Extent to which the Irish experience and policy framework are aligned with, and equipped to respond to, international trends and developments

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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.[1] 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 cause of its vulnerabilities.[2] The Covid-19 pandemic is likely to influence and accelerate 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.[3] These developments will have a significant influence on the future growth pattern of Irish society and economy, and Irish universities into the future.[4]

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

1. Trends influencing the expansion of Irish universities 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,[5] and 10m across the island of Ireland. Population growth is due primarily to high immigration and high fertility rates.[6] 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.[7] 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 will 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.[8]

Spatially, despite projected population growth, all regions apart from Dublin and Mid-East are likely to lose population. 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.[9] While the future will be shaped by different types of working arrangements, 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.[10]

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."[11]

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.[12]

At the start of the 20th century, 3,200 students were enrolled at six universities on the island of Ireland. Today, there are almost 230,000 full- and part-time students enrolled across government-aided institutions, principally universities and institutes of technology (IoT), across the Republic of Ireland.[13] 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 will peak at 242,392 in 2031 before declining to around 225,000 by 2040. Notably, the assumptions only pertain to full-time students.[14] In addition, these projections do not include the 27,000 students enrolled in the private higher education (PHE) sector,[15] or adults enrolled in non-formal or informal education. When the PHE students are included, the total number of higher education students in 2020 is almost 260,000.

Ireland has one of the highest levels of tertiary education attainment and completion rates in the OECD with 47% of 25-64 year-olds surpassing the EU2020 target of 40%. The economic returns for individuals are significant. Tertiary-educated adults earn 81% more than those with an upper secondary education[16] – an outcome which does not "strongly support the human capital hypothesis of overeducation".[17] The overall majority of students on bachelor programmes are typically 19-21 years old.[18]

Despite this significant achievement, PIAAC results show Irish adults perform significantly below the OECD average in both literacy and numeracy.[19] 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.[20] 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.[21] 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.[22] Of the 3m people of working age, almost 30% were deemed to be economic inactive.[23]

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. Regional disparity is also evident in Ireland with discrepancies apparent with respect to student choice and tertiary participation[24] and at the graduate level. Fifty per cent of graduates are based in Dublin. Of the 2017 graduating year, 43% of honours degree graduates were working in Dublin and 14% were employed in Cork. Of post-graduates, 47% were working in Dublin and 13% working in Cork. 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.[25]

Brexit, digitalisation and recovery from the Covid-19 pandemic induced (global) recession will present significant challenges.[26] 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.[27]

A pattern of people feeling "left behind" is associated with high levels of public and political distrust. Ireland has some similarities. 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.[28] Levels of public distrust are higher in Ireland than in many other EU countries, and also higher than either the USA or UK – despite the very high levels of support during the Covid-19 lock-down.[29] There is also a worrying gap between Irish people's perception of issues and the reality.[30]

Formal life-long learning opportunities are still relatively under-developed although levels of Irish adults participating in learning has increased steadily over the years.[31] At 12.5% it is above the EU average but below the EU 2020 target of 15% adult participation[32] in life-long learning (LLL) which includes formal, non-formal and informal.[1] Almost 50% of adult learning

[1] 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, universities 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,

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.[33] 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.[34] 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.[35] Four in five students and two-thirds of staff rated the quality of 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 depend upon economic circumstances within the country and opportunities abroad, and whether the figures include public *and* private higher education institutions. Of 2018 Irish honour degree graduates, 9% were working overseas.[36] 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.[37] Full-time international undergraduate and postgraduate students have continued to increase reaching approximately 23,000 in 2018, accounting for 10% of total students in public HEIs.[38] Almost 22% of non-Irish immigrants were registered as students according to the CSO.[39]

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.[40] 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 only occurred in 2020.[41]

Public expenditure on higher education has declined relative to rising student numbers.[42] While the number of higher education students increased by 15.5% between 2007-2009 and between 2014-2016, total real public expenditure decreased by 12.5%. In 2016, spending per third-level student (EUR 9 699.5) was the lowest since 2012, dropping by 16% against 2015 (EUR 11 557).[43] The greater use of private funds, including the student contribution, has helped modulate the impact. Another modifying factor has been the significant increase in international students and ancillary services. However, what were envisaged as lucrative

reading a professional magazine etc.). See DES (2016) *Ireland's National Skills Strategy 2025*, Dublin: Department of Education and Skills, p95

revenue streams have been badly affected by the Pandemic with estimates of a loss in international student fee income of €181m.[44]

University rankings are often used to assess, and compare, Irish performance however results vary considerably. Individual universities 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.[45] For example, the EU *Innovation Scorecard* names Ireland as a strong innovator having improved by almost 10% between 2012-2019.[46] Individual researchers are named as among the top-1% in the world.[47] In contrast, the three main global university rankings – ARWU, THE and QS – show Irish universities slipping beyond the top-100. There is a strong correlation between the performance of universities in global rankings and country-level variables, such as population and economic size, R&D expenditure, and English language.[48] 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[2], a fall of 23 places since 2013.[49] 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 24th in 2016.[50] It is uncertain what impact Covid-19 will have on the meaningfulness of university rankings given the magnitude of the impact on universities internationally;[51] indeed it could be argued that rankings have incentivised universities to over-expand their percentage of international students with the dire consequences now anticipated.[52] 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 universities and systems.[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*,[53] *Project Ireland 2040 Building Ireland's Future*,[54] *Enterprise 2025 Irelands National Enterprise Policy*,[55] *Enterprise 2025 Renewed*,[56] *Future FET – Transforming Learning*, *Ireland's National Skills Strategy 2025*,[57] *National Strategy for Higher Education to 2030*,[58] *Irish Educated Globally*

[2] 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.

[3] It is important to note that while attention focuses on the top-100, these universities 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).

Connected: An International Education Strategy for Ireland (2016-2020),[59] *Innovation 2020,*[60] and the *National Plan for Equity of Access to Higher Education 2015-2019*.[61]

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".

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 are 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 universities 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 also 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.

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