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Strengthening the Sustainability, Quality and Competitiveness of Irish Higher Education: Trends and Propositions to Provoke Debate

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Executive Summary

Macro Trends In Higher Education Internationally

The following is a summary of the trends internationally set out later in this paper that are likely to be most impactful on higher education in Ireland and internationally -

- The economic and political environment over recent years has increased the imperatives around higher education. More people have an interest in higher education and there are accordingly a growing and wider range of different interests to which it must respond. This is also a time when governments are facing competing demands for state-led initiatives with respect to health and social services, labour-activation and other safety-net initiatives, economic supports and stimulus programmes. In addition to national and international/geopolitical events, such as the Russian invasion of Ukraine, these developments will likely impact on the resources available to higher education.

- The Covid-19 pandemic and its social and economic consequences are likely to accelerate pre-existing trends, expose underlying weaknesses in higher education systems and, on a more positive note, open up opportunities.

- Higher education has become a global enterprise. and the growth of the global and geopolitical significance of universities has been transformative in recent decades. This is reflected, *inter alia,* in the competition for talent globally.

- The higher education and research landscape is changing. It is both more collaborative but also more competitive.

- The Fourth Industrial Revolution is likely to have a transformative effect on how people live, work and interact with other people and things in the future. Climate change is also a significant factor in terms of the way in which new policies and regulations will impact on both enterprises and consumers.

- The composition of the learner cohort is becoming more diverse according to socio-economic circumstances, age, gender and race/ethnicity and drawing in students who are first-in-family and/or adult learners with implications for equity, access and active ageing.

- The digital transformation has implications for the development of a next-generation learning environment and equipping learners with the relevant knowledge and skills. It also opens up opportunities for greater collaboration in research, engagement, internationalisation, professional development, etc.

- Higher education is in the process of a learning revolution. Even before the Covid-19 pandemic moved teaching and learning on-line, the pedagogical landscape was changing. The digital revolution is one aspect of these changes which also includes changes in teaching and learning, and new forms and formats of qualifications.

- As the role of education in national development and personal opportunity has become more important, there is increased emphasis on oversight and regulation; alignment between what educational institutions do with national objectives; and monitoring and reporting.

- Increased emphasis on the civic responsibilities of universities, and the role they play with regard to sharing knowledge and the outcomes of knowledge for the public good, for example in their response to the SDGs, and in their communities through collaborative partnerships.

Implications Of Trends And National Policy For The Future Of Irish Higher Education And The Wider Tertiary Education System

It is time to rethink the model of Irish higher education provision

Near universal participation in tertiary education has been a huge achievement for Ireland. Yet, despite this expansion, the model of education provision has remained relatively unchanged as if it was still a system catering to a small elite. Much more radical thinking is required as to how we design, organise, deliver and assess higher education and its relationship to other forms of tertiary education and training. For example –

Educational policy and the structure of education programmes are based on full-time study and too much attention is given to staff-student ratios which reflect a romantic idea of small groups of class-room based learners – whereas mass participation higher education is eroding this model.

The academic year continues to run primarily from September to May. There is no educational reason for these practices and it is an inefficient use of expensive infrastructure and human resources. Changes to facilitate learners who wish to adjust their study to fit in with changing life circumstances and/or to reduce the opportunity cost of education, including the introduction of a third/summer semester, would be easy wins.

Boundaries between the workplace or community as a learning site and HEIs are becoming more porous and this should be accelerated. Credit transfer systems and digital credentialing can facilitate mobility and allow learners to accumulate credits over time according to their circumstances.

Greater commitment to flexibility and responsiveness is required. Students should be empowered to tailor their entry, exit, assessment and qualifications to their personally determined needs rather than being required to fit a standardised model. To better reflect

the flexible tertiary system we want and require, the funding model for our institutions needs to change to both reflect and drive changed circumstances and objectives.

We need a comprehensive higher education management information system

Good strategic management of the higher education and research system relies upon having a reliable and common information system. Without a system for collecting, processing, analysing and reporting on data (qualitative and quantitative) it is extremely difficult to know how well Ireland, and its institutions, are doing and to plan accordingly. Essentially Ireland collects bits of information but it is all held in different systems controlled by different departments and agencies, and the systems do not communicate with each other.

While DFHERIS has launched a public consultation with respect to a National Research Classification System, and the IUA is looking at data capacity and metrics, none of these actions suggest a joined-up strategic approach to critical infrastructure. The absence of a comprehensive approach to information and data severely undermines the level of strategic governance appropriate for national or institutional level decision-making and strategic planning. The EU pledge to establish a European Higher Education Sector Observatory to combine existing "EU data tools and capacities in one single place...." is potentially very significant. Ireland would do well to draw lessons and inspiration from this decision.

Ireland is playing catch-up in the digital revolution

Irish HEIs have rightly won praise for rapidly changing their educational format from on-campus to on-line in response to Covid. But an emergency response is not equivalent to high-quality on-line or blended learning.

Open and distance learning is its own unique learning culture. But, there should be no significant quality difference between distance teaching and classroom instruction in achieving student learning outcomes, A blended physical and on-line learning environment, underpinned by innovative pedagogical principles, is likely to be attractive to a wider range of learners and meet student expectations and needs.

However, digital transformation is more than teaching and learning. It concerns the entire way in which HEIs use digital technologies to innovate, simplify, and improve, to aid student achievement and enhance the student experience, support the academic endeavour and research as well as strengthen strategic planning and decision-making.

Any chance of competing successfully in the 21st century requires a step-change in Ireland's approach to ODL. A systemic and strategic approach will be necessary rather than each institution developing its own approach and competing with each other. Achieving high-quality ODL is not however a cheap(er) option nor should quality be sacrificed for efficiency.

We need a well-functioning national research system

The Irish research, science and innovation landscape has been transformed in the years since the millennium. The research base has expanded significantly with evidence of critical mass as well as pockets of excellence. The underlying ambition of research policy in the State has been towards positioning Ireland's research system as a European, even a global, leader. Our economic sustainability requires nothing less.

While Covid-19 has had a positive effect on how people view science and scientific discovery, there is a risk that excessive focus on medical and biological science will be at the expense of a more holistic approach to research and innovation. The social sciences, humanities and cultural disciplines are critical to our understanding of how we are going to live with, and resolve, global challenges. Some approaches that present themselves include more focus on clustering and challenge-based collaborative centres, efforts to achieve a better balance between social and technological innovation and building a sustainable researcher pipeline to strengthen Ireland's attractiveness to international researchers. We also need to think about the way in which research is assessed. Where and how we invest limited funds and issues of equality, diversity and inclusion of people and disciplines are critical to success.

A genuine commitment by HEIs to open access and open science, which incorporates the public sector and public libraries, should be a core feature of the research system. Facilitating the widest possible access to this research infrastructure is essential to achieve the greatest return on investment and value for money for the country and for the research community.

Heretofore, Ireland has had individual agency strategies. Without an integrated national policy and research system Ireland will continue to struggle. The creation of a government department covering further and higher education, research, innovation and science is especially timely and can only enhance effectiveness and efficiencies and strengthen higher education-based research with clear regard to the broader needs of the sector, the individual institutions and overall national policy.

Higher education needs to be place-based …..

Higher education has a very large role to play in helping build sustainable communities. *Project Ireland 2040: National Development Plan 2018-2027* identifies the importance of education and skills not only for attracting FDI but strengthening Irish SMEs and contributing to social and cultural life throughout the country. There is a huge inter-dependence between economic growth and innovation, and knowledge and skills, the latter of which derive from, and depend upon, people with skills relevant to regional and national economies. In their regional impact, HEIs make an enormous contribution to all the social, cultural, intellectual and environmental aspects of society and play an indispensable role in helping communities overcome the multiple challenges they face.

The role of HEIs as anchor institutions in their regions, and the societal impact and benefit that derives, are increasingly used as measures of quality and excellence as well as a differentiator in the competitive HE landscape. The appointment and promotion system, including the indicators used to evaluate university performance and research, should be revised to fully recognise the value and diversity of academic contribution to place across all disciplines.

…… and globally-competitive

On the international level, understanding the totality of the value and benefits that derives from transnational cooperation forms a key aspect of the EU *Strategy for Universities* and the *Council Recommendation on building bridges for effective European education cooperation*. Irish policy remains one of seeing international students as "cash cows" with an emphasis on cost effectiveness and economic impacts.

But, focusing primarily on growing international students as a percentage of total enrolments misses a bigger picture. Ireland can begin by embracing the structural and operational issues that can unblock barriers to transnational cooperation by, inter alia, changing quality assurance arrangements to more easily enable the delivery and recognition of joint educational programmes and joint degrees, etc.

Internationalisation needs to move from the periphery to becoming a core activity of higher education. The benefits of the global and intercultural must become genuinely embedded holistically across the whole institution as a learning outcome for all. We should stimulate global learning for all by paying more attention to the internationalization of the curriculum, embracing COIL (collaborative on-line learning), internationalizing teacher and foreign language education, and integrating internationalization initiatives with other efforts to reach the Sustainable Development Goals (SDGs).

We need to strengthen the steering core and academic heartland

A university's greatest asset is the quality of its people. While much discussion about challenges focusses on senior leadership, we tend to ignore that some of the heaviest lifting is undertaken by heads of school or department or similar posts across academic and research management. HEIs would not exist without their academics and researchers – who are the "academic heartland". They are responsible, at a very practical day-to-day level, for dealing with the pressures of a mass and diverse system, on-going challenges associated with resources and resourcing and emergency responses to Covid-19. Changes in the student cohort and the way in which education provision is organised is impacting on the academic profession.

Administrative, technical, maintenance and professional staff are too frequently overlooked – sometimes by other university colleagues. Yet, these are core to the ability of an HEI to

successfully achieve its mission and ambitions. As such, they should be seen as co-equal partners in achieving the academic mission of the institutions.

Ironically, we probably spend more time talking about HEIs producing human capital but too little time thinking about the human capital of our HEIs.

It is time to recognise the contribution of private higher education

Over recent decades, significant growth has occurred in private higher education (PHE). internationally. PHE has expanded to meet and absorb demand in response to demographic pressures and on-going massification, continuing transition to knowledge-intensive economies and changes to the labour market, the expansion in lifelong learning, as well as the contraction of public budgets.

Although still a small sub-sector here, PHE has been a growing component of provision in Ireland. It constitutes a very diverse group, providing specialist education in public administration and business, medicine, and other health-related professions, teaching and ICT, in addition to a wide-range of undergraduate and post-graduate programmes.

The *National Strategy for Higher Education to 2030* (2011) discusses the role of private higher education in terms of providing specialist programmes, meeting unmet future demand as well as being part of Ireland's internationalisation strategy. The Higher Education Authority Bill 2022 also has important implications for PHE opening the way for PHE institutions to join the regulatory and reporting system for Irish higher education. The clear advantage of being a designated HEI for PHE institutions is the status it confers and the potential for marketing nationally and internationally. The downside may be the regulatory regime that designation brings with it.

The Bill's proposals mark a significant advance in creating a more coherent and co-ordinated higher education system encompassing private and public providers. However, what is still lacking is an overarching policy for higher education where the role and contribution of PHE to national objectives would be placed in a strategic context with the role and contribution of the public HEIs. Crucially, absent also is any proposal to include eligible students in PHE institutions in the SUSI and other student support programmes. This is an issue of fairness and equity that must be dealt with if PHE is to play its fullest role in meeting our higher education and training needs.

Propositions For The Future Development Of The Policy Framework For Higher Education

In a time of great societal challenges, higher education should be front and centre in supporting society to meet them. But such challenges also call for the adoption of effective national policy and strategic choices to help shape the direction of the sector for the future.

This paper concludes with **21 Propositions** – grouped under four headings – that could form the basis for strengthening the quality, competitiveness and sustainability of Irish higher education and research. Each proposition is like an onion, capable of being unravelled and dissected. They are meant to challenge current thinking and provoke debate and discussion; they are not presented as ready-made recommendations.

There are three dominant messages. First, a system approach can deliver the greatest collective impact and economies of scale in order to provide the best opportunities and benefits for students and Irish society. Second, change is coming. Ireland is either in the vanguard of change or it will be left behind. Third, we need to refocus on how we view higher education and the wider tertiary education system by looking at it through an equity and inclusiveness lens. The present system – to a very great extent – perpetuates past privilege. Having a shared inclusive vision of the way forward is essential.

DEVELOPING A CO-ORDINATED, COLLABORATIVE HIGHER EDUCATION, RESEARCH AND INNOVATION SYSTEM

1. The creation of the Department of Further and Higher Education, Research, Innovation and Science provides the opportunity to develop an **Integrated and Collaborative University-Based Research System** firmly anchored in the HEIs and fully co-ordinated with the teaching and learning mission and overall national policy. It should embrace all disciplines, encourage social and technological innovation, and be place-based and globally competitive.

2. **Regional Knowledge and Innovation Clusters** should form the primary policy instrument for delivering greater co-ordination and collaboration between HEIs and other education providers, business and civic society. As a pathway to competitiveness, they leverage opportunities of place-based strategies and maximising capacity and capability.

3. **Academic and Research Capacity should be pooled** by developing national doctoral programmes which both encourage and build upon institutional specialisations and maximise Ireland's international attractiveness to students, professionals and business**.**

4. An **Internationalisation Strategy** that is comprehensive and inclusive should be developed that widens out opportunities for joint degrees and other international initiatives, and brands and promotes Irish education collectively on a unified national basis.

5. The contribution of **Private Higher Education** within the tertiary education system should be recognised and broadened through formal contractual arrangements between government and the institutions for the provision of education and training. Students in PHE institutions should be included in SUSI and other student support programmes.

6. Require HEIs to **Develop and Implement Professional Development Plans,** including succession planning for their staff having due regard to the requirement that.

recruitment and promotion systems more appropriately reflect equality on grounds of gender, ethnicity and race.

7. **Reform Staff Contractual Arrangements** to reflect changes in the academic environment, academic provision and the organisation of academic programming including movement to on-line and blended teaching and learning.

WIDENING EDUCATIONAL OPPORTUNITIES AND IMPROVING OUTCOMES

8. Sweeping reform of the **Academic Calendar and Programme Provision** should be considered to provide:

    - More flexible education and training opportunities especially for part-time students, delivering on the years-long commitment to lifelong learning which has only very partially been met;

    - Optional expedited completion of programmes and graduation;

    - More focus on work-based/work-informed learning, employability and work placements, competency-based education (CBE) and the new forms of apprenticeship;

    - Shorter courses/programmes and new forms of modularised and micro-credential programmes;

    - Year-round use of education and training infrastructure with greater porosity between full- and part-time provision.

9. In order to balance demand for further and higher education place a **Cap on the Number of Students Entering Higher Education.** This should be combined with a much enhanced and well-resourced career advice service for second-level students and adults interested in returning to education/training to ensure more informed choices about the options for tertiary education and overcome biases that exist in society.

10. A **National Credit Accumulation and Transfer System** would create opportunities for learners of all ages and ability to progress through tertiary education by building credits and credentials over time, according to their abilities and circumstances, and carrying them from one programme, or one institution, or form of education and training, to another. This should facilitate students transferring between programmes and/or institutions if circumstances or interests change and bring a new dynamic to the concept of lifelong learning.

11. **Guided and Navigable Learning Pathways** can help facilitate learner progression through tertiary institutions and programmes into work and back again. It is complementary to a National Credit Accumulation and Transfer System. Pathways can provide clear guidance for learners of all ages and abilities in line with the NFQ.

12. In addition to measures to support greater equity of access and participation from students from a wider socio-economic background, the process of **Assessment at Second Level Should Be Reformed** to reduce the singular focus on a high stakes, high pressure leaving certificate which in many respects perpetuates social and economic privilege. It should be replaced with more innovative approaches to assessment that capture the wide range of student learning and achievement.

13. Establish a **National Open and Distance Learning (ODL) Platform,** providing an internationally competitive education and training system, while avoiding the costs and other inefficiencies of institution specific solutions.

STEERING AND FUNDING THE SYSTEM

14. An integrated further and higher education intermediary body to form a **Tertiary Education and Research Authority (TERA),** providing the basis for a more coordinated approach to education and training, research and innovation. The TERA would play a more significant role as the over-arching governance and performance structure for the tertiary system.

15. **Change the Funding Model for Tertiary Education** to support the learners and system we want**:**

    - To encourage greater and wider access into, and through, the tertiary system focusses public funding on NFQ Levels 5-7. Students would be eligible for two years of tuition under this proposal;

    - To better reflect and encourage flexibility, shift funding away from the number of students enrolled;

    - LLL vouchers should provide open pathways for learners to come in and out of the tertiary system;

    - To encourage and reward "system-ness" and regional impact and benefit, funding should be directed to/through regional clusters. This requires formal governance structures.

16. Reform the **System Performance Framework,** in terms of what it is trying to achieve, the processes which underpin it, the evaluation criteria and the connection to funding to ensure that it better balances regional, national and global ambitions and undoes the extent to which the exercise has become a bureaucratic exercise, the value of which is being increasingly questioned.

17. Use the reformed performance framework to create a more fully collaborative higher education system which would encourage greater **Programme Specialisation** as a way to reduce inefficient programme duplication, strengthen institutional differentiation and improve efficiency, quality and competitiveness.

DEVELOPING A COMPREHENSIVE INFORMATION INFRASTRUCTURE

18. **A National Digital Platform** would provide a shared digital infrastructure promoting and supporting open access solutions and scholarly and other resources, data and analytics, training, advice and other services for further and higher education and research, libraries and museums (HE, government and public), other public services and society at large. The aim is to ensure Ireland is among the most digitally advanced countries in the world.

19. Develop and resource a **National Shared Services Infrastructure**, providing for areas such as libraries, accommodation, sports facilities, personnel and other back-office services.

20. Expand work on a **Tertiary Education Database** to provide a comprehensive approach to information and data across all dimensions of tertiary education, including the entire cohort of students, graduates and staff, and learning experiences. The aim is to significantly strengthen our collective and individual institutional capacity and capabilities for strategic planning and analytics, student support and outcomes, and benchmarking. This should link with the Research Information Management System, mentioned below.

21. A **National Research Information Management System** based on FAIR (findable, accessible, interoperable, reusable) principles – to store, manage and exchange contextual metadata and enable exchange between institutional research information systems and repositories. It should focus on quality outcomes, impact and benefit for knowledge and for society across all disciplines and the entire knowledge-innovation cycle in order to enable appropriate levels of strategic decision-making and analysis.

Strengthening the Sustainability, Quality and Competitiveness of Irish Higher Education: Trends and Propositions to Provoke Debate

1. Introduction And Overview

1.1 Introduction

This paper focuses on: -

- The major trends – both national and international – currently impacting, or expected to impact in the future, on higher education institutions (HEI) (including developments at EU level);

- The extent to which the current evolving national policy framework for higher education and the wider tertiary education system (TES) is aligned with, and equipped to respond to, these trends in order to maximise the contribution of the combined system to the delivery of national strategic outcomes and which validates the characterisation of tertiary education as a strategic national asset;

- The implications – positive and negative – of those trends for the future direction of higher education in Ireland, and the wider TES where relevant, with a particular focus on issues potentially impacting on the sustainability and performance of the HEIs as well as those which appear to create significant opportunities for the sector;

- Arising from the assessment of these issues, a number of propositions are set out to act as an invitation, even provocation, for debate.

1.2 Context

Our higher education institutions are a major driver of Ireland's social, cultural and economic development. They provide human capital through education and training – attracting and retaining high-skilled talent and investment, playing a critical role in the knowledge-research-innovation eco-system, underpinning our global competitiveness at national and regional level and playing a crucial role in addressing inequality in Irish society. They generate new ideas, encourage critical thinking and foster creativity and leadership. We are not alone in this. The EU has put European values and European higher education at the heart of its future in its recently published *European Strategy for Universities*, and *Council Recommendation on building bridges for effective European higher education cooperation*, along with the *Staff Working Document*.[1] Internationally, these are the expectations of higher education from governments and citizens.

Skills and employment are critical outcomes of our higher education system but they are not the only indicators of success, or of demand. Desire to participate in higher education is underwritten by the values of 21st century society and in turn reflects the aspirations for individual, family and community self-determination and eagerness to participate actively in local, national and global life. Economic growth and well-being reinforce each other. Good outcomes for individuals have positive impacts and benefits for family life, health, crime prevention, citizenship, civic engagement, social justice and public discourse. The benefits of higher education "are not limited to people who are, or have, been students" but extend across society.[2] Democratic societies require, and are sustained by, an engaged well-informed citizenry.[3]

As a result, there is no aspect of our social, cultural and economic life that is not affected, in some way, by the sustainability, quality and competitiveness of our HEIs. Figure 1 below illustrates these connectivities and interdependencies – across different aspects of society and policy. HEIs, what they do and how they perform, sit at the epicentre of all of this.

Figure 1. HEIs Sit at the Centre of a Complex Policy Eco-System
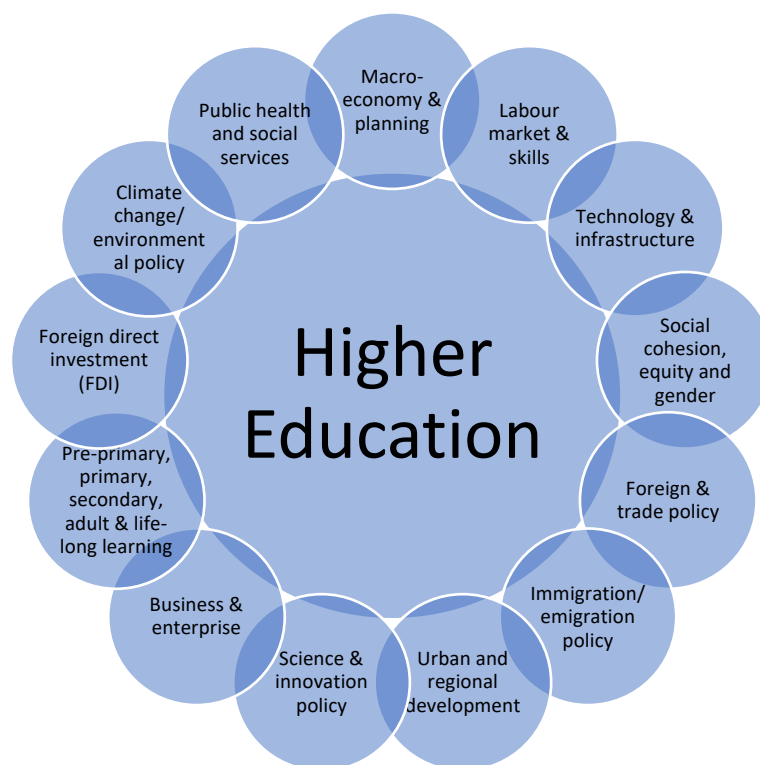
Source. Adapted from Hazelkorn, 2020[4]

While the focus of this paper is primarily on higher education, it is imperative that the overarching national policy frameworks for further and higher education are fully aligned and that these in turn are aligned with the objectives articulated in a range of relevant current Government strategies. In this way, the role and contribution of the tertiary education system, as a key driver of national strategic outcomes and objectives, can be fully realised.

The world is in a state of flux, and the future is less predictable than ever. Apart from the impact of populist governments and leaders with their ultra-nationalism, antagonism towards internationalisation and their hostility to intellectual and scientific endeavour and academic freedom, the Covid-19 pandemic and its social and economic consequences are likely to accelerate existing trends, expose underlying weaknesses in the higher education system and, on a more positive note, open up opportunities. As if these developments were not enough to create greater instability in the world social and economic order enter President Putin with his thirst for warlike conquest.

As demands on HEIs grow, governments are facing competing demands for state-led initiatives with respect to health and social services, labour-activation and other safety-net initiatives, economic supports and stimulus programmes.

So how should we begin to think about the medium to longer term issues which will be important for all of us: our HEIs, academic and administrative staff, current and future students, and Irish society as a whole. How relevant are the mega-trends identified in this paper for Ireland and its higher education system? Are there other trends we should also take account of? Is the impact of some trends more likely or predictable than others? What administrative and governance structures will we need? And how is the system to be funded? These are some of the questions which a comprehensive policy review should address. In the final section of this paper a series of propositions or assertions are set out to act as an invitation and as a provocation for debate.

2. Macro-Trends Impacting Or Expected To Impact On Higher Education In The Future

As the world has become more globally integrated, higher education has become a global enterprise. As already noted, HEIs make a vital contribution to the future through their graduates, new and innovative ideas and discovery, and on-going engagement with the wider community and public discourse. Notwithstanding criticisms of globalisation, contemporary higher education operates and benefits from an open global system in which boundaries are increasingly porous. This includes student, academic and professional mobility but also education and research programmes, global knowledge flows and networks and other internationalisation initiatives. The growth of the global and geopolitical significance of HEIs has been transformative over recent decades.

This section presents an overview of key social, demographic, economic and technological factors impacting on, and influencing, higher education and research with relevance for Ireland and Irish HEIs. Discussing challenges and opportunities for Ireland in the context of global developments is not straightforward. National contexts differ and there are signs of convergence with movement towards greater harmonisation and divergence, with evidence

of different effects within and between countries and across the global landscape.[5] Because policy choices matter, this overview of macro-trends is designed to prompt longer term strategic thinking in order to strengthen the sustainability, quality and competitiveness of Irish HEIs.

2.1 Demography and the Global Talent Pool

The world's population is expected to reach 9.8bn by 2050, and 11.2bn by 2100. Most of this growth is anticipated to occur in Africa. The population of more developed regions is expected to remain relatively stable over the next decades before declining due to a combination of factors including lower fertility rates and smaller households.[6] By 2070, EU countries will represent less than 4% of the world's population compared with about 6% today. As life expectancy increases, the share of people in the older age groups will increase while those in the working-age population are projected to decrease. Also, by 2070, 30% of people in Europe are estimated to be aged 65 and above, up from about 20% today and the number of children and young people (aged 0-19) is projected to decrease.[7] These developments are helping to redefine the concept of "old age" as people live healthily and actively, and work, longer.

Increasing educational participation is a global phenomenon driven by demographic and economic growth and public policy. Demand is driven by a desire for a good job and secure future. But that doesn't tell the full story. There is a strong societal effect between participation and the rise of the middle class with "penalties for non-participation".[8] Between 2000 and 2017, the global higher education gross enrolment ratio (GER)[9] increased from around 19% to 38% with notable regional and country disparities.[10] As a consequence, the number of students enrolled in higher education is estimated to reach 660m by 2040 rising from 28.6m students in 1970. This means students will constitute 10% of the world's population of 15-79 year-olds compared with only 4%in 2012.[11]

Today a diverse range of educational providers, public and private, cater for a demographically and geographically diverse cohort of learners. There are over 20,000 officially accredited or recognised HEIs, up from 12,000 in 1997 – although the number is almost certainly higher because of the way universities are legally determined in different countries.[1] The number of internationally mobile tertiary students worldwide has risen from 2m in 1998 to 5.3m in 2017.[12] Over 17m students are enrolled globally in distance education (2019)[13] and there are over 100m MOOC learners (2018).[14] The number of branch campuses has increased from c.84 in 2000 to 300+ today.[15]

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[1] Data provided by International Association of Universities (IAU), World Higher Education Database (https://whed.net/home.php), 06 March 2022. The number includes accredited and recognised HEIs globally, i.e. i) on an official list of accredited HEIs released by their national competent bodies (normally the ministry of education), ii) be a degree-conferring institution offering at least a four-year degree or a four-year professional diploma, iii) have had at least three cohorts, and iv) not institutions offering exclusively military or religious training.

If current trends continue, 70% of young people with tertiary education will come from non-OECD G20 countries by 2030.[16] It is anticipated that China and India will constitute almost half of all tertiary graduates while EU countries and the US combined will account for less than a quarter. This is in sharp contrast to 2005 when almost 17% of all tertiary graduates came from the US.[17] By 2030 also, a majority of the global population will be middle class, two-thirds of whom will reside in Asia. In contrast, the size of the European and North American middle class is stagnating.[18] China and India could account for more than 60% of STEM gradates in the G20 area, with Europe and the United States providing only 8% and 4%, respectively.[19]

These changes underline the dramatic shifts in the geographic balance of the global talent pool[20] and the impact of talent mobility. In 2022, 281m people were estimated to be living in a country other than that of their birth.[21] The cross-border movement of people and ideas is indispensable, especially for growing economies with declining populations. This makes many countries in Europe and the US more dependent upon immigration and attracting and retaining mobile students and academic professionals to fuel and maintain their economies as workers and consumers of goods and services. This also means that multi-culturalism and cultural diversity will become the norm, contributing to the on-going "shift away from the white middle-aged alpha male culture that has dominated,"[22] and altering the historic coherence between culture, ethnicity and territorially-defined nations.

2.2 Shifting Geography of Research, Development and Innovation (RDI)

Recent years have seen a rapid expansion of RDI performance in East/Southeast and South Asia. This trend is manifest in the significant increase in published science papers (such as physical sciences and STEM disciplines) since 2003 and most notably artificial intelligence (AI). China is forecast to be a global leader in science and innovation by 2050;[23] it is now the second largest scientific powerhouse after the US with 14% of the top 10% most-cited publications.[24] All this tell us much about geo-political tensions today.[25]

While geographic, linguistic and historical ties remain strong, international collaboration is beginning to outpace single authorship and institutional collaboration.[26] Internationally co-authored papers, as a percentage of all scientific papers, has more than doubled over the past 20 years, accounting for all the output growth by scientifically advanced countries.[27] International collaboration also accounts for increased numbers of patents with global teams featuring prominently, exceeding the performance of in-country patents and being better cited within and outside of the country. Global networks, open science systems and digital platforms are contributing to a wide diffusion of knowledge and realignment of research internationally.

This shift corresponds with changes in research production from discipline-driven to problem-focused.[28] The search for a Covid-19 vaccine mirrors earlier collaborative efforts with respect to SARS, MERS and Ebola – all of which required data sharing and collaborative efforts on a global scale.[29] Adoption of the UN 2030 Agenda for Sustainable Development (2015) is

significant in that it officially recognised that societal problems were territorially blind and that no country has the knowledge or research capacity or capability to solve such challenges on their own. Technological frameworks and initiatives around open science and open access – such as the EU's Plan S – and the shift to open research infrastructures based on FAIR (findable, accessible, interoperable, reusable) principles – are likely to be strengthened by recent developments.[30]

Two trends are emerging. First, the centre of gravity is shifting eastward and southward as new players and new mega-regions emerge and wield more power and influence.[31] Second, a multipolar scientific world is evolving in which many nations now actively participate rather than one dominated by only a few big powers.[32] Today, more than 40 countries are involved in global science; more than 100 countries were actively engaged in research to develop effective Covid-19 vaccines and treatments.

Global university rankings are rightly criticised for their inadequate methodology and unreliable data[33] but they tell us something about overall trends in international higher education. In 2003, the year the Shanghai Academic Ranking of World Universities (ARWU) first emerged, the Americas and Europeans dominated. In the years since, China's rise has been the most notable feature, albeit its rise masks the less spectacular but equally important changes happening amongst the BRICS countries. China had 7 universities in the top-100 in 2021 (with Tsinghua ranking 28 in 2021) compared with none in 2003. More significantly, China had a whopping 84[2] in the top-500 in 2021 compared with 19[3] in 2003 – an increase of over 300 per cent.[34] In comparison the UK has declined in both categories, with 8 universities in the top 100 in 2021 (cf. 11 in 2003) and 36 in the top 500 (cf. 42); likewise, the US had 40 universities in the top 100 in 2021 (cf. 58) and 133 in top 500 (cf. 170).[4]

The message is consistent: there is a more diverse set of players, universities and countries amongst the top rankings. And more significantly, there is a significant pipeline of emerging universities and countries appearing beyond the top-100.[35] The global landscape is more open but it is also more competitive. Countries and HEIs are competing with others which were little known several decades ago. Rankings are a lag-indicator; they simply confirm the changing global and geopolitical dynamics.

2.3 Technological progress and implications for skills and jobs

The Fourth Industrial Revolution is likely to have a transformative effect on how people live, work and interact with other people and things in the future.[36] Climate change is also a significant factor in terms of the way in which new policies and regulations will impact on both enterprises and consumers. New opportunities into the future will require higher-order

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[2] 2021: Of which Taiwan had 6, Hong Kong had 5, and Macau had 1
[3] 2003: Of which Hong Kong and Taiwan had 5 each.
[4] In contrast Russia had 2 universities in the top 500 in 2021 and 2003. Moscow State University was increased from 102-151 in 2003 to 97 in 2021.

cognitive, communication and interpersonal skills, complex problem solving, creativity, fluency of ideas and active learning requiring people to have broad-based skills alongside specialist knowledge.[37] The Covid-19 pandemic is accelerating these trends.[38]

Digital skills are essential to enable people to take advantage of opportunities, yet countries have great variation in the share of individuals with digital proficiencies.[39] 43% of EU workers have seen the technologies they work with change in the past five years while 47% have experienced changes in their working methods or practices.[40] At the same time, 55% of EU companies had difficulties filling vacancies for ICT specialists in 2019.[41] Furthermore, regardless of whether graduates live and work close to their home or are internationally mobile, they will operate as part of the global talent pool in an inter-connected world. This necessitates credentials being quality assured, mutually recognised and internationally comparable.

Precise information about which jobs are likely to be affected, automated, lost or displaced remain uncertain but change is already here. While there is the possibility of oversupply in some areas, there is considerable evidence of increasing needs for, and shortages of, people with adequate levels of qualifications in many areas.[42] This is due to a combination of factors.[43] The total labour force is increasing around the globe. However a geographic shift is taking place with industrial jobs falling in the West and rising in the East with high levels of within-region variation. Counter moves towards the reshoring or repatriation of manufacturing are also evident in response to concerns around hyper-globalisation and Covid-19.[44]

These developments will require on-going education and training to improve knowledge and support skill adaptation, and research and development to help mitigate effects. While our focus is on HEIs, it is important to note that developing competencies for problem-solving and innovation, as well as analytical and critical thinking, does not start in higher education. Children entering school now will live beyond the end of this century, and are likely to change careers, at a minimum, two or three times over their lifetimes.[45] This will necessitate greater coherence across the entire education lifecycle, from cradle to grave.

As higher education attainment levels have increased over recent decades, questions are being asked about "labour mismatch", a term used to explain divergences between qualifications, skills and employment.[46] Concerns focus around whether qualifications necessarily equate with better skills,[47] especially if people lack the right skills or cannot make use of them.[48] There are also allegations of grade inflation, concerns about graduate job-readiness and ultimately confidence in the credential and quality assurance system itself.[49] There is almost universal discordance between employers and higher education providers about graduate competencies required by/for the labour market.[50] Results of the OECD Survey of Adult Skills (PIAAC) – which show a sizeable proportion of adults in some countries having poor reading, numeracy and problem-solving skills and significant numbers with limited experience of computers – have increased these concerns.

The link between qualifications and occupations is complex and multifaceted.[51] Skill strategies are often based on the assumption that if enough skills are supplied to employers this can tip the scale towards greater output, quality and sustainability. But, skill supply cannot be considered or addressed separately from demand as well as wider non-employment factors e.g. family, socio-economic and personal circumstances, gender, race and ethnicity, and school settings. [52]

As national economies shift from mass production to knowledge economy occupations, countries have strong incentives to build-up the skills of their populations through higher education. Higher education is required to add value to student's credentials and life-enhancing skills. When concerns are highlighted, criticism usually focuses on HEIs and the appropriateness of the curriculum and whether graduates have the appropriate balance between practical skills, learning facts and critical thinking. These issues potentially challenge higher education's legitimacy as the guarantor of quality, especially in the context of changing national and global labour market conditions and new forms of credentialization.[53]

2.4 Internationalisation and Student Mobility

The number of internationally mobile students has been rising steadily since the 1990s, and is estimated to reach around 8m by 2030 compared with 2m in 1998, although growth varies significantly across countries. Key factors include both push (e.g. availability and quality of domestic provision) and pull (e.g., quality and reputation of host countries and their HEIs). International education[5] is estimated to reach more than €433bn globally by 2030.[54]

Over recent decades, there has been a noticeable change in the internationalisation of higher education, influenced by globalisation and the increased importance of knowledge. This has led to a shift from the primary focus being on cultural and academic co-operation to a broader and more competitive approach. This includes the race for talent, international student recruitment, strategic partnerships, income generation, rankings and institutional positioning.[55] In particular, the emphasis has shifted from recruitment of international students for short-term economic gain to recruitment of talented international students and scholars, (e.g., in STEM fields) to meet the needs of academia and industry. Skills shortages in these fields are caused by demographic trends, insufficient local student participation, and increased demand for innovation in the knowledge economy.

Attracting mobile students and academic professionals, especially if they stay permanently, is an important way to tap into the global talent pool.[56] It can help compensate for weaker

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[5] The estimate reflects the direct and indirect economic impact of the 5.1 million post-secondary students who were studying abroad in 2016, as well as their "induced" impact, meaning the ripple effect that international student spending has on jobs, tax revenues, and household income. Not factored in to the figure are the "intangible" other benefits these students provide such as "academic, research, experiential, and cultural dimensions contributing towards an inclusive, innovative, and interconnected global society."

domestic educational capacity, support the development of innovation and production systems, and mitigate the impact of an ageing population on future skills supply as the economy and labour market changes.[57] In Europe, internationalisation as a strategic process began with ERASMUS in 1987, opening up opportunities for within-Europe and international mobility. Linked with foreign, economic and trade policy, internationalisation can be an effective form of soft-power.[58]

The Covid-19 pandemic has had a disruptive impact on internationalisation but some trends were already evident.[59] The shift in the global share of international students has been evident for many years. The US and the UK remain in first and second place, respectively, but they have experienced "meagre year-over-year growth rates compared with countries such as China, Canada, Australia, Russia, and Japan".[60] This is due to a combination of factors. In recent years anti-immigrant sentiment and political developments, notably US policies under the Trump administration and Brexit, have been growing factors. More significantly, other regions, notably Asia, have expanded their provision while becoming more attractive and affordable for their own domestic and other regionally-based students, especially as their HEIs climb in the rankings.[61]

The future, at least in the short term, is likely to shift to being a buyer's market. As competitive pressures heat up, institutional and national weaknesses are likely to be exposed, and the quality and value-for-money of the offer will become even more important.[62] Global university rankings are often used to gauge perceptions of quality; at the same time, the ability to attract international students is used as an indicator of quality and prestige.[63] The pandemic shows how this (over)dependence has become deeply problematic.[64]

But internationalisation is much more than mobility and treating international students pejoratively as "cash cows". It includes all forms of international inter-institutional partnerships, cross-border higher education (branch-campuses, transnational education), e-learning, and internationalisation@home initiatives.[65] The EU envisages transnational cooperation as a way to structurally integrate and develop strategic cooperation across education, research and innovation and service to society through, for example, the European University initiative.[66] As such, future attention is likely to focus on these other forms of transnational educational programmes including post-graduate and post-doctoral opportunities which include work-visas and routes to citizenship.[67]

2.5 Equity, Access & Active Ageing

The composition of the learner cohort is becoming more diverse according to socio-economic circumstances, age, gender and race/ethnicity and drawing in students who are first-in-family. People are living longer and staying active longer. The arrival of an increased number of refugees in Europe is also contributing to a more diverse student cohort. At the same time, developments accelerated by sudden triggers such as the Covid-19 pandemic will require flexible responses from educational institutions.

The concept of a "job for life" has become redundant in the face of continuing global, technological and labour market changes.[68] However, across OECD countries "the share of students entering university at age 30 or older has not increased".[69] More significantly the percentage of adults involved in formal education and training remains very low – although the recent decline may be due to Covid.[70] Indeed, most HEIs are primarily oriented towards traditional 18-22 year-old students who study on campus and retain traditional academic year and timetabling patterns. Yet skills learned during school will not remain relevant 30-40 years later. The WEF estimates that "by 2022 approximately 54% of all employees will require significant re- and upskilling."[71] The USA may be a bellwether with students aged over 25 years or older becoming the dominant component of the HE student population.[72] A similar picture is emerging in Australia, which also shows a growing number of students never set foot on campus and instead study on-line and through other external modes.

Despite years of increasing and widening participation strategies, there is evidence of widening inequality gaps and growing divergences in educational opportunities and outcomes across countries. [73] Human capital theory and meritocracy held out the promise that effort and achievement rather than wealth or social class would shine through.[74] Yet, in every country where data is available, participation in higher education continues to be unequal from a social background perspective.[75] Disadvantaged students remain under-represented amongst those entering the system, and if they enrol they are over-represented in less prestigious institutions and/or degree programmes.[76] Due to deeply embedded social-cultural advantages held by more affluent groups in society, opportunities for upward mobility vary so considerably that it is no longer certain that a higher education qualification is sufficient for personal success and social equity.[77] It is not simply an issue of access but access to what? – a question which points to increasing awareness that differentiation of institutional missions has led to stratification of opportunity.[78] HEIs which have provided a gateway to opportunity have also acted as formidable gatekeepers as they pursue prestige at home and abroad.[79]

The expansion of tertiary education in OECD countries over the past decades has benefited women more than men: 51% of 25-34 year-old women now have a tertiary degree on average across OECD countries, up from 40% in 2008. However, women are still under-represented in STEM fields of study and over-represented in health and welfare across all tertiary levels.[80] There also remains a strong male dominance in ICT-related disciplines with only one in five new students being female.[81] Significant gaps also persist between the rising number of women as students and those in leadership roles.[82] Organisational and cultural barriers to career opportunities continue to exist.[83]

Attention is drawn to learners who are gradually being "left behind" by the current system and those who are unable to access the system in any meaningful and sustained way. Widening access to under-served groups, and to those who have been inactive, is essential in order to meet societal and labour needs as well as stem societal inequalities resulting in alienation of significant groups of people and rising social tensions. There is a necessity to

expand educational opportunities and being much more innovative in order to cater for re-skilling and up-skilling for those in the labour force or wishing to re-join. This includes women after child-birth or rearing or people affected by personal, social and economic circumstances.[84] Furthermore, countries experiencing demographic change are likely to become increasingly dependent on developing the skills of older adults. Thus, providing educational opportunities for mature learners is a sustainability issue. The new learner landscape presents significant challenges to the existing model of compulsory education which envisages students progressing systematically from primary to secondary to tertiary and then into lifetime employment. Indeed, if lifelong learning is to be fully realised, it starts with recognising all learners as life-long learners – and then rethinking educational design and delivery accordingly.

2.6 Digitalisation and the Pedagogical Revolution

We are only in the "early stages" of a learning revolution. Even before the Covid-19 pandemic moved teaching and learning on-line, the pedagogical landscape was changing albeit slowly. It was clear even then that "much face-to-face teaching was – and is – badly in need of radical reform."[85] The digital revolution is only one aspect of required changes, albeit recent events have brought them into sharper focus.[86]

New teaching and learning pedagogies with an emphasis on student engagement (e.g., problem-based learning and students as co-creators), the use of technology in classroom (e.g., virtual learning environments, adaptive learning, immersive environments, mobile learning, and flipped-classrooms) and new innovative forms of assessment are redefining the way students learn and the role of the lecturer/teacher. There is growing interest in new forms of internships and work-based/work-informed learning, earn-and-learn models as well as applied- and community-based research, competency-based education, and micro-credentials.

Competency-based education (CBE) has primarily been a feature of education in the USA although the concept is well-embedded in vocational education. Recognition of Prior Learning (RPL) – a process to evaluate skills and knowledge gained outside formal education and training – has some similarities. By assessing student learning in terms of demonstrable competencies (which can include knowledge, skills and attitudes) and not as a record of classes attended nor time taken, CBE and RPL offer a flexible means to support adult, part-time and mobile learners, as well as refugees and migrants drawing on their knowledge and skills.[87]

Digital learning tools are transforming learning and provision.[88] They include e-learning and other digital measures such as blended learning, the creation of MOOCs and Open Education Resources (OER),[89] the use of e-learning platforms, collaborative learning platforms, digital assessments, etc. Open and Distance Learning (ODL) is not a new phenomenon but it is now playing a crucial role in providing access to millions of people globally despite perceptions of

lower quality and status.[90] It has the potential to facilitate access to students for whom constraints of the standard university experience (time, location, cost, etc.) pose a barrier to entry.

The changing student cohort and the labour market has led to an increase in shorter courses which are seen as better adapted to acquiring skills and competences needed by the labour-market. Micro credentials refer to a very wide range of credentials tied to short, flexible learning opportunities that are focussed on specific skills or knowledge. They are distinct from, but can also be seen as both independently coherent and building blocks towards larger "macro-credentials" such as traditional university degrees (e.g., Bachelor's or Master's Degrees) diplomas and certificates.[91] Many are offered by private providers and by employers. They vary in quality, which is a significant challenge. Steps are being taken to include non-formal and informal courses, as well as micro credentials, within quality assurance processes and qualifications frameworks. These would go a long way to ensuring a transparent system of credits open to everyone regardless of which institution they study at.[92]

Adoption of just-in-time concepts – whereby learning can occur anytime, anywhere – will transform the rhetoric of life-long learning into reality. Accessing education should not require months and years of planning, countless applications, using savings or taking out huge loans and/or giving up months or years of your life to match an institutional schedule. New forms of learning raise questions for quality assurance. But they also raise fundamental challenges to (public) HEIs. If they fail to respond to opportunities, private providers are offering an alternative "product". Partnerships are being forged between public and private institutions, with many specialist providers emerging.

Such developments have huge implications for HEIs and their business model. In many countries, public higher education was the principal provider of education and research, but this is no longer the case. Future success requires that institutions offer an innovative and "coherent institutional approach to learning, teaching and assessment" rather than individual initiatives or using specific digital tools.[93] It also requires leadership and management capabilities, as well as continuous professional development. In this way, changes are potentially transformative not just for the individual learner but for higher education and society.

2.7 Steering and Funding the System

Governance and regulation arrangements are central to the aim of governments to steer higher education systems and institutions so that they better contribute to the public interest as stated in national objectives.[94] As the role of education in national development and personal opportunity has become more important, new governance and funding arrangements and regulations have become more necessary. These developments represent a "shift from an earlier uneasy balance between professional and state control to some new

combination of state and market control."[95] Concepts such as "managerialism" and "corporatisation" are often used to explain and describe a process of profound reform and restructuring across public services, with implications for the management and organisation of HE, and academic culture and work.[96] Internationally there is no one dominant governance model.

Because higher education is key role to producing and attracting talent and knowledge, and underpinning competitiveness, how educational institutions are managed and led has become a matter of public and political interest. This transformed higher education from a locally-based institution to one with geopolitical significance. Global rankings have played their part, comparing and measuring success in terms of global science. Accordingly, there is increased emphasis on oversight and regulation; alignment between what educational institutions do with national objectives; and monitoring and reporting. Higher education may refer to itself as pursuing the public good, but this must now be demonstrated and evaluated in terms of outcomes, impacts and benefits.[97]

As public budgets have become constrained due to national or international circumstances and growing societal demands, an investment gap has opened up.[98] Across Europe the divide between higher education systems that increase and reduce public funding is getting wider – some based on ideology and others due to circumstances,[99] the aim is to make "funding work more effectively in education and research."[100]

There are two key trends – but ultimately the policy choices are shaped as much by financial/economic considerations as by societal/cultural factors.

First, performance-based funding (PBF) mechanisms seek to align higher education activity and outcomes with specific/national objectives while balancing institutional autonomy.[101] Different models may include performance frameworks and/or strategic dialogue or, formula-based allocation models. Many models use input measures, such as student numbers, although the use of output criteria, such as graduation or progression rates – or other objectives – is increasing.[102] These models operate irrespective of the actual amount of funding available because regardless of the percentage of public funding an institution receives or whether institutions are private – not-for-profit or for-profit – they all impact on society. Its a version of the JFK statement, its what higher education can do for society that counts.

Second, different schemes are being pursued to reduce the gap between what the public purse can afford and what the system needs. There is little doubt that higher education is costly for learners due to tuition fees and non-study costs. The issue of cost-sharing aims to balance social and personal benefit while avoiding regressive characteristics associated with free fee schemes. Radical policy changes, such as the introduction of tuition fees accompanied by income contingent loan schemes[103] (as in England or Australia) or their abolition (as in Germany) do occur, but these are the exception.[104] Systems that can mobilise both public and private resources tend to be able to achieve higher levels of spending than those that rely

only upon public resources, leading to improvements in equity (as more study places are made available), and quality (as improved human and physical resources are provided to learners).[105] Ultimately the costs associated with providing high quality and internationally competitive higher education are likely to continue to increase.

2.8 Public Trust and Civic Engagement

The underlying assumption of economic development and massification has been that each generation would be better off than the previous one; progress has been seen as a birth-right. However, income inequality is at the highest level for the past 50 years.[106] Every generation since the baby boom era has seen the middle-income group shrink and its economic influence weaken.[107] Despite the fact that higher education is in growing demand, more people feel left behind.[108] Globalization has brought benefits but it has also generated inequalities and increased economic insecurity felt by individuals, their families and communities. This has led to widening disparities in wealth and opportunities, and political views, according to educational attainment, institutional status and place. Many countries are experiencing reduced voter turn-out and a rise in fake-news, hoaxes, conspiracy theories and misinformation. Even reaction to the pandemic has become a partisan issue. Together, these developments are leading to concerns about a decline in public trust and increasing social tensions with a worrying concern that government is unable to solve societal problems.[109]

The economic and political environment over recent years has increased the imperatives on higher education. More people have an interest in higher education and there is accordingly a growing and wider range of different interests to which it must respond. There has been less public tolerance of what is often seen as academic privilege and self-promotion.

Public debate has taken different forms in different countries but common concerns include whether graduates lack appropriate skills or study the wrong subjects or whether too many students are encouraged into higher rather than further/vocational education. There is also increasing focus on the performance of the system as a whole. This goes beyond looking at individual institutions and looks at access, participation and opportunities for success. Questions are being asked about whether college is worth it. Approaches to financing higher education are also changing in many countries with greater emphasis on cost-sharing. Discussions around improved quality and better accountability and efficiency in the use of public funding challenges the traditional role of academics and the balance between autonomy and accountability. Conversely, it could be argued that the increased attention simply reaffirms higher education's increasing importance to the sustainability of society and economy.[110]

These developments have prompted and coincided with renewed thinking about the role HEIs play and their responsibilities with regard to strengthening social and economic sustainability, public discourse and democratic values. Democracies require active well-informed "global" citizens who can fully participate in, and contribute, to society at all levels. The strong

emphasis on engagement, collaboration and societal impact and benefit is in response to the very deep economic and social crisis of recent decades and partly a rebuke to a perceived overemphasis on prestige-seeking behaviour.

Three inter-related trends dominate both the policy and academic landscape.

- HEIs are urged to develop deeper engagement with their communities in response to growing social and economic challenges.[111] HEIs should be valued not only for what they are "good at" but what they are " good for."[112] The Civic University agenda uses various terminology (e.g., community, civic, regional) as a call to action. The aim is to encourage much authentic university engagement with their local or regional community as an integral component of teaching and research.[113] The Smart Specialisation Strategy (S3)[6] urges HEIs to adopt a place-based approach[7] and to strengthen their role as an "anchor institution".[114] Responsible Research and Innovation (RRI)[8] applies similar principles to RDI, thus urging HEIs and researchers to engage with other societal actors to "better align both the process and its outcomes with the values, needs and expectations of society."[115] The UN Sustainable Development Goals (SDG) affirm the importance of collaboration to solve global societal challenges.[116]

- Greater consideration about how tertiary systems can better operate has been triggered by the complexities associated with near universal participation rates and economic and demographic change.[117] Focus on system architecture and governance has highlighted concerns that (semi)rigid boundaries between, and biases about, academic, technical and vocational education and training (VET/TVET) are closing off education and career opportunities rather than encouraging learner success and innovative thinking.[118] Different governance arrangements are being proposed albeit simply changing the names on ministries or agencies will not bring about sufficient change.[119] Regionalisation is another component of this approach. Thus, considerable emphasis is being placed on collaboration and joined-up thinking to create a coherent educational eco-system.

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[6] Originally conceived as part of the Cohesion policy of the EU, smart specialisation is a place-based strategy based on leveraging the strengths and potential of the regional economy. https://s3platform.jrc.ec.europa.eu
[7] A place-based approach builds on assets and resources available to regions and specific socio-economic challenges in order to identify unique opportunities for development and growth. Rather than a collection of different activities, the emphasis is on strategic coherence: adding value to the regional economy, building on local expertise, products and needs, recognising human capital not only RDI, bridging the innovation divide, building an eco-system with capacity for collaboration between educators, researchers, business, government and civil society. See for example: https://www.vic.gov.au/framework-place-based-approaches/place
and http://whatworksscotland.ac.uk/topics/place-based-approaches/
[8] RRI is "an approach that anticipates and assesses potential implications and societal expectations with regard to research and innovation with the aim to foster the design of inclusive and sustainable research and innovation".
https://ec.europa.eu/programmes/horizon2020/en/h2020-section/responsible-research-innovation

- Debate around the "public good" role of HEIs raises fundamental questions about who benefits and hence who pays. This has implications for public subsidies/funding and tuition/student grants as well as for governance. Deciding what is "public" in higher education has also informed wider discussions around how to balance institutional autonomy with public accountability.[120] Placing achievement of public value at the core of collective decision-making has provided the basis for (re)shaping the relationship or social contract between HEIs and society. The public policy objective is to better align the responsibilities of HEIs with the needs of society; how far that goes can be the source of considerable tension.[121]

3. Extent To Which The Irish Experience And Policy Framework Are Aligned With, And Equipped To Respond To, International Trends And Developments

Over recent decades, Ireland has been utterly transformed. Ireland today is an advanced, developed country, an active member of the European Union, the United Nations and the OECD.[122] The country is affected by many of the same macro-trends as other countries while, as a small open economy, its economic fortunes are significantly dependent upon international trade and influenced by global markets which is also a source of its vulnerabilities.[123] The Covid-19 pandemic is influencing and accelerating many of these trends as well as the rate and assimilation of technological change, changing consumption patterns, new ways of working, involvement in global value networks (value chains), urbanisation and pressure on resources and shifting geo-political power structures.[124] These developments will have a significant influence on the future growth pattern of Irish society and economy, and Irish HEIs into the future.[125]

This section looks at some key national policy and macro-trends likely to influence Irish HEIs over the next decades with respect to both challenges and opportunities.

3.1 Factors Influencing the expansion of Irish HEIs and research

The scale of population growth over recent decades and projected for the future is particularly noteworthy. Total population in the Republic is estimated to rise from almost 5m today to 6.7m in 2051,[126] and 10m across the island of Ireland. Population growth is due primarily to high immigration and high fertility rates.[127] These factors are influencing the current and future shape of the Irish population, the education system, where people live and work, and the labour force.

Due to the size of Ireland's young population, 60% of people in the labour force today will still be eligible workers in 2035.[128] In 2016 the working-age population, 15-64 years, comprised

65.5% of the total population. While the size of this population group will rise under all scenarios by 2051, its relative share of the total population is set to decrease. Correspondingly, the over 65-year-old population is expected to rise from 532,000 in 2011 to approximately 1.6m by 2051 under the most positive scenario. Labour force participation rates for males and females aged 55-69 are expected to rise alongside increases in the mandatory retirement age.[129]

Spatially, despite projected population growth, all regions apart from Dublin and Mid-East are likely to lose population – albeit the 2022 census will provide an updated picture including the effects of the pandemic.[130] Based on current patterns of internal migration, the Greater Dublin region (Dublin and Mid-East) is projected to account for about 42% of the total population and approximately 46.5% of jobs by 2040. Under current trends, spatial development patterns are likely to be characterised by urban focus and sprawl although this will depend upon policy interventions and work and lifestyle interventions.[131] While the future will be shaped by different types of working arrangements, including the shift to hybrid working post-pandemic,[132] most of this will be around cities and larger towns:

> Employers are increasingly likely to locate where there are larger pools of labour…the spatial pattern of employment is [likely to be] mainly focused on the urban hierarchy of cities and large towns.[133]

Approximately 63% of our population currently lives in urbanized areas; this is similar to other developed countries, albeit Ireland remains "below the average in the EU (75%) and the OECD (80%). Irish rurality makes us closer to Eastern Europe and Mediterranean countries than our Northern European neighbours."[134]

Demographic changes have significant implications for education. Under the most positive migration and fertility assumptions, primary school children will decrease by 6.8% between 2016-2031 before rising by 10.9% above 2016 levels by 2051. Secondary students are projected to decline under all scenarios post-2026 to 2051.[135]

At the start of the 20th century, 3,200 students were enrolled at six HEIs on the island of Ireland. In 2022, there are almost 246,000 full- and part-time students enrolled across government-aided institutions, principally universities, technological universities and institutes of technology (IoT), across the Republic of Ireland.[136] Under the highest growth scenario – assuming a transfer rate from secondary to tertiary of ~70% and an increase in international students – full-time student numbers is estimated to peak at 242,392 in 2031 before declining to around 225,000 by 2040. Notably, these assumptions only pertain to full-time students.[137] In addition, these projections do not include the 27,000 students enrolled in the private higher education (PHE) sector,[138] or adults enrolled in non-formal or informal education. When the PHE students are included, the total number of higher education students in 2022 is almost 273,000 which is way above the estimate.

Ireland has one of the highest levels of tertiary education attainment and completion rates in the EU with 55% of 30-34 year-olds surpassing the EU2020 average of 40.3%; Ireland's Europe

2020 national target is 60%.[139] The economic returns for individuals are significant. The likelihood of being employed increases with the level of education attainment; 87% of native born adults, compared with 80% of foreign-born adults, are employed.[140] Tertiary-educated adults earn 81% more than those with an upper secondary education[141] – an outcome which does not "strongly support the human capital hypothesis of overeducation".[142] The overall majority of students on bachelor programmes are typically 19-21 years old.[143]

Despite this significant achievement, PIAAC[9] results show Irish adults perform significantly below the OECD average in both literacy and numeracy.[144] Ireland has one of the lowest levels of basic digital skills with just over half of 16-74 years-olds having basic or above basic digital competencies. While this percentage has risen from 2015, it is still below the EU average.[145] At tertiary level, fewer than half of students (46%) believed that their course prepared them for the digital workplace (NFETL, 2020). Although Ireland ranks sixth in Europe for digitalisation, only 55% of adults have basic or better-than-basic digital skills (EU 58%).[146]

Tertiary participation is lowest for those with lower levels of pre-secondary educational attainment. Participation numbers have increased but almost 17% of adults are designated low-qualified.[147] Disparities are evident also in the fact that Ireland has a comparatively lower working age participation rate than the EU28 or neighbouring UK even prior to the impact of the Covid-19 pandemic and despite recent strong economic and labour market performance.[148]

Strong regional variation is also evident. Internationally, several factors have converged to make income and opportunity inequalities and regional development a growing area of public policy concern with implications for higher education in many countries. Projections suggest 70% of the population in developed countries will live in cities by 2050 creating a growing spatial disconnect between regions which are growing dynamically while others are stagnating or falling behind. Although Ireland has one of the "lowest regional variations across OECD countries with available data,"[149] regional disparity remains an issue with respect to discrepancies in student choice and tertiary participation[150] and at the graduate level.

Of the 2020 graduating year, 40% of honours degree graduates were working in Dublin and 13.5% were employed in Cork and 6.4% in Galway. Of taught post-graduates, 46.5% were working in Dublin and 15% working in Cork and 6.5% in Galway; combined these three counties account for 68% of postgraduate taught employment compared with almost 60% of undergraduate honours degree. For research graduates, 45% were in Dublin, 17.2% in Cork and 7.6% in Galway. Regional disparity is further highlighted by the fact that just 4% of all graduates find employment in the southeast, 3% in the border region and only 2% in the midlands.[151]

Brexit, digitalisation and recovery from the Covid-19 pandemic present significant challenges, and that is before the implications of the Russian invasion of Ukraine are factored in.[152]

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[9] Second Cycle of the Survey of Adult Skills (PIAAC) takes place 2021-2022 in Ireland; results published in 2023.

Among EU member states, 30% of enterprises in Ireland (and Belgium) employ ICT specialists – the highest in the EU.[153] One in three jobs in Ireland are at high risk (a probability greater than 70%) of being disrupted by the adoption of digital technologies; there will be both decline and growth across different sectors and employment types. Sectors most likely to be affected include agriculture, retail, transport and hospitality, and manufacturing. At a regional level, the Dublin region is the least at risk while the Midlands and Border regions are most at risk.[154]

A pattern of people feeling "left behind" is associated with high levels of public and political distrust. Ireland has some similarities with experience elsewhere. Agglomeration effects have elevated Dublin vis-à-vis other cities and towns across the country leading to challenges associated with urban sprawl, housing and congestion with implications for people and families.[155] Levels of public distrust are higher in Ireland than in many other EU countries, despite the very high levels of support during the Covid-19 lock-down.[156] There is also a worrying gap between Irish people's perception of issues and the reality.[157]

Formal life-long learning opportunities are still relatively under-developed although levels of Irish adults participating in learning has increased steadily over the years.[158] At 12.6% of adults, aged 25-64 years participate in learning – and increase from 6.6% in 2009 – this is higher than the EU 27 average of 10.8%[159] but below the EU 2020 target of 15% adult participation in life-long learning (LLL) which includes formal, non-formal and informal.[10] Almost 50% of adult learning takes place through non-formal education but only 9% of 25-64 year-olds participate in some form of formal (mostly tertiary) education. Participation rates for the 25+ age cohort is unsurprisingly greatest amongst those already with a tertiary level qualification (69.6%) compared with only 28% for those with a lower secondary or 46.4% with an upper secondary education. Of non-formal education, only 11.6% was provided by formal educational institutions.[160] These issues also reflect the overall linear structure of the tertiary system, in other words, the primary focus is on direct entrants from upper secondary education into higher education rather than into other forms of tertiary education or on adults.

Just prior to the Covid-19 pandemic, only 2.9% of 2018/2019 university students were counted as ODL students compared with 2.8% in 2014/2015.[161] This probably explains why 70% of teaching staff said they had not taught in a live online environment. Under 50% of the 25,000+ Irish students surveyed indicated they would like digital technologies to be used in their course more than they are now.[162] Four in five students and two-thirds of staff rated the quality of

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[10] Formal Education refers to the regular education and training system where courses are of a predetermined purpose and format, provided in system of schools, colleges, HEIs and other educational institutions. Non-formal Education refers to all organised learning activities outside regular or formal education, including courses or seminars to acquire/improve skills, knowledge and competence aimed at improving job-related knowledge or enhancing skills for social and personal purposes. Informal Learning includes learning that is not organised or structured in terms of purpose, time or instruction (e.g. language skills acquired during a stay abroad, IT skills acquired at work, skills acquired through sports, reading a professional magazine etc.). See DES (2016) *Ireland's National Skills Strategy 2025*, Dublin: Department of Education and Skills, p95

their institution's digital provision as above average, but one in five students and staff said they lacked adequate access.

Ireland is a participant in the global talent pool, albeit the numbers immigrating and emigrating fluctuate depending upon economic circumstances within the country and opportunities abroad. Of 2020 Irish honour degree graduates, 6% were working overseas, a decline of 3% from 2018 which may also reflect the pandemic.[163] Of the over 80,000 people who came to live in Ireland in 2016, 66% were non-Irish of whom 67.4% participated in the labour force. Immigration of non-EEA nationals for the purposes of higher education grew by 45% between 2013 and 2017.[164] Full-time international undergraduate and postgraduate students have continued to increase reaching approximately 25,383 in 2022, accounting for approx. 10% of total students in public HEIs.[165]

The under-representation of women among staff in higher education, particularly at senior levels, remains a striking feature of university life despite the fact that females constitute 53% of all university students.[166] In 2017, only 24% of high-level professor posts were held by women; compared to 51% women lecturers, which is the entry level academic post in the university sector. The first woman appointed as a university president occurred only in 2020.[167] There are now three and, at the time of writing, two of the four TUs have appointed a female president.

Public expenditure on higher education has declined relative to rising student numbers despite an increase in overall spending. Ireland spent 42.1% of its education budget on pre-primary and primary education, one of the highest shares in the EU (EU 34.1%), however, spending on tertiary education at 15.6% still remains below the EU average (16.4%).[168] The greater use of private funds, including the student contribution, has helped moderate the impact. Another modifying factor has been international students and ancillary services. However, what were envisaged as lucrative revenue streams have been badly affected by the pandemic with estimates of a loss in international student fee income and commercial losses of approx. €270m.[169]

University rankings are often used to assess, and compare, Irish performance. However results vary considerably. Individual HEIs regularly perform differently in different rankings and against each other often within the same year because each ranking measures different aspects and has different data sources and methodology.[170] For example, the EU *Innovation Scorecard* names Ireland as a strong innovator having improved by almost 10% between 2012-2019.[171] Individual researchers are named as among the top-1% in the world.[172] In contrast, the three main global university rankings – ARWU, THE and QS – show Irish HEIs slipping beyond the top-100. There is a strong correlation between the performance of HEIs in global rankings and country-level variables, such as population and economic size, R&D expenditure, and English language.[173] The 2020 U21 system ranking takes a wider perspective;

it places Ireland at 19th overall but 39th out of 50 countries for the level of total resources[11], a fall of 23 places since 2013.[174] This corresponds closely to the decline in Ireland's rank for HERD as a percentage of GDP (GNP for Ireland) from 20th out of 36 countries in 2014 to 30th in 2018.[175] It is uncertain what impact Covid-19 will have on the meaningfulness of university rankings given the magnitude of the impact on HEIs internationally;[176] indeed it could be argued that rankings have incentivised HEIs to over-expand their percentage of international students with the dire consequences experienced.[177] There are many arguments against using rankings for any strategic or policy purposes but they are a relativity measure and tell us something about how we are doing vis-à-vis other HEIs and systems.[12]

3.2 Irish Policy Framework

Ireland has a well-developed policy framework which broadly corresponds with the policy direction of other member states of the EU and developed countries within the OECD. Policies reviewed for this paper include the *National Development Plan 2018-2027*,[178] *Project Ireland 2040 Building Ireland's Future*,[179] *Enterprise 2025 Irelands National Enterprise Policy*,[180] *Enterprise 2025 Renewed*,[181] *Future FET – Transforming Learning, Ireland's National Skills Strategy 2025*,[182] *National Strategy for Higher Education to 2030*,[183] *Irish Educated Globally Connected: An International Education Strategy for Ireland (2016-2020)*,[184] *Innovation 2020,*[185] and the *National Plan for Equity of Access to Higher Education 2015-2019*.[186] In addition to these, the Higher Education Futures Taskforce of the Royal Irish Academy has published five papers on the future of higher education in Ireland and Northern Ireland.[187] Of relevance too will be the work of the OECD on behalf of the government on a skills strategy, the report from the EU Commission on funding HE and the work of the Department of FHERIS on research classification.

Recurring themes in many of these policy documents and strategies include the central importance for personal, social and economic development of developing the skills of people living in Ireland and an acknowledgement of the dynamic nature of the skills/employment market and the global competition for talent – even if the term "war for talent" (*Ireland's National Skills Strategy 2025)* risks overstating the case. The NDP refers to the creation in Ireland of "A competitive, innovative and resilient enterprise base (that) is essential to provide the jobs and employment opportunities for people to live and prosper in all regions".

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[11] The indicator for resources includes: Government expenditure on tertiary education institutions as a percentage of GDP, 2016; Total expenditure on tertiary education institutions as a percentage of GDP, 2016; Annual expenditure per student (full-time equivalent) by tertiary education institutions in USD purchasing power parity, 2016; Expenditure in tertiary education institutions for R&D as a percentage of GDP, 2017; Expenditure in tertiary education institutions for R&D per head of population at USD purchasing power parity, 2017.

[12] It is important to note that while attention focuses on the top-100, these HEIs account for only a tiny proportion of total students at a national or international level. Of those listed by the *Academic Ranking of World Universities,* the top-100 represent only 1.4% of total students around the world (2019). In Europe, the top-100 constitutes only 4% of the total 19.8 million EU tertiary students (2017).

The regional dimension of national social and economic development is also strongly to the fore, not surprising given the figures quoted earlier about the current dominance of the Dublin region. The ambitions for closer connectivity between regional development, enterprise, research, and education and training is well articulated in *Project Ireland 2040 Building Ireland's Future*: "Investment in enterprise will focus on boosting regional growth potential, increasing research, development and innovation, and investment in higher education and further education and training. A new €500m Disruptive Technologies Innovation Fund will drive collaboration between the research, education and enterprise sectors."

A robust education and training system is consistently seen as the key enabler of skills development, with a strong focus on a more coherent system of tertiary education where there are clear and open pathways between further education, apprenticeships and higher education and which offer students access at varying times in their lives as career and employment demands dictate.

Acknowledged too is how what is sought from our education system has broadened well beyond subject or discipline knowledge. In the words of *Project Ireland 2040 Building Ireland's Future*: "Knowledge and specialist expertise will continue to be important in the new economy but even more important will be the ability to apply that knowledge and expertise in previously unimagined ways: to be creative and inventive, to solve problems, to work collaboratively and experimentally, to think conceptually and imaginatively".

The ubiquitous influence of digitalisation is widely acknowledged and is well reflected in the statement "Digitisation is pervasive in its impact, driving transformative change across all sectors of the economy and changing the way in which companies do business, engage with customers, reach new markets and innovate." (*Enterprise 2025 Irelands National Enterprise Policy*).

Future FET – Transforming Learning presents a challenge to the HEIs in terms of their status, opportunities and relevance. The strategy lays out an ambitious and impressive agenda for year-round learning options, part-time, access to learning in "bitesize chunks", taking modules and courses that fit with the personal and working commitments of students and that enable them to build credits and credentials over time. A range of blended and online options will be accessible from an eCollege portal, it is proposed, and the strategy also proposes linking to local community and voluntary organisations to ensure that FET can understand and respond to the needs of all within the community.

The equality agenda is also strongly emphasised as in *Project Ireland 2040 Building Ireland's Future*: "Wellbeing, equality and opportunity represent the core, interdependent themes of Project Ireland 2040. Without equality we cannot have wellbeing: without opportunity we cannot have equality".

A clear conclusion from a review of selected policy documents is that policy makers have a good understanding of the global environment in which Ireland operates and the demands

dictated by that environment. It is to be hoped that such understanding is matched by a willingness and capacity to rise to the challenges and opportunities that the environment presents.

4. Implications Of Trends And National Policy For The Future Direction Of Higher Education In Ireland, And The Wider Tertiary Education System

Irish HEIs, and the tertiary education system more broadly, has shown remarkable resilience responding to the reduction in public funding since the Great Recession. They have risen also to the more immediate challenges brought about by the Covid-19 pandemic.[188] But the challenges of the future, arising from international and national trends, will be of a different nature and magnitude for the system and our society. The multidimensional nature of many of the social, economic and civic challenges means that they require multidisciplinary approaches, and higher education institutions are uniquely well placed to lead, develop and apply these, in partnership with others.[189]

The value-added in the future will result from delivering high-quality education to learners from a broader array of social and economic circumstances, at all stages of life, making new discoveries and solving societal challenges, innovating more ideas and being a thought-leader, and playing an effective and responsive role in our communities and in a more complex and competitive global economy. The traditional form of higher education has remained fairly stable for decades, but the future is a different place.

Some of the key messages and challenges for Irish HEIs arising from the review of national and international trends and developments are set out below.

4.1 The international higher education landscape is increasingly competitive and open to being shaped by geo-political factors and other disruptive events

Ireland is strongly internationalised and a strong proponent of multilateralism. It is an open, interconnected and consequently interdependent society and economy. Our citizens are active around the world, playing prominent roles in all walks of life. Irish HEIs are equally internationalised – members of university networks, student, academic and professional mobility programmes, research collaborations, businesses and cultural activities. Graduates, whether they remain in Ireland or travel, work or live abroad, are global citizens. Being part of the European Union is vital but it is no longer sufficient for success.

The international landscape is much more competitive and multipolar. HEIs are highly collaborative but they and their countries are also simultaneously competitors. Many more HEIs are now active and successful players more than ever before. Some of them have considerably more public and private resources. The changing geography of the global talent

pool is raising the competitive stakes in terms of recruiting, retaining and attracting talent as well as opportunities for our graduates. The balkanization of the global economy into rival trading blocs, alongside protectionist measures, will impact on international students but more broadly on education and research collaborations creating volatility and difficulty for Ireland and Irish HEIs in planning for the future and managing risk.

Quality will be an even sharper driver and differentiator in the future. Global rankings are an imperfect measure but they have succeeded in showing us that international comparisons of university performance and quality have become useful measures of assurance for society, students, employers and others. At the global level, they are an indicator of national competitiveness.

Building on Ireland's international standing, we need to sharpen our collective approach to compete successfully. A strategy based on a more joined-up system is necessary rather than individual institutional or departmental and agency strategies that lack international heft and effectively compete with each other at considerable expense.

4.2 Steering the Higher Education System

The Higher Education Authority Bill 2022 contains important provisions for the higher education institutions. It is likely the Bill will be enacted by year's end with relatively little amendment as there is no significant parliamentary opposition to the measures. This may be due in part to the fact that the Bill, to a substantial degree, does no more than place on a statutory basis what the HEA has been doing on an administrative basis for some years. In the current legal and administrative environment exercising significant functions without legal authority is a precarious endeavour for a regulatory body, and has proven to be so for the HEA.

The objects of the Bill broadly cover what the HEA already does, but calls out specifically areas such as assessing institutional performance and the needs of students being the primary consideration. Equally, the functions set out in section 9 do little more than give statutory backing to functions that the HEA has long exercised. That said, it is noteworthy that the role of the HEA in planning the overall higher education research system is specifically provided for. This has the potential to provide for a coherent and co-ordinated national policy for the conduct of research in HEIs – a much needed initiative to coordinate the work of the HEA, IRC, SFI, HRB and others.

The Bill goes on to provide a statutory basis for the access plan, the provision of advice to the Minister, the conduct of research and the collection and sharing of data.

In addition to copper-fastening current HEA and Ministerial roles, the Bill contains provisions which have important implications for policy development, steering the system, governance and for the development and regulation of private higher education (see 4.3 for PHE).

- *Policy and steering*

The requirement on the Minister to set out a strategy for further and higher education (s33) at least every 10 years should ensure on-going broad policy debate and replacing the current more ad hoc and reactive approach to policy and strategy development in Irish higher education. It is an extraordinary fact that the *National Strategy for Higher Education to 2030*, published in 2011, is the only formal and comprehensive strategy for the sector since the foundation of the State – and of course there has been no further such strategy in the decade since. With this paper BH Associates hopes to support and encourage wider and deeper reflection and debate about the policy direction of Irish higher education.

- *Governance*

Through the legislation, it is proposed to put in place what is termed "a co-regulation model of governance". This model was outlined in a Department of Education Consultation Report published in July 2019 and is described as providing

> that the HEI has primary responsibility for governance within an overall performance and regulatory framework which includes a clear accountability and reporting requirement to the HEA. The HEA has an oversight role to ensure HEI compliance with the performance and regulatory framework and only intervenes if there is non-compliance with this framework.

On the face of it, this statement reflects a long-standing approach to institutional autonomy matched with accountability in Irish higher education. It is when one reviews the provisions of the Bill which set out when the HEA "intervenes" that concerns about autonomy and governance arise. For the first time since it was established, the HEA has wide ranging powers to set conditions to its funding and can require that those conditions be adhered to. If not, the CEO may issue directives to the governing body of a HEI to take such actions as are considered appropriate. If these are not complied with the HEA can take further "remedial" actions set out in some detail in section 42. Part 8 of the Bill, providing for the conduct of a review of a HEI by a person appointed by the CEO of the HEA are, potentially, even more intrusive on autonomy, albeit surrounded with safeguards and appeal processes. The provisions relate to "the governance of a designated institution of higher education or the performance by such an institution of its functions or compliance by it with its obligations including, but not limited to, compliance with any guidelines, codes or policies" – in effect the totality of a HEIs activities.

Combined these provisions will greatly increase the powers of the HEA and the Minister to intervene to direct the internal affairs of an institution. As such, they can be seen as a logical conclusion of the "scandals" real and manufactured aired at the Committee of Public Accounts in recent years. In themselves, they present no immediate threat to autonomy and appear proportionate in the context of protecting public funding, the reputation of the higher education sector and the broader public interest. However, they carry a risk that they may be overused. On the other hand, the Minister/HEA have long had some similar powers in

respect of institutes of technology with no obvious evidence of their misuse. Perhaps the sector can rest easy!

4.3 Ireland is privileged by student demand but this is forestalling closer scrutiny of demographic and learner trends

As the economy and labour market evolves in response to global and technological changes, society and individuals across Ireland will have emergent and different education and training needs. In the future, demand will increasingly come from currently under-served sections of society and those who are first-in-family. In addition to school leavers, demand will also come from mature and life-long learners, people requiring new/additional skills and knowledge over their lifetime, and increasing internationalisation.[190] At the same time, global competitive pressures will require that educational provision continues to evolve so that Ireland can remain a dynamic producer of new knowledge, with graduates who are innovation savvy and capable of living and working successfully into the next century.

These trends point to the necessity of thinking much more imaginatively about the role, structure and organisation of higher education. Demographic growth, which has led to increasing participation amongst traditional 18-21-year olds, has created a linear educational structure whereby students' progress from primary to secondary to tertiary and then into work. Arguably, the steady growth of school leavers has provided Irish HEIs with a ready supply of students, allowing them to ignore changing societal needs.

But the future will be different – indeed in many respects the future has already arrived. To help stave off a demographic ageing crisis alongside a skilled labour shortage in the aftermath of the pandemic – challenges being experienced also by other European societies,"[191] – changes that go far beyond Springboard initiatives are required.

Demand will come from younger and older workers already in employment seeking to re-enter education and training in order to change direction. Reskilling, upskilling and repurposing qualifications will coincide with concerted efforts to help overcome generational inequalities and disadvantage according to socio-economic, race, ethnicity, regional and digital-divide factors. And, as people live actively for longer, HEIs will need to genuinely embed a lifelong learning approach and respond to on-going requirements for education and training as the norm.

Increasing participation is not the same as widening participation. Yet, despite years of initiatives the challenge of unequal access to educational opportunities remains unresolved. The aim is to reach out to people and communities for whom education beyond second level, or indeed compulsory school attendance, is seen as neither culturally nor practically viable and those who feel deeply alienated from society.

As the learner population changes, a more coordinated but flexible approach to educational opportunities and progression, to enable people to come in and out of the system must be

adopted. The objective of raising higher education attainment will reflect changing societal and labour market needs as well as different learner needs, interests and personal circumstances. But as demand continues to rise we must also recognise that the future will bring about many alternative tertiary options over the next decades.[192]

4.4 Time to rethink the model of education provision for "high participation societies"

Near universal participation in tertiary education has been a huge achievement for Ireland. The most visible form of this expansion is the increase in the number of students and institutions of higher education alongside a maturing further education sector.[193] Yet, despite this expansion, the model of education provision has remained relatively unchanged as if it was still a system catering to a small elite. Digitalisation and the move to hybrid learning – discussed below – is only one aspect of the type of change required. But, much more radical thinking is required with regard to how we design, organise, deliver and assess higher education and its relationship to other forms of tertiary education and training.

For example, educational policy and the structure of education programmes are based on full-time study. Institutions are effectively penalised if they fail to produce sufficient graduates who graduate within a set-time frame, and funding for part-time students can be difficult to find. We measure outcomes narrowly in terms of graduates working in fields directly related to the course of study. And too much attention is given to staff-student ratios which reflect a romantic idea of small groups of class-room based learners – whereas mass participation higher education is eroding this model.

While teaching and learning is no longer chalk and talk, Irish students still embark on a set programme of learning with designated entry and exit points. And, the academic year continues to run primarily from September to May. But this leaves campuses relatively quiet the rest of the year, and often Friday-Sunday during term time. There is no educational reason for these practices and it is an inefficient use of expensive infrastructure and human resources.

Changes in the structure of the academic year to provide year-round provision for all ages could facilitate learners who wish to adjust their study to fit in with changing life circumstances and/or to reduce the opportunity cost of education through earlier graduation and to widen opportunities for other learners, both domestic and international, to participate. The introduction of a third/summer semester would be an easy win.

There is often a tetchiness about associating university education with the world of work but the split between academic and vocational is increasingly less relevant. Boundaries between the workplace or community as a learning site and HEIs are becoming more porous and this should be accelerated. Work-based/work-informed learning, competency-based education (CBE), new forms of apprenticeship, innovative modes of delivery and assessment, learner and career pathways, shorter and different types of courses/programmes and new forms of

modularised and micro-credential are becoming increasingly attractive to traditional and non-traditional students.

In a world gone global, the Bologna Process and the formation of the European Education Area (EEA)[194] (incorporating the EHEA and ERA) provide the basis for a coherent educational roadmap for students and other stakeholders. Some of the objectives around mobility and credit transfer have yet to be fully realised, but Ireland can learn from this experience. Guided and Navigable Learning Pathways could facilitate a more diverse student cohort helping learners map out educationally coherent pathways between, or within, different institutions[13] and onwards to a chosen career. Credit transfer systems[195] and digital credentialing can facilitate mobility and allow learners to accumulate credits over time according to their circumstances. It should incorporate non-formal and informal learning. We could use this experience to develop a coherent and genuinely integrated educational experience within a quality-assured single framework to make us internationally competitive. Ireland should take guidance from the above mentioned new EU initiatives which promote more flexible and transnational cooperative arrangements.

We should also be looking at the curriculum development process itself. At a guestimate, the timeline from ideation to (re)design, internal quality assurance, student entry and progression to graduation and into the labour force, and student feedback could take approximately 7-8 years. By this time the economy and job opportunities will have changed, in some cases very dramatically – as we are currently witnessing. The current process is no longer fit for purpose given the accelerated pace of change in the labour market.

As we rethink programmes and institutional practices it is clear that greater commitment to flexibility and responsiveness is required. Students should be empowered to tailor their entry, exit, assessment and qualifications to their personally determined needs rather than being required to fit a standardised model. These developments will facilitate a shift from traditional time-served to just-in-time education with implications for the organisation of the institutions and academic practices. There are also significant implications for rethinking pedagogy, moving beyond the more incremental change we are familiar with through the various teaching and learning initiatives but much more radical change which befits a high-participation system.

Irish HEIs have been too slow to respond to these changes, doing so only when prompted by government initiatives. But unless they are more pro-active, they risk being overtaken by alternative/corporate certification programmes.

To better reflect the flexible tertiary system we want and require, the funding model for our institutions needs to change to both reflect and drive changed circumstances and objectives. Neither students nor institutions should be punished because they choose to leave a

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[13] Learning pathways should provide a coherent system-level approach which goes far beyond bilateral articulation agreements between higher and further education institutions.

programme early or switch partially through the programme. Instead their time spent should be recognised as valuable with the student able to obtain and carry credits to their next choice whenever and wherever.

4.5 How do we plan for the future if we don't know what we are doing

Good strategic management of the higher education and research system, and its institutions and agencies, relies upon having a reliable and common information system. Without a system for collecting, processing, analysing and reporting on data (qualitative and quantitative) it is extremely difficult to know how well Ireland, and its institutions, are doing against its own objectives and to advocate and plan accordingly. The system should also be open to public scrutiny; this way everyone knows what's happening thus engendering public trust and support.

The HEA oversees the Student Record System (SRS) and produces interactive reports and analysis on student enrolment, performance, completions, and graduate outcomes but has no information on staff or other aspects of higher education, and has begun to publish the *HEA Quarterly Statistics Newsletter*.[196] The performance framework and strategic dialogue process, currently under review, relies primarily on self-reported information using highly variable data definitions. The only HE/national bibliometric data is produced by SFI but that reflects its own disciplinary coverage. HERD measures expenditure and human resources devoted to research work[197] and KTI which captures technology and knowledge transfer.[198] In parallel, there are three separate surveys: a survey of student engagement, a graduate outcomes survey and an employer survey.

Essentially Ireland collects bits of information but it is all held in different systems controlled by different departments and agencies, and the systems don't communicate with each other. This explains heavy reliance on institutional self-reported or survey data. Not only is the approach to research and scholarship narrowly conceived but it is out of step with international discussions around responsible metrics, Altmetrics or developments in open science.[199] There are implications also for how and what scholarship is valued, with knock-on implications for academic careers. Indeed, the absence of meaningful data leaves Ireland and its HEIs vulnerable to the vagaries of university rankings, whose methodologies, data definitions and data are continually criticised.

Discussions have been going on in fora over the years with evidence of some acceleration in recent months. DFHERIS has launched a public consultation with respect to a National Research Classification System,[200] and the IUA is looking at data capacity and metrics. Individual institutions are busy purchasing Elsevier's PURE system.

None of these actions suggest a joined-up strategic approach to critical infrastructure. Indeed, the absence of a comprehensive approach to information and data severely undermines the level of strategic governance appropriate for national or institutional level decision-making and strategic planning – with the capability to track and compare.

The EU acknowledged that having different systems each collecting different pieces of information with none talking to each other does not constitute a good practice.[201] This is why the pledge to establish a European Higher Education Sector Observatory to combine existing "EU data tools and capacities[202] in one single place...." is potentially very significant.[203]

Ireland would do well to draw lessons and inspiration from this decision.

4.6 Ireland is playing catch-up in the digital revolution

The surge to digital platforms and ODL provision which we have just witnessed has been hugely impressive. Irish HEIs have rightly won praise for rapidly changing their educational format from on-campus to on-line. Irish students, as well as their fellow students in other countries, readily accepted and adapted to the emergency nature of the shift to on-line teaching with varying experiences.[204] But an emergency response is not equivalent to high-quality on-line or blended learning.[205]

Open and distance learning is not a replacement for the on-campus experience. Rather, it is its own unique learning culture – one in which students can actively engage and learn in different ways and in ways which would otherwise be unavailable to them. The on-campus experience of students remains an important element of the university experience, especially for younger students, providing them with the opportunities to acquire and practice social skills, develop networks and expose them to different ideas, ideologies and cultures.

As the experience of the Open University and similar institutions demonstrate,[206] there should be no significant quality difference between distance teaching and classroom instruction in achieving student learning outcomes such as self-directed learning and critical thinking.[207] A blended physical and on-line learning environment, underpinned by innovative pedagogical principles, is likely to be attractive to a wider range of learners and meet student expectations and needs. Hybrid teaching is also more inclusive, enabling *all* students to :interact and engage with each other, in real time sometimes, but more often than not asynchronously: individuals and groups of students with their devices on campus, in classrooms and in new learning spaces, together with individuals and groups of students online, at home and in remote study centres."[208] Internal and external quality assurance should ensure quality regardless of format.[209]

Digital transformation is more than teaching and learning. It concerns the entire way in which HEIs use digital technologies. It is much more about the way we work than simply the technologies we use. It refers to the way in which HEIs use technology to innovate, simplify, and improve. It can aid student achievement and enhance the student experience, support the academic endeavour and research as well as strengthen strategic planning and decision-making.[210] As such there are capacity-building and training implications.

Any chance of competing successfully in the 21st century requires a step-change in Ireland's approach to ODL.[211] A systemic and strategic approach will be necessary rather than each institution developing its own approach and competing with each other, and the world. It goes without saying that a sustainable business case is essential. Failure to operate at an internationally competitive level – even for our own students – has implications for Ireland's future attractiveness and sustainability.[212] Achieving high-quality ODL is not however a cheap(er) option nor should quality be sacrificed for efficiency.[213]

4.7 Achieving a well-functioning national research system

The Irish research, science and innovation landscape – with the help of the HEA, SFI, and IRC along with PRTLI and EU funding – has been transformed in the years since the millennium. The research base has expanded significantly with evidence of critical mass as well as pockets of excellence. The underlying ambition of research policy in the State has been towards positioning Ireland's research system as a European, even a global, leader. *Innovation 2020* is unambiguous in declaring its desire to see Ireland as a global innovation leader. Our economic sustainability requires nothing less.

But many key issues remain to be addressed. Building on what we know about international competitiveness in global research, national priorities and regional disparities what should our focus be? What is the best balance between institutional and national strengths? How can research, development and innovation (RDI) help bridge regional disparities? What focus should there be on working with SMEs which account for 99.8% of all enterprise and employ almost 70% of all workers in Ireland?[214]

Covid-19 has had a positive effect on how people view science and scientific discovery but there is a risk that excessive focus on medical and biological science will be at the expense of a more holistic approach to research and innovation. After all, the social sciences, humanities and cultural disciplines are critical to our understanding as to how we are going to live with in the aftermath of this pandemic whilst preparing the next, the changing world of work, climate change and sustainability, and other global challenges. If recent events have taught us anything, it is that societal challenges transcend disciplines, individual research teams and institutions.[215] Some approaches that present themselves include more focus on clustering and challenge-based collaborative centres, efforts to achieve a better balance between social and technological innovation[216] and building a sustainable researcher pipeline to strengthen Ireland's attractiveness to international researchers. We also need to think about the way in which research is assessed. Where and how we invest limited funds and issues of equality, diversity and inclusion of people and disciplines are critical to success. As the HERG report recommends, "a mission-oriented approach can enable a balance between directed research activity on specified needs and researchers responding to the overarching mission, with creative exploratory research that can generate previously unimagined solutions and opportunities."[217]

Significant investment in research infrastructure has been made by individual HEIs and other organisations over the last decades. A genuine commitment to open access and open science, which incorporates the public sector and public libraries, should be a core feature.[14] Facilitating the widest possible access to this research infrastructure is essential to achieve the greatest return on investment and value for money for the country and for the research community in general.

Heretofore, Ireland has had individual agency strategies. But without an integrated national policy and research system Ireland will continue to struggle.

The creation of a government department covering further and higher education, research, innovation and science is especially timely. Bringing together the Higher Education Authority, including the Irish Research Council, and Science Foundation Ireland under one Minister with one budget line can only enhance effectiveness and efficiencies and strengthen higher education based research with clear regard to the broader needs of the sector, the individual institutions and overall national policy. And, because global rankings measure university-based research, this approach could also strengthen our global positioning and competitiveness.

4.8 Being placed-based and globally-competitive

Higher education has a very large role to play in helping build sustainable communities. *Project Ireland 2040: National Development Plan 2018-2027* identifies the importance of education and skills not only for attracting FDI but strengthening Irish SMEs and contributing to social and cultural life throughout the country.[218] Graduates are smart, creative individuals with knowledge and competences, who can lead and catalyse the long-term provision of knowledge and ideas through research and discovery, and are technologically savvy and innovative. There is a huge inter-dependence between economic growth and innovation, and knowledge and skills, the latter of which derive from, and depend upon, people with skills relevant to regional and national economies.[219] Regional sustainability is more than economic impact. HEIs make an enormous contribution to all the social, cultural, intellectual and environmental aspects of society which in turn make a vital contribution to our quality of life and our well-being. They play a key role as civic HEIs, working collaboratively with each other and other educational institutions, businesses and civil society to make their communities more sustainable.[220] Whether it is boosting productivity and trade, supporting educational attainment and skills, tackling inequalities between and within regions or protecting vulnerable people, HEIs play an indispensable role in helping communities overcome the multiple challenges they face.

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[14] See the Scottish Higher Education Digital Library (SHEDL) and Bibsam Sweden: the consortium of University and Research libraries.

The pandemic has illustrated more than at any other time the importance of rebalancing Irish society towards a more harmonious relationship between the local, national and international and the role of Irish HEIs in this process. Understanding the totality of the value and benefits that derives from transnational cooperation forms a key aspect of the EU *Strategy for Universities* and the *Council Recommendation on building bridges for effective European education cooperation*.[221] Unfortunately, Irish policy remains one of seeing international students as "cash cows" with an emphasis on "cost effectiveness and economic impacts".[222] It is perhaps unfair to blame the Indecon report when the terms of reference were focused exclusively on mobility and the income generated.

So, where should Ireland be focusing its internationalisation policy? What are we trying to achieve? No doubt social, cultural and educational exchange is an important objective of transnational cooperation and vital for Ireland's competitiveness. But focusing solely on growing international students as a percentage of total enrolments misses the bigger picture – and arguably left Irish HEIs financially exposed when the pandemic hit. There is lots of jargon about the importance of global citizenship but outbound Irish Erasmus students comprise less than 2% of the total full- and part-time students enrolled across all government-aided HEIs.[223] This reflects international evidence that degree mobility is limited. According to Eurostat, only 1.3m out of a total 17.5m tertiary students in the EU are undertaking their studies in a Member State other than the country where they had completed their secondary education.[224] So how do we ensure that internationalisation is not simply another benefit for an elite sub-set of students, faculty and institutions?

Ireland can begin by embracing the structural and operational issues that can unblock barriers to transnational cooperation by, inter alia, changing quality assurance arrangements to more easily enable the delivery and recognition of joint educational programmes and joint degrees, interdisciplinary modules, embedded mobility opportunities, joint work through challenge-based approaches, etc.

Fundamentally, internationalisation needs to move from the periphery to becoming a core activity of higher education. If the rise of neo-nationalism, the intensification of geo-political tensions and the pandemic have taught us anything it is that the benefits of the global and intercultural must become genuinely embedded holistically across the whole institution as a learning outcome for all.[225] We should stimulate global learning for all by paying more attention to the internationalization of the curriculum, embracing COIL (collaborative on-line learning), internationalizing teacher and foreign language education, and integrating internationalization initiatives with other efforts to reach the Sustainable Development Goals (SDGs).[226]

Too often collaboration at the local and regional level is seen as less significant or noteworthy than collaboration internationally. Too often HEIs are discouraged from focusing on local impact, based on out-dated perceptions of status hierarchy which places global at the apex and local at the bottom. Focussing on the needs of place can be a significant facet of university strategic positioning as evidenced by many successful applications for European University

recognition.[227] Because pronouncements in mission statements and strategy documents are not enough, the role of tertiary institutions as anchor institutions in their regions, and the societal impact and benefit that derives, are increasingly used as measures of quality and excellence as well as a differentiator in the competitive HE landscape.[228] The appointment and promotion system, including the indicators used to evaluate university performance and research, should be revised to fully recognise the value and diversity of academic contribution to place across all disciplines.

4.9 Strengthening the steering core and academic heartland

The greatest asset of an HEI is the quality of its people. This affects the quality of its education, its graduates, its research and above all its contribution to society. While much discussion about challenges focus on senior leadership, we tend to ignore that some of the heaviest lifting is undertaken by heads of school or department or similar posts across academic and research management. They are responsible, at a very practical day-to-day level, for dealing with the pressures of a mass and diverse system, on-going challenges associated with resources and resourcing and emergency responses to Covid-19. They are also the pipeline for the future.

Administrative, technical, maintenance and professional staff are too frequently overlooked – sometimes by other colleagues. Yet, these are the people who ensure the university works as everyone wants and expects it to. They are core to the ability of an HEI to successfully achieve its mission and ambitions. Their responsibilities cross every aspect of corporate, academic, research, engagement, teaching and learning, IT systems, library and student services, sports and cultural activities, facilities and so on. As such, they should be seen as co-equal partners in achieving the academic mission of the institutions.

Neither would the university exist without its academics and researchers – who are the "academic heartland".[229] Changes in the student cohort and the way in which education provision is organised is impacting on the academic profession. This is the subject of on-going commentary and research covering changes to career opportunities, expectations and contracts, matters of gender bias and insufficient diversity, and changes to the teaching and learning environment.

Ironically, we probably spend more time talking about HEIs producing human capital but too little time thinking about the human capital of our HEIs. HEIs have large multi-million budgets which necessitate a high level of professionalism appropriate for any modern global organisation. As the stakes rise in higher education and research, and resources are more constrained, the capacity of the university to meet challenges, to be innovative and entrepreneurial, and to stay ahead of the curve becomes more important than ever. Ireland would do well to take stock of reforms proposed by Dutch public knowledge institutions and funders of research to recognise "everyone's talents".[230] Succession and renewal are vital if our HEIs are to remain a key driver of Ireland's future.

4.10   It is time to recognise the contribution of private higher education

Over recent decades, significant growth has occurred in private higher education (PHE) internationally. PHE has expanded to meet and absorb demand in response to demographic pressures and on-going massification, continuing transition to knowledge-intensive economies and changes to the labour market, the expansion in lifelong learning, as well as the contraction of public budgets.

Ireland, like the rest of Western Europe, has a predominantly publicly funded higher education system. In contrast to Europe, private higher education elsewhere plays a significant role in educational provision. For example, Australia has a large private sector in both higher and further education. The sector was promoted and enabled to grow rapidly to respond to the positioning of education to be one of Australia's largest export sectors. There is now a single quality assurance framework for public and private providers. Japan also has for a long time had a large state-regulated private sector, alongside a smaller and elite public university sector. Chile has one of the largest market-based private system of higher education systems in the world.[231]

Although still a small sub-sector here, PHE has been a growing component of provision in Ireland. It constitutes a very diverse group, providing specialist education in public administration and business, medicine, and other health-related professions, teaching and ICT, in addition to a wide-range of undergraduate and post-graduate programmes. Estimates suggest that PHE providers enroll about 10% of HE students in Ireland. PHE providers have been included in specified skills/re-training programmes as a response to the 2008 economic crisis. They have participated in the Labour Market Activation Fund, 2010, and subsequently in the Springboard programmes since 2011 where PHE has provided about 50% of all places. The PHE sector is also active in international recruitment and participates in government-led missions abroad.

The *National Strategy for Higher Education to 2030* (2011) discusses the role of private higher education in terms of providing specialist programmes, meeting unmet future demand as well as being part of Ireland's internationalisation strategy. It also speaks of the possible expansion of the PHE sector.

> In respect of private institutions, it will be open to the HEA to commission teaching and learning activity on an economic cost basis to meet identified priorities within any regional cluster. Independent providers, including those in the 'for-profit' sector will be free to tender for provision on these identified needs basis. Any such providers should be subject to the new national quality assurance processes.
>
> It is likely that, over the period of this strategy, this sector will grow, particularly with the possible entry of large international higher education providers into the Irish market. This growth has the potential to add significantly to the overall capacity of the system to meet growing demand for higher education.

This sector also offers an opportunity to periodically reassess the value for money and effectiveness of public providers; where private providers can offer better value for money, the State should consider using them to deliver on its objectives. It would be necessary, however, to safeguard against any negative impact on quality.

While there are legal restrictions on the use of the 'university' title by education providers in Ireland, the regulatory framework governing entry to the Irish market by higher education providers will need development in order to ensure that overall quality is maintained (p. 108).[232]

Investing in Ambition. A Strategy for Funding Higher Education (2016) was of the view that

… private institutions can and should make up a greater share of the overall system. The *National Strategy for Higher Education to 2030* envisaged a greater role for private institutions in the future, specifically in terms of bidding for state-funded student places in areas of identified need. This did happen through the Springboard programme and ICT Conversion Programmes. The sector has demonstrated its willingness and capacity to respond to national needs, and it can play a vital role in meeting additional demand in coming years through programmes of this nature. The sector has also demonstrated its commitment to quality and high standards—student outcomes under the Springboard programme were strong and the sector works constructively with QQI to ensure a strong quality regulatory framework is in place (p. 48).[233]

The report also suggests that when deliberating on funding for part-time students, the extension of financial support to students in private institutions should also be considered (p.46).

More recently, *Irish Educated. Globally Connected. An International Education Strategy for Ireland, 2016-2020* has spoken of the need for "internationally-oriented globally competitive higher education institutions" without distinguishing between public and PHE.

The Higher Education Authority Bill 2022 has important implications for PHE in the provisions relating to designated institutions of higher education. These provisions open the way for PHE institutions to join the regulatory and reporting system for Irish higher education. Although designated HE status confers no entitlement to funding, the Bill provides at section 37 powers to the HEA to fund a wider group of institutions, whether or not designated. The clear advantage of being a designated HEI for PHE institutions is the status it confers and the potential for marketing nationally and internationally. The downside may be the regulatory regime that designation brings with it.

The Bill's proposals mark a significant advance in creating a more coherent and co-ordinated higher education system encompassing private and public providers. However, what is still lacking is an overarching policy for higher education where the role and contribution of PHE to national objectives would be placed in a strategic context with the role and contribution of

the public HEIs. Crucially, absent also is any proposal to include eligible students in PHE institutions in the SUSI and other student support programmes. This is an issue of fairness and equity that must be dealt with if PHE is to play its fullest role in meeting our higher education and training needs.

4.11 Further Education and Training (FET)

In the next section we comment on the development of a co-ordinated tertiary education system. Further education and training (FET) is a core part of that and has made a considerable contribution to Irish society and economy over many decades. It has been the basis of rewarding careers for thousands of its graduates, and continues to be so. And yet in our rush to increase the numbers of people in higher education have we given sufficient attention to those who do not attend higher education.[234] One thing is clear, we cannot allow a survival-of-the-fittest approach to dominate policy.

In the post compulsory education and training system and in society generally, FET suffers from a lower status than higher education, as do the careers it leads to. That this needs not be so is well demonstrated by the experience in other European countries, with Germany an often quoted example. The reasons lie in poor communication and lack of appreciation of the careers that FET offers, but above all prejudice in Irish society. The OECD has noted: "Enrolment in FET programmes among both youth and adults was below OECD averages and the sector suffered from a lack of parity of esteem."[235]

If we are to provide for the wide range of skills that our society and economy needs, FET must be a central part of our education and training system. The SOLAS strategy, *Future FET: Transforming Learning: The National Further Education and Training Strategy,* sets out a number of areas of focus to bring FET centre stage in the education and training system. They include -

- Simplify FET by offering clear pathways into FET, within FET and from FET.

- Schools could offer modules and tasters of vocational courses to second-level students, in order to overcome the lack of exposure to FET.

- Offering Level 5 and Level 6 modules as an integrated part of the senior cycle should be investigated as part of the NCCA senior cycle review.

- The potential for apprenticeship taster offerings as part of Transition Year.

- The development of support resources to help teachers explain future opportunities to students, with the deployment of FET and apprenticeship ambassadors to build interest in vocational pathways.

- Consider how FET works in the context of the CAO as the major focal point for each cohort of school leavers.

It is important that policy and funding practices support the development of a comprehensive and well-co-ordinated further and higher education system. The creation of the Department of Further and Higher Education, Research, Innovation and Science is a positive step. So too is the policy focus on creating pathways from FET to HE to ensure that there are few, if any, cul-de-sacs in the system. However, there is a risk that FET is presented as a route to higher education rather than an education and training destination in itself, further strengthening existing prejudices.

Overall, Irish society demonstrates a strong (maybe insatiable) appetite for higher education. If we are to redirect the education and training system into a more balanced FE/HE system, radical approaches may be necessary. Consideration could be given to limiting the number of places in HEIs, or limiting the number of publicly funded places, in order to cool demand for HE and re-direct students towards FET. Another approach would see some, or all, the years of study in HE carrying fees while access to FET is free. No course of action is free of risk or controversy. However, present policies will bring about the re-balancing needed only after a prolonged period, if at all. Can we afford to wait?

4.12   Ensuring a more co-ordinated tertiary system

Ireland has expanded its higher education system to include universities, institutes of technology and technological universities. This is facilitating widespread access across a wider range of institutions and educational opportunities. In recent years consolidation and reconfiguration of further education, under the leadership of SOLAS, has created a vibrant tertiary system. As a result of these developments, the character of tertiary education and society and student's expectations have changed.

There is increasing focus on ensuring that the tertiary system creates the level of connectivity and complementarity between further and higher education and research required to meet the needs of the 21st century. The aim is to broaden the range of educational opportunities which facilitate greater flexibility to enable learners to progress through a more diverse set of tertiary education opportunities and experiences, best suited to their stage of development, interest and life-circumstances. There is great value in creating and maintaining greater porosity between further and higher education and greater coherence between research policy and structures.

As already noted, private higher education providers are something of a Cinderella in our system, by times tolerated or ignored but rarely positioned as a key component of a healthy system. As the private higher education sector takes on a more active role, it is timely to consider its contribution, role and responsibilities within the Irish tertiary education landscape.[236]

Thinking in terms of the tertiary system enables us to put the learner at the centre rather than the institutions. It focuses on how learners can access different learning experiences

and institutions to meet their circumstances over time. There are significant implications for pedagogy, assessment and teaching and learning.

We should seek a more effective way of recognising both public and private benefits and translating that into a fair(er) distribution of costs given other demands from other equally important areas of Irish society.

A strength of our HEIs has been their individual comprehensiveness. Among the benefits has been the fact that a high proportion of students can study in their local institution. However, it is increasingly difficult (and expensive) for each institution to be comprehensively excellent. Greater specialisation and the removal of unnecessary duplication of programmes offers the opportunity for better use of resources, improvement in quality and strengthening competitiveness.

It should be possible to identify a more efficient and effective use of resources to obviate the dangers of a "survival-of-the-fittest" approach between HEIs and between higher and further education. We should get a better-bang-for-our-buck through more, unified structures and mechanisms, especially with regard to highly competitive areas such as ODL, digital libraries and research as well as back-office functions. It should be possible to bring our institutions into a much more coherent system providing for these functions as well as addressing unnecessary duplication of programmes. As an example of what is possible, we could look to the State University of New York (SUNY) with its 62 universities, community colleges and research institutes.[237]

The challenge is to maximise our collective capacity beyond our individual capacities. Pleas for more funding, less regulation and more respect for autonomy are likely to get a far better hearing from the government and the public if they are combined with a demonstrated willingness on the part of the HEIs and other colleges to see themselves as central players in finding solutions to the fundamental challenges they now face.

4.13   But what about funding the system?

Funding models beget the system and if the future reality is different, then the funding model needs to change accordingly. Currently, it is too focused on traditional 18-year-olds pursuing a programme, beginning to end, and fails to recognise the greater flexibility required for different types of learners pursuing different types of programmes over their lifetime.[238] And, despite increases for targeted initiatives, public expenditure on higher education remains low in spite of growing number of students; "cuts to core third-level funding during the economic crisis of 2008 have never been reversed, leading to a growing reliance on attracting international students".[239]

The *National Plan for Equity of Access to Higher Education 2015-2019* states: "As a country we have everything to gain and nothing to lose by increasing levels of participation in higher education among all Irish citizens."[240] Policy choices are one factor influencing how much we

as a country spend and where and how funds are raised. But other factors also affect how we best use the resources we have in order to achieve the outcomes we want.[241]

The report of the *Review of the Allocation Model for Funding Higher Education Institutions* by the Independent Expert Panel of the HEA published in December 2017 makes an important contribution to the application and use of existing funding and more effective funding models. It states that the panel wished the report to serve as a lever for significant change in key areas that have a lasting impact on the nature of the system, the way it supports students and generates the outcomes needed for Ireland to flourish as a society and an economy. If fully implemented, the panel believed the review proposals offered a future vision to embed lifelong learning; recognise and respond to the demographic challenges and changing patterns of student demand; reinforce the critical importance of access to higher education in driving social and economic progress; acknowledge the importance of research and innovation in underpinning excellence in higher education; ensure that funding can be channelled effectively to support skills development and reward institutions for delivering outcomes and impact. These are entirely laudable objectives. The level of funding for higher education was outside the panel's terms of reference, but having analysed system finances, operations, performance and outcomes, it was their clear view that Ireland cannot continue to increase student numbers without a commensurate increase in investment.

Given the many challenges known and unknown and hence financial pressures on the public purse, it is hardly a time to consider eliminating the student contribution to fees as some have proposed. While there are policy reasons for doing so, there is a very poor prospect of the government being in a position anytime soon to make up for the loss, never mind provide the several hundred million euros an underfunded system already needs. It has also been the experience of higher education that in time of financial crisis HEIs are a prime target for funding cuts. The current student contribution provides some protection.

Cognisant of the exercise currently being undertaken by DPER with respect to the *Investing in National Ambition: A Strategy for Funding Higher Education*,[242] isn't it time to think outside the box?

An option which could have provided (and perhaps still can) a solution is an income contingent loan scheme. The student loan issue has been mishandled from the start with a lack of political, and hence public, understanding that there are different models. The term has been used generically thus conflating the US mortgage-type model with the income-contingent loan (ICL) model. Differences between different ICL models have also been ignored; thus, the UK and Australia models have been confused. It is difficult to see how this issue can now be rectified politically given the level of misinformation, opportunism, misunderstanding and misrepresentation to the public of what a well-structured loan scheme could achieve. This well has probably been poisoned politically but we should not conclude, yet, that such a scheme cannot be designed and implemented with a well-developed public information campaign at its heart.

Another option worth considering is to develop a funding approach which would target specific learner cohorts, for example students accessing courses at Levels 5-7 NFQ. This would help widen access and broaden tertiary education options, and also direct funding to students most in need.

5. Propositions For The Future Development Of The Policy Framework For Higher Education With A Particular Focus On The Development Of An Integrated And Cohesive System

In a time of great societal challenges, higher education should be front and centre in supporting society to meet them. But such challenges also call for the adoption of effective national policy and strategic choices to help shape the direction of the sector for the future.[243]

Drawing from the earlier elements of this paper, this section concludes with **21 Propositions** – grouped under four headings – that could form the basis for strengthening the quality, competitiveness and sustainability of Irish higher education and research.

Each proposition is like an onion, capable of being unravelled and dissected. They are presented here to challenge current thinking and provoke debate and discussion; they are not presented as ready-made recommendations. Nor, is this a comprehensive list. [15]

There are three dominant messages.

First, a system approach can deliver the greatest collective impact and economies of scale in order to provide the best opportunities and benefits for students and Irish society. Second, change is coming. Ireland is either in the vanguard of change or it will be left behind. Third, we need to refocus on how we view higher education and the wider tertiary education system by looking at it through an equity and inclusiveness lens. The present system – to a very great extent – perpetuates past privilege. Having a shared inclusive vision of the way forward is essential.

DEVELOPING A CO-ORDINATED, COLLABORATIVE HIGHER EDUCATION, RESEARCH AND INNOVATION SYSTEM

1. The creation of the Department of Further and Higher Education, Research, Innovation and Science provides the opportunity to develop an **Integrated and Collaborative University-Based Research System** firmly anchored in the HEIs and fully co-ordinated with the teaching and learning mission and overall national policy. It should embrace all

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[15] See RIA *Higher Education Futures*, aforementioned.

disciplines, encourage social and technological innovation, and be place-based and globally competitive.

2. **Regional Knowledge and Innovation Clusters** should form the primary policy instrument for delivering greater co-ordination and collaboration between HEIs and other education providers, business and civic society. As a pathway to competitiveness, they leverage opportunities of place-based strategies and maximising capacity and capability.

3. **Academic and Research Capacity should be pooled** by developing national doctoral programmes which both encourage and build upon institutional specialisations and maximise Ireland's international attractiveness to students, professionals and business**.**

4. An **Internationalisation Strategy** that is comprehensive and inclusive should be developed that widens out opportunities for joint degrees and other international initiatives, and brands and promotes Irish education collectively on a unified national basis.

5. The contribution of **Private Higher Education** within the tertiary education system should be recognised and broadened through formal contractual arrangements between government and the institutions for the provision of education and training. Students in PHE institutions should be included in SUSI and other student support programmes.

6. Require HEIs to **Develop and Implement Professional Development Plans,** including succession planning for their staff having due regard to the requirement that. recruitment and promotion systems more appropriately reflect equality on grounds of gender, ethnicity and race.

7. **Reform Staff Contractual Arrangements** to reflect changes in the academic environment, academic provision and the organisation of academic programming including movement to on-line and blended teaching and learning.

WIDENING EDUCATIONAL OPPORTUNITIES AND IMPROVING OUTCOMES

8. Sweeping reform of the **Academic Calendar and Programme Provision** should be considered to provide:

    - More flexible education and training opportunities especially for part-time students, delivering on the years-long commitment to lifelong learning which has only very partially been met;

    - Optional expedited completion of programmes and graduation;

    - More focus on work-based/work-informed learning, employability and work placements, competency-based education (CBE) and the new forms of apprenticeship;

- Shorter courses/programmes and new forms of modularised and micro-credential programmes;

- Year-round use of education and training infrastructure with greater porosity between full- and part-time provision.

9.   In order to balance demand for further and higher education place a **Cap on the Number of Students Entering Higher Education.** This should be combined with a much enhanced and well-resourced career advice service for second-level students and adults interested in returning to education/training to ensure more informed choices about the options for tertiary education and overcome biases that exist in society. The SOLAS proposals outlined in summary in paragraph 4.11 are also relevant.

10.   A **National Credit Accumulation and Transfer System** would create opportunities for learners of all ages and ability to progress through tertiary education by building credits and credentials over time, according to their abilities and circumstances, and carrying them from one programme, or one institution, or form of education and training, to another. This should facilitate students transferring between programmes and/or institutions if circumstances or interests change and bring a new dynamic to the concept of lifelong learning.

11.   **Guided and Navigable Learning Pathways** can help facilitate learner progression through tertiary institutions and programmes into work and back again. It is complementary to a National Credit Accumulation and Transfer System. Pathways can provide clear guidance for learners of all ages and abilities in line with the NFQ.

12.   In addition to measures to support greater equity of access and participation from students from a wider socio-economic background, the process of **Assessment at Second Level Should Be Reformed** to reduce the singular focus on a high stakes, high pressure leaving certificate which in many respects perpetuates social and economic privilege. It should be replaced with more innovative approaches to assessment that capture the wide range of student learning and achievement.

13.   Establish a **National Open and Distance Learning** (**ODL**) **Platform,** providing an internationally competitive education and training system, while avoiding the costs and other inefficiencies of institution specific solutions;

STEERING AND FUNDING THE SYSTEM

14.   An integrated further and higher education intermediary body to form a **Tertiary Education and Research Authority (TERA),** providing the basis for a more coordinated approach to education and training, research and innovation. The TERA would play a more significant role as the over-arching governance and performance structure for the tertiary system.

15. **Change the Funding Model for Tertiary Education** to support the learners and system we want**:**

- To encourage greater and wider access into, and through, the tertiary system focus public funding on NFQ Levels 5-7. Students would be eligible for two years of tuition under this proposal;

- To better reflect and encourage flexibility, shift funding away from the number of students enrolled;

- LLL vouchers should provide open pathways for learners to come in and out of the tertiary system;

- To encourage and reward "system-ness" and regional impact and benefit, funding should be directed to/through regional clusters. This requires formal governance structures;

16. Reform the **System Performance Framework,** in terms of what it is trying to achieve, the processes which underpin it and the evaluation criteria and the connection to funding to ensure that it better balances regional, national and global ambitions and undoes the extent to which the exercise has become a bureaucratic exercise, the value of which is being increasingly questioned.

17. Use the reformed performance framework to create a more fully collaborative higher education system which would encourage greater **Programme Specialisation** as a way to reduce inefficient programme duplication, strengthen institutional differentiation and improve efficiency, quality and competitiveness.

DEVELOPING A COMPREHENSIVE INFORMATION INFRASTRUCTURE

18. **A National Digital Platform** would provide a shared digital infrastructure promoting and supporting open access solutions and scholarly and other resources, data and analytics, training, advice and other services for further and higher education and research, libraries and museums (HE, government and public), other public services and society at large. The aim is to ensure Ireland is among the most digitally advanced countries in the world.

19. Develop and resource a **National Shared Services Infrastructure**, providing for areas such as libraries, accommodation, sports facilities, personnel and other back-office services.

20. Expand work on a **Tertiary Education Database** to provide a comprehensive approach to information and data across all dimensions of tertiary education, including the entire cohort of students, graduates and staff, and learning experiences. The aim is to significantly strengthen our collective and individual institutional capacity and capabilities for strategic planning and analytics, student support and outcomes, and benchmarking. This should link with the Research Information Management System, mentioned below.

21.   A **National Research Information Management System** based on FAIR (findable, accessible, interoperable, reusable) principles – to store, manage and exchange contextual metadata and enable exchange between institutional research information systems and repositories. It should focus on quality outcomes, impact and benefit for knowledge and for society across all disciplines and the entire knowledge-innovation cycle in order to enable appropriate levels of strategic decision-making and analysis.

6. Abbreviations & Glossary

ARWU - *Academic Ranking of World HEIs*

DPER – Department of Public Expenditure and Reform

ESG – European Standards and Guidelines

FE – Further education

HE – Higher education

HEA – Higher Education Authority

HEI – Higher education institution

IoT – Institutes of Technology

LLL – Life-long learning

NFQ – National Framework for Qualifications

ODL – Open and distance learning

OECD – Organisation of Economic Cooperation and Development

PIAAC – OECD Programme for the International Assessment of Adult Competencies

QQI – Quality and Qualifications Ireland

QS – *QS World University Rankings*

R&D – Research and development

RDI – Research, development and innovation

TES – Tertiary education system

THE - *Times Higher Education World University Rankings*

TU – Technological Universities

WEF – World Economic Forum

7. Endnotes

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