Progressing a Unified Tertiary System for Learning, Skills and Knowledge

PAPER 1

1. Introduction

In May 2022, the Minister for Further and Higher Education, Research, Innovation and Science launched a "policy vision for a more unified tertiary education and research system…as part of the mission to develop Ireland's higher and further education and research and innovation systems, to ensure they are capable of meeting the diverse needs of all people." The first phase of the process to develop the policy vision involved publication of *Progressing a Unified Tertiary System for Learning, Skills and Knowledge – policy platform*[1], and an open consultation process. This was followed by the publication in December 2022 of *Progressing A Unified Tertiary System for Learning, Skills and Knowledge: Consultation Report*[2] which included a response from the Department of Further and Higher Education, Research, Innovation and Science (DFHERIS).

The Minister is moving towards the development of a detailed strategy for a unified tertiary education and research system, as provided for within the provisions of the Higher Education Authority Act 2022. As the consultation to date shows, the context is complex and linked to interdependent strategic issues which encompass a range of actions across DFHERIS, Government, the education and research system, business, civil society and other stakeholders. This therefore calls for an approach that can engage all stakeholders and reflect their input – a process of co-creation of the strategy. This will be based on a consultation process that is highly participatory, open minded, wide-ranging and responsive, useful to all stakeholders and one that enables the voice of the stakeholders to drive the analysis and design of this strategy.

This is the first in a series of papers commissioned by DFHERIS and prepared and authored by BH Associates, an external consultancy with national and international experience in post-secondary and tertiary education and training. Each paper prepared by BH Associates has a similar status to the authored IGEES Spending Review papers that are prepared to provide an information and evidence base for the Estimates. No element or aspect of these papers, therefore, can or should be interpreted and represented as setting out the Department's views which in any event will be guided by the consultation and engagement with stakeholders as work proceeds on the Tertiary Education Strategy.

This paper represents the independent external research, analysis and findings of the authors and the authors alone are responsible for their conclusions. Any opinions in expressed in these papers are solely attributable to the authors the views of the authors and do not necessarily reflect the views of DFHERIS. Their purpose is to pose pertinent questions,

generate ideas and provide a basis to stimulate debate and dialogue with stakeholders to help advise and inform future work and engagement on the development of a proposed Strategy for Tertiary Education.

This is the first paper in the series. It sets out the context for why a unified tertiary system is being discussed and promoted now; examines the current Irish post-secondary education and training system – successes and challenges – and considers the implications for skills, the economy and society. It does this while placing Ireland's experience within the context of trends, developments and policy making, internationally. It outlines, at a high level, what a well-functioning unified tertiary system might look like and the risks and challenges achieving this outcome presents. It concludes with some prompts to further and deeper discussion by way of questions to think about as we move forward.

Future papers will look at:

- Governance, regulation and funding of a unified tertiary education and training system, based on strong institutional autonomy, including more effective inter-institutional collaboration, maintenance of institutional diversity and missions.
- Regional Research and Innovation Ecosystems including place-based and place-responsive collaboration between different parts of the tertiary education system (further education and training FET, technological universities and research universities), enterprise and civil society.
- A learner-centred approach. What does this mean, how does it work in practice, how can it be achieved across the full tertiary system, and what are the implications for learners and institutions. How can researcher and educator pathways enhance/widen opportunities and expand career choices.
- Pedagogical innovation to include desired developments in the second-level system, including the use of technology and innovation in education and training and its role in supporting learners of all ages and advancing the goal of lifelong learning. How could well-developed competency-based education (CBE), Recognition of Prior Learning (RPL), and a national credit transfer systems help bring-about a unified tertiary education and training system.

2. International Trends and Issues

KEY FINDINGS

- Post-secondary education has been transformed from something undertaken by elites to universal participation.

- Boundaries between vocational/professional and academic education have become porous and include such developments as work-based/work-informed learning, competency-based education (CBE) and new forms of apprenticeship.
- Post-secondary education has become synonymous with "going to uni", promoted by family aspirations, pursuit of status and social advantage.
- As higher education participation has risen, the desirability of FET (in some jurisdictions VET-vocational education and training) has declined, being seen either as an alternative access route to higher education or as a provider "of last resort".
- Advanced economies are experiencing an increasingly polarised labour market alongside a hollowing out of middle-skilled jobs.
- Demographic changes are posing a challenge across the OECD as the traditional post-secondary education cohort declines and older people are a growing proportion of the population – with implications for tertiary education and the labour market.
- Regional research and innovation (R&I) eco-systems add value to regional/local economies by building on local expertise, products and needs and helping close the regional disparity gap.
- Responding to growing demand, governments are rethinking the way in which tertiary education is being delivered, funded and governed.

Globalisation, an ageing population, the technological and digital revolution leading to increasing use of automation and artificial intelligence, climate change and moves towards a carbon neutral economy and resource scarcity – alongside changes arising from the Covid-19 pandemic – are reshaping our societies, how and where we live and the world of work. These developments are impacting and transforming tertiary education around the world. The impacts and effects vary according to national context but the trends are similar. [3]

Over the last 50 years or so, post-secondary education has been democratised – transformed from something undertaken by elites to universal participation.[4] In 2022, the share of 25–34-year-olds with a tertiary qualification in OECD member countries exceeded 50%. Participation in advanced countries will continue to grow – albeit at a slower rate – in response to social, economic and technological changes.[5] This increase is expected to be greater for women, thus widening the gender gap in tertiary attainment.[6] In contrast, the Global South is expected to continue to expand.[7] The OECD estimates that if current trends continue, 70% of young people with tertiary education will come from non-OECD G20 countries by 2030 reflecting dramatic changes in the geography of the global talent pool.[8] This growth is reflected in the growing number of universities, rising from around 12,000 in 1997 to over 20,000 officially accredited or recognized higher education institutions today (HEIs).[9] International student mobility is also rising but it remains an elite activity involving only 2.6% of the total world student population.[10]

As post-secondary education has expanded, it has diversified. Learners now include people previously unable to access due to socio-economic circumstances, age, gender, race/ethnicity, citizenship status as well as people combining work with study or family responsibilities. New types of institutions with different missions, programmes and modes of study have emerged to meet the demands and needs of this diverse cohort of learners and of society. The rapid rise of polytechnic education from the 1970s onwards offering higher professional and technical skills (for example, universities of applied sciences, Fachhochschule or dual-sector institutions) is largely responsible for this increase.[11]

Some countries have a strict binary system with distinct professional and higher technical streams often starting in the teen-years, such as Germany, while others, such as the USA, have comprehensive or multi-purpose universities alongside community colleges which provide vocational education as well as alternative routes to higher education.[12] Over time the boundaries between vocational/professional and academic have become porous. Emphasis on learning outcomes and employability have meant that traditional universities and polytechnics both offer professional-oriented programmes often in partnership with employers. In fact, professional education, e.g., medicine, engineering, education and business, now constitute a significant proportion of all programmes in traditional universities. 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 now commonplace.

Economic and technological requirements for labour have pushed skill demand beyond secondary education while pursuit of status and social advantage has driven demand for degree-level qualifications.[13] There is a strong magnetic effect between participation and the rise of the middle class wherein the "penalties of non-participation grow".[14] There is increasing "demand for individuals who possess a broader knowledge base, more specialised skills, advanced analytical capacities, and complex communications skills."[15] Mounting professionalisation of many fields, e.g., nursing, early education and childcare, technicians, etc. has also enhanced the value of higher education.

In many OECD countries, post-secondary education has become synonymous with "going to uni". The bachelor/master/doctorate ladder has become the universal qualification framework for the post-secondary education space; this has implicitly signified that the post-secondary education space should be defined by the higher education subsystem. Educational credentialism has increased vertical stratification and influenced opportunities[16] – which in turn has driven global rankings.

As higher education participation has risen, participation in FET has declined – seen either as an alternative access route to higher education or as a provider "of last resort".[17] Courses are often too limited in nature and perceived as a dead-end. Even in Germany, which has a historically strong vocational sector, societal preference for higher levels of education –

including higher technical education – is surging; indeed, many who choose vocational education eventually go on to HE.

Tertiary qualifications carry a significant premium which rises with the level of qualification – although this can vary by country and field. Across OECD countries, on average, "full-time full-year workers with tertiary education earn approximately 55% more than those with upper secondary attainment."[18] In the USA, the biggest factor influencing salary and lifestyle, after attendance at an elite university, is field of study. In Australia, FET graduates may earn more initially than higher education graduates but overtime higher education qualifications "tend to lead to higher pay, more autonomy, supervisory responsibilities and more opportunities for career progression."[19]

In advanced economies, these developments are leading to an increasingly polarised labour market between highest- and lowest-paying occupations alongside a hollowing out of middle-skilled jobs.[20] This has consequences for social cohesion and political participation. By 2030, higher skills will constitute more than 40% of the required skills mix, but almost 45% of jobs will still require medium level skills – those which require some post-secondary education and training, but less than a four-year college degree.[21]

Demographic changes are posing another significant challenge. In many countries across the OECD, the traditional post-secondary education cohort is declining at the same time that older people are a growing percentage of the population. According to the OECD, whereas 37% of the population was comprised of people aged 50 and over in 2020, this cohort is forecast to rise to 45% in 2050. Companies are reporting talent shortages with skilled trades at the top of the list of occupation groups in under-supply.[22] As the population ages, people are likely to require upskilling, re-skilling or repurposing their qualification in response to changes in the labour market – or their own personal life choices.

These developments have raised concerns about skill gaps and "labour mismatch" – a contentious concept which argues qualification levels do not necessarily equate with better skills, especially if people lack the right skills or cannot make use of them.[23] The OECD Survey of Adult Skills (PIAAC)[24] shows a sizeable proportion of adults in some countries having poor reading, numeracy and problem-solving skills, and significant numbers have limited experience of computers. This has raised questions about the quality assurance system itself – to the extent that employers are by-passing academic credentials or developing their own.[25] Others argue that too much blame has been placed on education providers – the supply side – rather than on employers, salary and/or working conditions – the demand side. Skills and employment are critical outcomes but they are not the only indicators of success; economic growth and well-being reinforce each other.[26]

The Covid-19 pandemic exposed many inequalities and accelerated many changes across the tertiary landscape. It was clear even before the pandemic that "much face-to-face teaching was – and is – badly in need of radical reform"[27] but more changes are needed to adapt to the needs of the changing learner cohort and society. This includes innovative and accessible

programming, shifting from standardised semesters towards greater flexibility including hybrid delivery, and changes in pedagogical approaches.[28] There is increasing interest in new forms of internships and work-based/work-informed learning, earn-and-learn models as well as competency-based education and micro-credentials to support adult, part-time and mobile learners, as well as refugees and migrants, drawing on their knowledge and skills.

There is increased emphasis also on learning and career pathways – or "career navigation" as it is being called in the US[29] – to facilitate a more diverse learner cohort helping learners map out and facilitate coherent transitions between, or within, different institutions and onwards to a chosen career. Learning pathways should provide a coherent system-level approach which goes far beyond bilateral articulation agreements between higher and further education institutions.

Credit transfer systems[30] and digital credentialing are being considered to facilitate mobility and allow learners to accumulate credits over time according to their circumstances, incorporating non-formal and informal learning. Too often however the transfer system is dominated by higher education via bilateral agreements or individualised processes which make it hard for learners to transfer. While emphasis is on transfer from FET to HE, there are few opportunities for learners to go from HE to FET.

Responding to growing demands for and on tertiary education by citizens and employers, governments around the world are rethinking the way in which tertiary education is being delivered and funded. Objectives include: promoting social equity by providing alternative opportunities for people to pursue tertiary education throughout their lives, satisfying future skill needs, and identifying better ways to procure, allocate and deploy resources more effectively and efficiently.[31]

Policy options are broadly looking to create greater mission diversity by emphasising horizontal differentiation rather than vertical differentiation which tends to enhance social stratification. There is a decided shift towards ensuring a diverse knowledge and skill base embedding competences in critical thinking and complex problem solving, innovation and entrepreneurship. Emphasis is placed on ensuring a broader educational and intellectual foundation as a passport to the new world of work and meeting societal challenges. After all, children born today will live into the next century.[32]

This relates particularly to high-quality professional and vocational education, which has been given a lower priority in education and training policies in many countries, in favour of expanding higher education. However, professional and vocational education is increasingly being recognised as a vital part of a multi-faceted post-secondary education system. While a BA is "indisputably valuable (…) it is not the only avenue to remunerative and fulfilling work. Expanding opportunities in career and technical education and certain blue-collar and STEM occupations could also help more young people achieve financial security."[33]

The creation of regional research and innovation (R&I) eco-systems forms a key part of place-based and place-responsive smart specialisation strategies.[34] The objective is to add value to

regional/local economies by building on local expertise, products and needs whilst meeting sustainable development goals (SDG). Developing, retaining and attracting people of all abilities, recognises that process, product and social innovation can be equally, if not more, powerful than technological innovation. While most attention is focused on the role of research universities, FET has the capacity to support innovation by raising the overall productive and absorptive capacity in high-tech as well as low-tech industries, and drive competitiveness and growth policies.[35]

Because people are stickier than knowledge, the geographic spread of education and training[36] is also receiving appropriate attention – otherwise it will be impossible to close the regional disparity gap. Creating centres of excellence around regional priorities – smart specialisation for institutions – could help reinforce mission differentiation. This requires close collaboration between all educational institutions (especially FET and HE) and stakeholders across the enterprise/SME and civic/community sectors.[37]

Getting the balance right can be tricky, not least because existing boundaries between, and biases about, academic, technical and vocational education and training are blocking learning pathways and innovative thinking. Active engagement of employers, as in New Zealand and Germany, is increasingly seen as essential. The private sector is progressively active in this space; it is seen as more responsive to the needs of diverse learners and to competency-based learning, micro-credentials and other forms of just-in-time learning. The US, UK, and New Zealand allow FET to provide BA qualifications while others such as Scotland operate a strict demarcation between further and higher education provision. These developments suggest it doesn't matter where learning takes place. However, the trend is clear – the two systems are converging, with lots of variety and modes of learning.

Models for financing tertiary systems vary considerably but they principally focus on full-time undergraduate learners in higher education. Spending per learner is highest at the tertiary level, and higher again for those institutions which undertake research and development. Funding for mature learners, life-long learning opportunities and the quality of facilities and supports tend to be limited, and do not take sufficient account of challenges experienced by learners with family or other responsibilities.[38] This imbalance fuels public perceptions as to which educational opportunities are more favoured.[39]

Governance arrangements also differ, with Scotland, New Zealand and Wales notable for having established a tertiary education authority. The single agency has benefits; it is a one-stop-shop for everyone to have a conversation with a focus on learner success and careers. It is seen as breaking down silos and avoiding capture by lobby groups and it links up all regulators.

At the same time, there is a realisation that quality outcomes for the tertiary system depend on the educational system as a whole. Personal development and access to good education, training and careers begin early – in preschool. Career guidance and counselling is essential to ensure well-informed learner choice and it needs to begin early as students begin to form

study choices between the ages of 7-12. Educational systems which are broad and provide a general education at primary and secondary – and do not stream students – offer a better basis for the future.

3. The Current Irish Context

KEY FINDINGS

- Ireland has a successful and robust education and training system, with 91% of students completing second-level education – one of the highest in the developed world.
- High levels of HE attainment have contributed significantly to the dramatic transformation of Ireland's economy, while the implications for Irish society have also been profound.
- Ireland's emphasis on HE over FET reflects the international trend among school-leavers and their families. In recent years, there has been an upward trajectory for apprenticeship and Springboard enrolments.
- Major skills shortages exist in key areas of the economy, including in jobs requiring moderate level skills (typically skills acquired through FET programmes), again reflecting international trends.
- There is some evidence of over-qualification with approximately 15% of the labour force considered to be overqualified graduates, albeit economic returns to graduates remain significant.
- While Ireland still has a relatively young population, it is ageing faster than elsewhere in Europe with implications for the education and training of adults.
- Demographic changes, changing work arrangements and spatial distribution patterns have significant implications for tertiary education and R&I.
- National policy response mirrors that of other countries – building stronger connections within and across further education and training, higher education and the research and innovation system and in this way, creating a more unified tertiary education system.

The Irish post-secondary system reflects many of the international trends outlined above. Ireland reflects, and surpasses, the universal participation seen in other advanced economies. According to a recent report from the Central Statistics Office, 91% of students complete second-level education – one of the highest in the developed world according to the OECD.[40] In addition, 63% of the 25-34 age group in Ireland have higher education qualifications. This

significantly outpaces the attainment level among our EU partners and makes us a leader among OECD countries. Ireland was in fact above the EU27 average across all age groupings last year, with the 25-34-year-olds showing the largest difference at 21 per cent.[41] Those aged from 35 to 44 have an attainment level of 58% while one-third of 60 to 64-year-olds have a higher education qualification reflecting the increased levels of participation in third level education over time. At the same time, 13.3% of the relevant age cohort are neither in employment nor education and training (NEET) which implies that approximately 20.5% progress to FET.[42]

The resulting high level of participation in higher education has been a huge achievement for Ireland and has led, along with membership of the European Union, to the dramatic transformation of Ireland's economy. From being heavily dependent on protectionist policies and agriculture, Ireland now has one of the most open economies in the world and one of the best performing in the EU. Without question, adoption of the knowledge economy paradigm has transformed Ireland. The implications for Irish society have also been profound, going beyond the undoubted economic benefits, as the country moved from a highly conservative, inward-looking society to one characterised by a more open-minded, liberal democratic ethos. Today, Ireland is a successful, high-skilled, internationally-open trading society. Geopolitical, social, economic and technological changes will continue to have a profound influence on Ireland. Our education and training system needs to continue to be at the heart of Ireland's success, socially and culturally as well as economically.

Ireland also reflects the international trend among school-leavers and their families in an emphasis on higher education ("going to uni") over further education and training, with implications for moderate level skills, as well as the personal development of the young people concerned and their future. The culture is one where university education is regarded overwhelmingly as the route to personal and professional success and FET is a second-best choice.

While Ireland reflects the international drift away from FET, the situation is more complex. The most recent *Education Indicators for Ireland 2022*[43] shows that while there has been a downward trend in terms of school-leaver progression to FET (26.3% in 2017 to 22.2% in 2020) there has been an upward trajectory for apprenticeship enrolments and Springboard enrolments. Full-time FET enrolments across all NFQ levels have also increased. This demonstrates the value in creating a range of pathways and options for learners of all ages and abilities and in raising the profile of FET options and apprenticeships. It also illustrates there is still much more to do with respect to improving overall equality, diversity and inclusion (EDI) across all apprenticeship areas; the 3000th female apprentice was only registered earlier this year.[44]

Due in part to learner choice, and despite high levels of employment (unemployment registering 4.3% in January 2023), there are major skills shortages in key areas of the economy, including in jobs requiring moderate-level skills such as care workers in the health system, bus drivers, construction workers, engineers and other trades. This reflects international trends

referred to earlier. In effect, there is a greater level of difficulty in filling jobs requiring a moderate level of skills (typically skills acquired through FET programmes) than is the case in filling jobs requiring lower-level skills and those requiring higher-level skills.[45] The recently published OECD report "*OECD Skills Strategy Ireland: Assessment and Recommendations"* provides a detailed analysis of the Irish skills landscape.

In addition to better matching the outcomes from our education and training system to current needs, Ireland will need to ensure it has the range of knowledge and new skills to meet future challenges and opportunities. Digital skills will be essential. However, fewer than half of tertiary 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%).[46]

The high HE attainment level also raises the issue of over-qualified employees. While economic returns to HE graduates remain significant, the graduate premium cloaks under-employment and labour mismatch. Approximately 333,500 workers, or 15% of the labour force, were considered to be overqualified graduates.[47] Of the new jobs created in 2008-2019, almost three-quarters were filled by graduates underutilising their skills. Women are most likely to be overqualified, comprising 56% of all overqualified workers. The most significant overqualified workers studied in four broad areas; business, admin and law; arts and humanities; engineering, construction and manufacturing, and health and welfare.

Over-qualification has many negative implications for individuals, employers, the economy and society. For individuals, it can lead to lower job satisfaction and a sense of disappointment and betrayal of a promise implicitly or explicitly made – that a HE qualification ensures a high-income job. At employer level, unfulfilled, disgruntled employees are a challenge and employers may have difficulty in finding recruits to work for non-HE based remuneration levels. At a national level the skills mismatches and skills shortages impact directly on economic performance with the added risk that public funds for education and training are directed to HE to meet demand – funds which could be more impactful socially and economically if invested in other parts of the system. There may also be social consequences, over and above economic implications. A polarised skills structure can lead to growing income inequality and social exclusion. As yet, this has not translated into significant levels of social tension in Ireland, but such inequality, combined with the level of unfulfilled ambition of graduates caused by over qualification, shortage of housing, high rents, and the rising cost of living poses a threat to the social contract.

Ireland's demographic profile is also changing. Our relatively young population is undoubtedly a strength, but Ireland is also ageing faster than anywhere else in Europe. Moreover, due to the size of Ireland's young population, 60% of people in the labour force today will still be eligible workers in 2035.[48] This poses challenges as to the capacity of the education and training system to support adults seeking education and training relevant to their changing life circumstances.

Formal life-long learning opportunities are still relatively under-developed although levels of Irish adults participating in learning has increased steadily over the years.[49] 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%[50] but below the EU 2020 target of 15% adult participation in life-long learning (LLL) which includes formal, non-formal and informal.[51] 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.[52] 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 and then into work rather than into other forms of tertiary education or on adults re-entering at a later stage in life.

In addition, despite projected population growth, all regions apart from Dublin and Mid-East are likely to lose population.[53] 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. Although Ireland has one of the "lowest regional variations across OECD countries with available data,"[54] regional disparity remains an issue with respect to discrepancies in student choice and tertiary participation[55] and at the graduate level. Almost half of graduates work in Dublin while just 4% find employment in the southeast, 3% in the border region and only 2% in the midlands.[56]

Demographic changes, new work arrangements including the shift to hybrid working,[57] and spatial distribution patterns have significant implications for tertiary education. ETB schools and education centres are spread around the country and the establishment of technological universities has significantly expanded geographic access to university. However, heretofore place-based and place-responsive smart specialisation strategies have played only a relatively minor role excepting the criteria for technological universities.[58] While there has been strong research planning and investment over the last decade, with many local initiatives, a recent review suggests the conceptualisation of smart specialisation and greater attention to building productive and absorptive capacity "beyond those companies with existing research expertise" is underdeveloped.[59] This suggests a much greater role for all education providers, FET colleges and universities, to work collaboratively according to their missions but with strengthened "boundary spanning" roles in their regions (whether urban or rural).[60]

4. The Policy Response

The Programme for Government sets out the intent to create a world-class education system, building stronger connections within and across further education and training, higher education and the research and innovation system. Central to the policy objective of a more

effective education and training system is the creation of a more unified tertiary education system. In such a system, irrespective of where learners enter further education and training, higher education or a research career, they are in a single system which responds to individual talents, ambitions, and motivations and responds to middle- and high-level skills needs. The system should provide opportunities for reskilling, upskilling and repurposing qualifications best suited to the learner's age, stage of development, interests, and life-circumstances. All institutions in such a system should be differentiated according to their mission, role and responsibilities but would work collaboratively within a single knowledge, skills, and innovation system. The system should work collaboratively to maintain and ensure Ireland's global competitiveness, sustainability and prosperity for all living here.

As set out in *Progressing a Unified Tertiary System for Learning, Skills and Knowledge: policy platform* a more unified tertiary education and research system should provide for –

- More diverse education and training opportunities for all learners and researchers, with clear and extensive pathways into and through a more seamless system and in harmony with changing lifestyles and circumstances;
- An intensified focus on equality, diversity and inclusion across the whole of the tertiary system to better facilitate access and progression across the whole system to enable people to successfully achieve their ambitions;
- A more effective and responsive education and training system adapting to future changes and challenges, including those arising from technological and digital transformation, climate change, increased life expectancy, and a rapidly changing labour market and society;
- More balanced regional development with further and higher education institutions and research centres at the heart of this process and collaborating with each other and the wider community;
- Optimised learning and development opportunities, enabling all learners to acquire the necessary new knowledge and skills to develop their talents, promote lifelong success and support Ireland's social, cultural and economic sustainability.

5. Elements Of a Unified Tertiary Education and Training System

To achieve the objectives set out above the following are proposed as the elements of an effective tertiary education and training system. They are set out at a high level and will be addressed in more detail in subsequent papers. The elements are outlined in terms of those seen as essential to creating the system and those which, although not essential, are desirable in an optimal system.

Priority Elements

- **Unified Policy and Practice Across All Relevant State Agencies**

The key relevant agencies are SOLAS, QQI, the HEA and SFI/IRC, and to a lesser extent agencies with responsibility for government functions relating to workforce planning and career guidance in schools. While a single agency to carry out their current combined functions has much to commend it in terms of "acting as one", it is noted that the current policy aims of DFHERIS are to ensure that SOLAS, QQI, HEA and SFI/IRC take more integrated and collaborative approaches to further and higher education governance, regulation and performance evaluation. This, once effectively achieved, would do much of what a merged single agency could do without the inevitable distraction caused by a merger process. However, key to effectiveness will be a robust governance and accountability structure, capable of ensuring the kind of integration, collaboration and outcomes/impacts necessary.

- **Balanced Funding Model**

A reformed funding model should be developed to ensure full alignment with what the unified tertiary education strategy seeks to achieve. The aim should be to bring policy, governance and funding together to ensure greater coherence, and no underlying discriminations between FET and HE for either learners or institutions. Ultimately the funding model begets the type of system we want.

- **National Credit Accumulation And Transfer System**

A National Credit Accumulation and Transfer System to create opportunities for learners of all ages and ability to progress through tertiary education by building credits and credentials over time and carrying them from one programme, or one institution, or form of education and training, to another.

- **Guided and Navigable Learning Pathways**

Complementary to a National Credit Accumulation and Transfer System, guided and navigable learning pathways would facilitate learner progression through tertiary institutions and programmes into work and back again and, through two-way communication with employers and civic society, enhance learner capacity to identify required skills. The objective should be to create a system that provides a clear understanding to learners, parents and employers of the knowledge and skills that each programme provides, how the programme will operate to support learners in acquiring those, suitable for different educational levels and associated employment opportunities:

  - Providing all learners, of all ages and abilities, with information about the education, training and career options available to them through the career guidance system;
  - Informing learners, and parent/guardians, of the benefits of alternative careers opportunities;

- Informing employers and other stakeholders of the competencies of graduates from each tertiary education and training programme;
- Providing an effective line of communication from employers into the tertiary education system at national and regional levels.

- **Accessibility of Tertiary Education and Research Data**

A comprehensive approach to information and data across all dimensions of tertiary education, including the entire cohort of learners, graduates and staff, and learning experiences, is required to support a more unified tertiary education and research system.

A National Research Information Management System to store, manage and exchange data and enable exchange between institutional research information systems and repositories.

Enabling open and transparent ways to share and validate education and research are essential: it facilitates better connectivity, collaboration and benchmarking across the tertiary and R&I eco-system and internationally.

- **Regional Research and Innovation Eco-Systems**

Building on our excellent research base, emphasis should be placed on developing sustainable R&I eco-systems with strong cohesion and cooperation between all educational institutions, research centres, employers/companies and civil society at the regional, national and sectoral levels. They should advocate a place-based and place-responsive approach to R&I. FET, working with higher education, can play a direct and dynamic role in the innovation eco-system by promoting and diffusing knowledge, especially related to process and service innovation.

- **Flexible Education and Training Opportunities**

The tertiary system of the future should put learners at the centre, empowering them to tailor their entry, exit, assessment and qualifications to their personally determined needs. There must be a more conscious determination to pivot away from recognising students only as 18-year-olds. Instead, the tertiary system must meet the needs of learners of all ages and abilities – especially those who have been unable to overcome social and economic barriers to access and those who wish or require to re-enter later in life.

The curriculum development process should have a greatly expedited timeline from ideation to (re)design, learner entry to graduation and into the labour force. The academic calendar should be reformed to provide more flexible education and training opportunities with shorter courses/programmes and new forms of modularised and micro-credential programmes. There should be options to expedite completion of programmes and graduation. More focus should be placed on work-based/work-informed learning, employability and work placements, competency-based education (CBE) and the new forms

of apprenticeship. Learners should have year-round use of education and training infrastructure with greater porosity between full- and part-time provision, with changes in the structure of the academic year to provide year-round provision

Additional Elements

- **National Open and Distance Learning (ODL) Platform**

A National Open and Distance Learning (ODL) Platform providing an internationally competitive inclusive education, training and research system, while avoiding the costs and other inefficiencies of institution-specific solutions. Because learning takes place everywhere, the ODL Platform should be available in public libraries and other public spaces.

Emphasis should be placed on digital and hybrid pedagogical approaches to transform teaching and learning rather than merely incorporating them into existing approaches. The effective use of technology to provide supports to learners, allowing them to interact with each other and with faculty, enhancing both the quality and quality of their engagement and addressing some of the issues around isolation that can hold learners back.

- **Aligned Second-Level System**

Formal education is a continuum from early childhood education to active life-long learning. The relationship between second-level education and FET/HE is of particular importance in creating a coherent tertiary education and training system, and to provide opportunities throughout people's lives. The culture of second-level schools leans (too) strongly towards preparing their learners for higher education. The links between second-level schools and FET appear to be generally very weak with schools focussing on progression to higher education. Schools could also do more, through communications and career guidance, to support their learners to make better informed choices at this important transition point. The processes employed by the CAO should, as far as practicable, provide equivalence in treatment between HE and FET programmes.

6. Challenges, Risks and Mitigation Strategies

(a) As a major reform of post-secondary education and training, the development of a unified tertiary education system carries risks and challenges, as well as opportunities. Probably the greatest risk lies in creating a homogenous system with all post-secondary level institutions doing, or striving to do, much the same thing. This would remove all vestiges of mission diversity and differentiation, and lead to strong HEIs cherry-picking and

incorporating the more attractive aspects of FET and other providers to the detriment of learners and society. It could transform the "public good" attributes of Ireland's tertiary system into a competitive market.

The Policy Platform paper is clear in its emphasising that the intent of the policy to progress a more unified tertiary system is not to engender homogeneity in the system but rather to support and empower the distinct elements of the system to collaborate and engage better together towards common objectives.

The work of the HEA and SOLAS in employing the funding model, combined with the strategic dialogue process and performance compacts, to hold institutions to account and provide agreed outcomes and impacts consistent with their mission and societal/regional needs will support the diverse missions of the elements of the system. Working in close collaboration, as proposed earlier, will strengthen this concept of unified, not uniform.

(b) Another significant risk lies in the very policy that aims to create better pathways within the tertiary system. The risk lies in creating the appearance (or actuality) that the primary role of FET is as a pathway to HE. This would merely reinforce existing perceptions and lead learners to conclude that they should opt for direct entry to HE. Too much emphasis on bilateral agreements or narrow pathways would simply capture learners and restrict opportunity and choice.

A clear communications strategy would mitigate against this risk. This would, as outlined earlier, provide a clear understanding to learners, and parents, of the knowledge and skills that each programme provides and how the programme will operate to support learners in acquiring these skills and the sectors where those skills are in demand. A good communications strategy would also communicate to employers and other stakeholders the competencies of graduates from each programme.

(c) There is increasing talk about regions and regional development, but this has yet to translate into a substantial regional development approach across the system. To mitigate against this, greater emphasis on genuine regional civic-engagement with an emphasis on place-based and place-responsive policy is needed. This requires appropriate governance arrangements to generate a stronger, unified eco-system approach to R&I, addressing regional disparities and ensuring sustainability.

(d) A risk exists of over reliance on a unified tertiary education and training system to solve all social and economic ills. The system is a critical part of Ireland's social, cultural and economic infrastructure. Its graduates and educational and research outcomes impact every facet of life. But the many societal challenges are not simply a supply-side problem.

A cross-government approach is vital at policy and at operational level to ensure on-going integrated dialogue between all stakeholders. This includes well-structured engagement between employers and their representative bodies, tertiary institutions, and Government to inform societal, educational and economic requirements and future trajectories.

(e) There is a risk that after major structural reform the unified system is no better at alignment between the education and training system and societal, economic and skills needs than the current system. A unified tertiary education and training strategy may help solve articulation issues, inform learner and institutional choices and promote collaboration, but it will not solve the big problems, such as funding and skills alignment.

7. Questions To Think About As We Move Forward

- Is the "diagnosis" correct – that while the elements of the system have had individual successes and the current system has worked well it needs to be strengthened and improved upon through closer collaboration and alignment so that it avoids fragmentation in response to learners needs and better supports learner choice and opportunities as a key contributor to skills shortages in the economy?
- Is a unified tertiary education and training system the optimal solution to addressing current skills needs and future social and economic development? Are there alternative approaches to achieve the same, or better, outcomes?
- How can we strengthen the missions and roles for the various sub-sectors – further education and training, technological universities and universities – and prevent homogeneity and isomorphism?
- Do the funding models need to be reformed to support a unified system and, if so, how (in broad terms)?
- Can strengthening the R&I ecosystem across the country, through regional clustering and collaboration, help address Ireland's competitive vulnerabilities – education, research and economic?
- What are the practical (ideological?) barriers to a national system of navigable pathways and how could they be overcome.

Appendix 1 – People Consulted

Brownlee, Andrew. CEO, SOLAS

Carnevale, Anthony. Professor and Director of the Georgetown University Center on Education and the Workforce; former Vice President for Public Leadership at the Educational Testing Service (ETS), and chairman of the National Commission for Employment Policy.

Conlon, Tim. Head of Policy and Strategic Planning, International Programmes & Gender Equality, HEA

Croucher, Gwilym. Associate Professor, Melbourne Centre for the Study of Higher Education, University of Melbourne

Ertl, Hubert. Professor, Vocational Education Research, University of Paderborn; Vice President and Director of Research Federal Institute for Vocational Education and Training, Bonn

Fowler, Tim. CEO, Tertiary Education Commission, New Zealand

Hofer, Andrea-Rosalinde. OECD Lead Analyst in the Higher Education Policy Team, Policy Advice and Implementation Division, Directorate for Education and Skills.

Jones, David. Chair of Qualifications Wales; former Chief Executive of Coleg Cambria; Joint Chair Thematic Review of QQI Review of ETBs

Keep, Ewart. Former founder and Director, Centre on Skills, Knowledge & Organisational Performance (SKOPE); Chair in Education, Training and Skills Oxford University.

McGuinness. Seamus, Research Professor, ESRI

Morris, Huw. Honorary Professor Tertiary Education, IOE – UCL; former Director Skills, Higher Education and Lifelong Learning (SHELL)

Parry, Gareth. Emeritus Professor, University of Sheffield

Patterson, Vivienne. Head of Skills, Engagement and Statistics, HEA

Reichert, Sybille. Reichert Consulting for Higher Education; former Chancellor, University Erlangen-Nürnberg

Roy, Simon. Senior Analyst and Team Leader, Higher Education Policy Team, Directorate of Education and Skills, OECD

Smyth, Emer. Research Professor, ESRI

Sweeney, David. Prof of Research Policy, U Birmingham; Deputy Chair, Commission for Tertiary Education and Research (CTER), Wales; former Executive Chair, Research England, UKRI; Director Research, HEFCE

Trapasso, Raffaele. Senior Economist and Head of Unit, OECD Centre for Entrepreneurship, SMEs, Regions & Cities. Currently coordinating HEInnovate and The Geography of Higher Education programme.

Van Damme, Dirk. Independent consultant (DVD Educonsult); Former Head of the Innovation and Measuring Progress Division (IMEP), OECD

Weingarten, Harvey. Principal, School of Applied Health Sciences, Michener Institute; former President and CEO of HEQCO, and President and Vice-chancellor of the University of Calgary

Wheelahan, Leesa. Professor, Ontario Institute for Studies, University of Toronto, Canada/William G. Davis Chair in Community College Leadership.

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