



National Skills Strategy

2015 - 2025

December 2015

Ibec's main business sectors are:

Alcohol Beverage Federation of Ireland

Financial Services Ireland

Food and Drink Industry Ireland

ICT Ireland

Telecommunications and Internet Federation

Irish Medical Devices Association

PharmaChemical Ireland

Retail Ireland

Small Firms Association

Industrial Products.

Key messages

- Ibec endorses the ambition expressed in the recently published **Enterprise 2025** that Ireland should be internationally renowned for its talent, for its highly skilled and adaptive people, equipped with higher order capabilities required in the 21st century workplace, and for its openness to continuous learning.
- The reality of developing a coherent skills strategy which is effectively implemented by a broad range of actors poses significant challenges. In the past, there has been no shortage of policy recommendations, but strategy implementation has been less effective.
- Ireland needs clear, connected and robust structures, processes and measures to underpin the quality and quantity of relevant skills that are needed to deliver on our ambitions.
- The single greatest challenge for the education system at all levels is developing a capacity and appetite for continuous learning in young people.
- Education institutions should provide all students with an understanding of their knowledge, skills and attributes in terms of the value that they can bring to prospective employers.
- It may be difficult to precisely predict the jobs of the future, but we can be confident of an ever-increasing demand for science and technology skills and, given the globalised economy, language skills.
- A significant opportunity exists for government to work with business to develop a cost effective specialist careers and education options advisory service to supplement current guidance provision.
- Increased business links with higher education institutions (HEI), further education colleges, schools and employment services can help to create the opportunities for work-based learning, relevant curricula and improved life-long learning opportunities at a regional level.
- The quality of an education system cannot exceed the quality of its teachers. Moving away from the explicit specification of content towards a more generic, skills-based approach to discipline knowledge is posing a particular challenge for Irish teachers.
- Higher education funding has been particularly badly hit during the economic crisis. Higher education institutions also require more flexible governance and funding systems which balance greater autonomy for the institution with accountability to all stakeholders.
- The neglect of vocational education and undervaluing of professional education because of insufficient opportunity and prestige factors should be addressed by the National Skills Strategy (NSS).
- Ireland has multiple structures to collect information about changing skills demand. However there is a major gap in the use of PPS-based administrative systems to measure education outcomes.
- Since 2012, there have been significant reforms of the State's services to help unemployed jobseekers under the Pathways to Work strategy. As the economy recovers, these reforms should be consolidated to ensure that they will result in a changed reality on the ground.
- Broader policy challenges such as housing, taxation and childcare have an impact on Ireland's attraction to both skilled migrants and our ability to encourage Irish emigrants to return home.
- National Training Fund resources should be concentrated on schemes where the worlds of learning and work are closely linked. The Skillnets enterprise-led training model based on robust training needs analysis, business requirements, curricula designed in collaboration with employers and work-based training is more likely to succeed.
- The NSS should emphasise the important connection between skills development and the country's ability to conduct world-class research and become an innovation leader.
- The national internship programme (JobBridge) has been very successful in persuading almost 18,000 employers to provide unemployed people with quality work experience. However, economic conditions have now changed and new approach is needed to build on the programme's strengths.
- A well thought-out entrepreneurial education policy will maximise the potential of young people to develop the next generation of innovative products, services and processes.
- SMEs require specific support to engage in training, in order to address cost constraints, time-pressures and the need for flexibility in programme delivery.

Recommendations

Recommendation 1:

All higher education institution (HEI) departments and further education colleges should help their students to express their suitability for employment through the provision of an “employability statement”.

Recommendation 2:

DES should publish the findings of the STEM Education Review Group with a view to developing a response and an implementation plan to improve STEM education

Recommendation 3:

The Department of Education and Skills (DES) should publish an integrated and coherent modern languages strategy which extends to all levels of the education system from primary school to adult education/lifelong learning.

Recommendation 4:

DES should fully implement reform of junior certificate curriculum and carry this reform through to a new leaving certificate curriculum.

Recommendation 5

The DES should work with business to develop a contracted-in service to provide one-to-one advice on education options and careers to post-primary school students.

Recommendation 6

Employer engagement should be a key metric in the HEA performance compacts and FET service plans.

Recommendation 7

DES should extend the Regional Skills Forum model to all regions and put in place a three year funding envelope to put the new structures on a sustainable basis.

Recommendation 8

The Apprenticeship Council should publish a fully-costed three year implementation plan with timelines and targets to underpin a pipeline for introducing new apprenticeships.

Recommendation 9

The Teaching Council should complete its work on the National Framework for Teachers' Learning (Cosán) and work towards a model of teacher career development that encourages and rewards ambition and achievement.

Recommendation 10

DES should ensure that Irish mathematics and science teachers have access to the most advanced training, particularly in communicating mathematical concepts and using technology.

Recommendation 11

Government should introduce an effective student fee and loan system to underpin the sustainability of a high-quality higher education system. The case for an income contingent student loan system remains compelling on both economic and social grounds. This should be available to part-time and postgraduate students who are unfairly discriminated against under the current student contribution regime.

Recommendation 12

DES should allow higher education systems to have greater flexibility and autonomy on resource allocations so that they can attract and retain world-class talent.

Recommendation 13

National and local targets should be set for part-time/flexible learning. The targets should be embedded as key metrics in the higher education performance compacts and the further education service plans.

Recommendation 14

Government should implement the recommendations of the HEA's report on part-time and flexible education (2012) including the modification of a student funding model that does not distinguish between full and part-time students.

Recommendation 15

The National Skills Strategy (NSS) should develop a series of specific proposals to make the continuum of tertiary provision, between higher and further education, more systematic. These should include specific measures to ensure that the Higher Education Authority and Solas collaborate more closely, and incentivised through joint funding programmes for upskilling. In the medium to longer term, this would improve efficiency in the use of resources and greater two-way flows between the sectors.

Recommendation 16

Education and skills should be targeted as a domain for the first phase of the Open Data Strategy. As part of this the relevant government departments and agencies (DES, DSP, the Department of Expenditure and Public Reform and the Revenue Commissioners) should start to link citizens' education, employment and earnings data in order to develop a longitudinal data set on education and training outcomes.

Recommendation 17

DES and the DSP should develop protocols to ensure that clients are receiving the most appropriate career advice and their regional offices are engaging with employers in a cohesive manner. DSP divisional managers and/or employer case managers should engage fully with the Regional Skills Fora

Recommendation 18

DSP should rationalise the current social welfare benefits (e.g. carer's allowance, one parent family payment) into a Single Working Age Payment, based on a means test and an assessment of work capacity and support to participate in the labour market.

Recommendation 19

Government should implement the recommendations of the Comprehensive Employment Strategy for People with Disabilities including (i) ensuring that young people with disabilities receive effective career planning at an early stage in their education (ii) a cohesive approach to ensure the effective transition from school to further and higher education and (iii) deeper engagement with employers to encourage the provision of work experience.

Recommendation 20

The NSS should reflect international best practice in developing a set of proposals to address the issues of longer working lives.

Recommendation 21

The Department of Jobs Enterprise and Employment should extend the instant family unification facility to a broader range of employment permits. The Department of Justice and Equality should also deliver the promised online booking system for making appointments with the Irish Naturalisation and Immigration Service.

Recommendation 22

DES should explore the possibility of establishing an international secondary school to meet the requirements of the expatriate business community. This could be achieved through a public private partnership.

Recommendation 23

The Government should ensure that we are building at least 30,000 new homes each year to meet increased accommodation demands driven by population growth in urban areas and increased household formation.

Recommendation 24

Government should reduce the top rate of tax by a minimum of 1% per annum for all workers over the next five years and ensure that no worker, irrespective of income level, has to pay more than half of marginal income to the State.

Recommendation 25

The Government should develop and fully implement a new affordable childcare strategy by 2020, achieving an equal split between child benefit payments and childcare services. Child benefit should no longer be a universal payment and should be replaced by a two-tier child income support system. The resulting savings should be used to evaluate and improve the Early Childhood Care and Education scheme.

Recommendation 26

All National Training Fund supported training with a significant work-based element – including Apprenticeships, Traineeships, Skillnets, Momentum and Springboard – should be managed through an expanded Skillnets organisation. The range of programmes with a significant work-based element that are funded at higher and further education should be expanded.

Recommendation 27

The NSS should reinforce the requirement for a talent pipeline to support the objectives of the recently published Innovation 2020 research strategy. This should include structured career progression routes outside academia for researchers.

Recommendation 28

The NSS should recommend a new accredited internship scheme focused on improving the employability of young people and the long-term unemployed. To incentivise engagement, under this new scheme, employers should be given the facility to provide a top-up to social welfare payments. Such a facility should be carefully structured to ensure no unintended consequences around taxation and social welfare payments.

Recommendation 29

DES should respond to, and implement, the recommendations in the Ibec document 'Entrepreneurial Education'

Recommendation 30

Government should implement the recommendations of its 'Management Development in Ireland' report

Introduction

‘Our ambition is that Ireland will be internationally renowned for its talent, for its highly skilled and adaptive people, equipped with higher order capabilities required in the 21st century workplace and for its openness to continuous learning’¹

The recent Government strategy document, **Enterprise 2025**, sets out a vision for developing and attracting talent for the 21st century. This focus on the critical role that talent and skills will play in delivering a balanced, growing and prosperous society is welcome. It also provides a useful context for the proposed National Skills Strategy (NSS) which will provide a crucial framework for understanding and providing coherent responses to the evolving skills requirements.

The Department of Education and Skills (DES) consultation paper on the proposed NSS usefully captures the main policy developments and initiatives that have been introduced in recent years. However the sheer volume of activity outlined described in the document also points to the main challenge in delivering on this ambition. The paper outlines over 40 high level education and labour market reform initiatives, each with its own deep layers of complexity in terms of objectives and possible delivery structures.

DES, the lead government department on the skills agenda, is at the centre of a system comprising 15 national agencies, 4,009 schools, 19 regional training centres, 39 state-funded higher education institutions, a range of private providers and a budget of €8.6bn. Two other government departments, the Department of Social Protection (DSP) and the Department of Enterprise, Jobs and Innovation (DEJI), each with their own networks of agencies and divisions, also have critical roles in the skills agenda.

Enterprise 2025 suggests a ‘systems approach’ to create networks, address coordination failures, develop institutions and align strategic priorities. The rhetoric may sound convincing but the reality of developing a coherent skills strategy which can be effectively implemented by such a vast and diverse range of actors poses significant challenges. In the past, there has been no shortage of policy recommendations but strategy. Implementation has been less effective.

International experience suggests that many education and skills reforms fail to deliver because they have little effect on what happens inside the classroom, training centre or lecture hall. US commentator Larry Cuban suggests that they have a similar effect to that of a storm on the ocean: ‘The surface is agitated and turbulent, while the ocean floor is calm and serene (if a bit murky). Policy churns dramatically, creating the appearance of major changes ... while deep below the surface, life goes on largely uninterrupted.’ It should also be recognised that there is an inevitable tendency for education practices at all levels to develop their own dynamic, independent of the world of work and unresponsive to changes in the needs of the economy.

In highlighting these challenges, Ibec also recognises that many worthwhile reforms are in train, including the development of a network of engaged higher education institutions (HEIs) and mechanisms to ensure alignment of further education and training (FET) with local, regional and national skills demand. There has also been a number of innovative activation responses to the recent unemployment crisis. However most of the fundamental reforms are at a very early stage and face significant implementation challenges.

Successful reform plans are designed as much for the implementers—that is, the teachers, trainers, school and college principals and higher education leaders—as they are for the planners themselves. Unless there is a sense of widespread ownership they can appear to be an endless stream of *ad hoc* initiatives. To avoid this, it is timely to consider whether we have sufficiently clear, connected and robust structures, processes and measures to underpin the quality and quantity of relevant skills that are needed to deliver on our ambitions.

As suggested by the DES consultation paper, the OECD framework of determining how to develop the relevant skills, activate the skills supply and ensure effective use of skills provides a useful reference point. Unless otherwise stated, all references to the OECD refer to the document ‘*Better Skills, Better Jobs, and Better Lives*’ (2012)²

¹ Enterprise 2020 - <https://www.djei.ie/en/Publications/Enterprise-2025.html>

² <https://skills.oecd.org/documents/OECDSkillsStrategyFINALENG.pdf>

Developing relevant skills

The OECD suggests that the key policy lessons on developing relevant skills include using information about changing skills, linking the world of learning to the world of work, ensuring that education and training programmes are of high quality and maintaining a long-term perspective.

What skills are ‘relevant’?

The first question posed by the DES consultation paper is ‘What do you consider to be relevant skills for development in the period to 2025?’ This seemingly straightforward question begs a number of related questions around how skills are defined and to whom they might be ‘relevant’. It also fails to recognise that significant parts of the ‘education system does not see itself in the ‘skills’ business.

Clearly, the education system fulfils a vital role in society that extends well beyond the utilitarian one of satisfying enterprise needs for skills or research. Education institutions are obviously a vital public good, making a crucial contribution to the intellectual, cultural, social and economic well-being of the country. However, we should not view the requirement for workplace skills and the cultivation of the intellect as some zero sum game.

This somewhat ‘phoney’ debate about the ‘intrinsic’ versus the ‘utilitarian’ value of education or the ‘work-readiness’ of graduates continues to be heard, particularly in higher education. The perceived tension between the economic and social value of education, between the relative importance of programmes with strong labour market outcomes and community education also emerged in consultations on the Further Education and Training Strategy.

To address this issue, we need to look to the longer term and what the future of work will mean for our economy, society, how we live and how we will work. The archetypal worker in an advanced economy used to be a man on a production line or a ‘salary-man’ in an office. There are still millions of these but the new world of work is both more exciting and less secure. There is greater variety, in both pay and conditions. A job is more likely to be part-time, temporary, freelance or self-employed. It may not be a job at all, in the way it used to be defined. The jobs that will be available and the skills they demand, we have not yet imagined.

So young people, and indeed adult workers, are facing into a highly uncertain and constantly changing future. That is why a capacity and appetite for continuous learning is the attribute that will enable them to thrive, and fulfil their potential as workers and citizens. Inculcating this is the single greatest challenge the education system at all levels.

Therefore, the objective of the NSS should be to equip students to enjoy rewarding employment and fulfilling lives in a future environment whose demands we can neither anticipate nor predict. But we should also remember that the capacities to think critically, judge numbers, communicate (in writing and verbally) and observe carefully — the capacities that education can and should develop — will be as useful in the future environment as they are today. The very intellectual attributes that are associated with a liberal education, for example, are the same as those that are essential for innovation. Business may have a less elegant language around these attributes — ‘employability’ ‘competences’ or ‘thinking outside the box’ — but they reflect fundamental principles and values of learning.

However there is an onus on education institutions to provide their students with an understanding of their knowledge, skills and attributes in terms of the value that they can bring to prospective employers. This is particularly important for graduates from less vocational disciplines

These skills should not be regarded to inimical to education values. They include thinking skills such as logical and analytical reasoning, problem solving and intellectual curiosity; effective communication skills, teamwork skills, and capacities to identify, access and manage knowledge and information; personal attributes such as imagination, creativity and intellectual rigour; and values such as ethical practice, persistence, integrity and tolerance.

This can be a challenge. There has been a proliferation of attempts to set out discrete list of generic attributes and employability skills. While much commonality is evident in these various lists, there is also significant diversity. Despite the aura of tangibility provided by codified descriptive lists, much of these supposed generic attributes can appear intangible and elusive. However the NSS should reflect the useful research, particularly in

the UK, in this area. For example, the Higher Education Academy in Pedagogy for Employability³ examines the emergence of new models for employability and its impacts on curriculum across departments. At an earlier stage in the education cycle, the new Irish Junior Cycle, with its emphasis on innovation, resilience and 'learning to how to learn, provides a good example of how these aspirations can be translated into tangible learning outcomes..

STEM skills

Internet founder, Vincent Cerf, has described STEM education as the 'fuel for 21st century innovation and development'. Notwithstanding the importance of valuing all academic disciplines for the reasons outlined above, expertise in STEM subjects is necessary to drive our economic competitiveness and to provide the foundations for future prosperity. Knowledge-based economies, such as Ireland's, are particularly dependent on the quality and number of STEM graduates. It may be difficult to precisely predict the jobs of the future but we can be confident of an ever-increasing demand for science, technology and engineering skills. There is a global shortage of STEM skills and, given its industrial profile, Ireland has a particular imperative to attract and nurture this talent.

But there are other compelling reasons to prioritise science and technology subjects. Stimulating curiosity and fostering a sense of wonder are essential elements of educating our students from the earliest years. Science and Mathematics provide answers to the fundamental questions of nature and enable us to understand the world around us. The STEM disciplines enable us to understand, measure, design and advance our physical world. Modern democracies need scientifically-literate citizens in order to make well-informed decisions regarding major global issues such as climate change, sustainability, energy, and food security.

The Government's STEM Education Review Group was established in November 2013 with a view to carrying out a comprehensive review of STEM Education in Ireland and to making a set of recommendations that would address identifiable deficits and enhance its quality. Its findings have not been published

Language skills

The widespread use of English across the globe means that modern languages teaching is not a political priority, or indeed one that receives sufficient attention in the business community itself (beyond the growing number of, mainly multinational, companies with specific language requirements). This prevailing attitude will have grave economic, social and cultural consequences. Ireland needs more of its people to speak foreign languages – for employability, for trade and the economy and for our cultural life. The DES is due to publish a modern languages strategy. However the scope of the strategy is limited to post-primary and higher education, and excludes the role of the Irish language. Ibec has made a detailed submission⁴ arguing that this limitation will undermine its impact.

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³ Higher Education Academy in Pedagogy

⁴ See www.ibec.ie/0/languages

Develop an effective school career guidance service

High quality in-school career guidance is crucial in preparing young people for life beyond the classroom. Young people need to be well-informed when making education and career decisions. Career guidance helps students reflect on their ambitions, interests and abilities and make the right decisions about their future. This in turn prevents early leaving, delivers greater social equity, improves labour market outcomes and enhances the overall efficiency of education pathways.

Ireland's post-primary career guidance system is in need of reform. The Education Act (1998) considers post-primary career guidance to be a "universal entitlement" and requires that all "students have access to appropriate guidance to assist them in their education and career choices" (Section 9 (c)). However, Irish secondary schools do not have the necessary resources in-house to deliver a service of this scale and as a result career guidance provision is uneven. The removal of the ex-quota allocation for guidance provision in 2011 aggravated this situation

In Ireland, the guidance counsellor has to deal with personal and social guidance as well as educational and vocational guidance. According to the OECD⁵, in this situation "the educational and vocational guidance needs of all students tend to get squeezed by attention to the personal and social guidance needs of those few students with particular difficulties."

Recent ESRI research⁶ has raised issues regarding time constraints for guidance, particularly for personalised one-to-one discussion, the absence of information on options other than higher education, and the absence of information on future employment opportunities following on from third level education.

To address this challenge, the DES should work with business to develop a specialist careers advisory service to supplement current guidance provision. This external service should include a basic psychometric test and two one-to-one coaching sessions of approximately 30 minutes for all second level students each year. Our initial calculations suggest that this service could be delivered at a reasonable cost. However its success would depend on a systematic approach supported by a robust data system.

Recommendation 5

The DES should work with business to develop a contracted-in service to provide one-to-one advice on education options and careers to post-primary school students

Business-education engagement

Ireland, like many countries, faces the phenomenon of high-levels of long-term unemployment at the same time as businesses often report that they are unable to find suitably skilled candidates to fill job vacancies. This trend is now increasing with skill demands and shortages reported across a much wider range of occupations.

The OECD has argued that skills development is more effective if the world of learning and the world of work are linked. Learning in the workplace allows students to develop 'hard' skills on modern equipment and 'soft' skills such as teamwork, communication and negotiation, through real-world experience.

Employers, with close knowledge of their business needs and opportunities, are also well positioned to help identify where education and training policies and initiatives can narrow skills gaps. Co-operation among employers, policymakers and education institutions is therefore critical for strengthening the employability of individuals. Methods to improve co-operation can take different forms, such as providing incentives to education institutions to engage with employers, raising awareness among employers about education trends, and fostering joint initiatives to help develop work-based learning opportunities.

Local education partnerships do exist. There are examples of colleges exchanging information on the skills needs of the local labour market; employer involvement in the design and delivery of programs; and placement of students in local businesses. National programmes such as Momentum, Springboard, the ICT Skills Action Plan, and JobBridge have incentivised this activity.

⁵ <http://www.oecd.org/edu/innovation-education/careerguidancepolicyreviewhomepage.htm>

⁶ <https://www.esri.ie/publications/leaving-school-in-ireland-a-longitudinal-study-of-post-school-transitions/>

But they are not happening on a systematic basis and we are missing important opportunities. Many employers find it hard to engage with the education and training system. From the outside looking in, the system of providers, programmes and services on offer at times appears to be impenetrable.

The importance of business engagement has been acknowledged through a series of strategy documents from the Higher Education Authority (HEA), Qualifications and Quality Assurance Ireland (QQI) and Solas⁷. There are opportunities to put this engagement on a more systematic basis through initiatives such as the recently developed Higher Education Authority's (HEA) performance framework. Each institution has now entered a compact with the HEA, undertaking how it will contribute to national objectives from the position of its particular mission and strengths. The compacts provide for how performance is to be measured and a proportion of funding will, in future years, be contingent on performance. Enterprise engagement should be a key metric. The Further Education and Training (FET) Services Plans are at an earlier stage but should include similar metrics

There are particular opportunities in developing engagement at a regional and local level. Deepening links with Education and Training Boards, HEIs, employment services, and local communities, creating internships, strengthening recruitment and communication strategies, and improving vocational training and life-long learning opportunities are all methods which hold great potential for better jobs and inclusion at a regional level. The Government's decision to establish regional skills fora acknowledges this potential. However, the initiative is in its infancy and should be extended to all regions.

One of the most effective ways of improving enterprise engagement and delivering relevant skills is through apprenticeships. The Government's decision to extend the apprenticeship model and establish an Apprenticeship Council is welcome. The number of proposals for new apprenticeships received by the Council from consortia of business and education/training providers has been encouraging. This offers a unique opportunity to broaden apprenticeships in Ireland, meet the skill needs of industry and deliver real choice for young people and other learners as they move into and within the world of work. However, significant work remains to be done to develop proposals into sustainable apprenticeships and the process faces significant challenges in terms of institutional capacity.

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Employer engagement should be a key metric in the HEA performance compacts and FET service plans.

Recommendation 7

DES should extend the Regional Skills Forum model to all regions and put in place a three year funding envelope to put the new structures on a sustainable basis.

Recommendation 8

The Apprenticeship Council should publish a fully-costed three year implementation plan with timelines and targets to underpin a pipeline for introducing new apprenticeships.

Ensure that education and training programmes are of high quality

There are range of factors that have an impact on education quality but for the purpose of this submission we have highlighted just three critical elements

Teacher quality

McKinsey has suggested that "the quality of an education system cannot exceed the quality of its teachers"⁸. Recent developments across the education continuum in Ireland see a move away from the explicit specification of content towards a more generic, skill-based approach to discipline knowledge. As well as having more responsibility for what is taught, teachers are increasingly expected to teach knowledge and understanding. This can be a particular challenge, particularly in STEM subjects for Irish teachers who are more accustomed to teaching to terminal examinations.

⁷ www.heai.ie/sites/default/files/heaenterprisestrategy2015.pdf;
<http://www.qqi.ie/Pages/QQI-publishes-strategy-for-employer-engagement.aspx>
<http://www.solas.ie/docs/FETStrategy2014-2019.pdf>

⁸ McKinsey & Co (2010). How the world's best-performing school systems keep getting better, www.mckinsey.com

The lack of incentives in the Irish system for continuous professional development (CPD) is outlined by the OECD's Teaching and Learning International Survey⁹. Of those teachers receiving appraisal/feedback, less than one quarter reported that it resulted in a development plan to improve their teaching. The Department of Education's own Second Level Support Service (SLSS) also found that, "while the rhetoric of policy has adopted CPD as a core concept in the understanding of the teacher as professional, neither the term, or more importantly its meaning, have yet achieved purchase in the working lives of teachers. The SLSS is almost invariably seen as in-service support for the implementation of mandated change."¹⁰

Resources

The OECD argues strongly that it is important to maintain a long-term perspective on skills, even during economic crises. It suggests that if cuts to public spending have to be made, they should be based on the long-term cost/benefit ratios of alternative public investments. On these grounds, there is usually a strong case to be made for maintaining public investment in skills.

All levels of Irish education suffered during the crisis but higher education was particularly badly hit. The overall level of funding of the Higher Education Authority (HEA) for higher education institutions has been declining since 2007/08. Between 2008 and 2014 total funding per student decreased by 22%. The Expert Group on Future Funding for Higher Education has already warned that the quality of the undergraduate experience is under unprecedented pressure.

Given Ireland's high participation rates in higher education and the high public and private returns from completing tertiary education, action is needed in respect of both public and private investment. Ireland is one of only four OECD countries in which expenditure on tertiary education decreased since 2008 and one of only two countries where expenditure per student also fell. A commitment needs to be made to no further reductions in state expenditure, to introduce a sustainable student loan and fee system, and to increase public investment, particular in capital infrastructure.

Institutional autonomy

The challenges faced by HEIs require more flexible governance and funding systems which balance greater autonomy for the institution with accountability to all stakeholders. Autonomous institutions can specialise more easily, promoting educational and research performance and fostering diversification within the system. HEIs need the autonomy to set strategic direction, manage income streams, manage and reward performance to attract the best teaching and research staff. Given that 74% of the total education budget is attributed to fixed pay and pension costs, education leaders are extremely constrained without the HR levers that most private sector organisations take for granted.

Institutional autonomy for publicly funded educational institutions is not a licence to manage institutions without regard for public policy concerns but rather the freedom and flexibility to effectively use the public funds entrusted to the institutions for public policy purposes. The challenge for the DES is not to pull back the ability to manage but to set the outcome expectations and to link the desired outcomes to funding. This will stimulate the innovation and value for money which will be so vital to achieving better outcomes.

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The Teaching Council should complete its work on the National Framework for Teachers' Learning (Cosán) and work towards a model of teacher career development that encourages and rewards ambition and achievement.

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Government should introduce an effective student fee and loan system to underpin the sustainability of a high-quality higher education system. The case for an income contingent student loan system remains compelling on both economic and social grounds. This should be available to part-time and postgraduate students who are unfairly discriminated against under the current student contribution regime.

⁹ <http://www.erc.ie/?p=128>

¹⁰ <http://www.teachingcouncil.ie/en/Publications/Teacher-Education/Documents/Draft-Policy-on-the-Continuum-of-Teacher-Education.pdf>

Recommendation 12

DES should allow higher education systems to have greater flexibility and autonomy on resource allocations so that they can attract and retain world-class talent.

Part-time and flexible education

There is a compelling economic and social case for new initiatives to raise levels of education skills among adults in the wider population. A number of HEIs, in particular, have made themselves more accessible to part-time and off-campus students through increased use of learning technology and online learning. However, as the Expert Group on Future Funding for Higher Education has pointed out¹¹ ‘developments to date in the Irish system have been driven by bottom-up activities as opposed to sector-wide or institution-wide initiatives and haven’t reached the mainstream yet.’

Financial support continues to be by far the most significant issue that needs to be tackled in terms of successfully developing flexible provision¹². For example, with the exception of a number of recent labour market activation initiatives (e.g. Springboard), and support for some students from their employers, all part-time higher education systems in Ireland must pay full fees and other costs associated with their participation.

Recommendation 13

National and local targets should be set for part-time/flexible learning. The targets should be embedded as key metrics in the higher education performance compacts and the further education service plans.

Recommendation 14

Government should implement the recommendations of the HEA’s report on part-time and flexible education (2012) including the modification of a student funding model that does not distinguish between full and part-time students.

Skills mismatches

Basic and intermediate skills

Basic skills should be a priority. It is worth bearing in mind that that 14% of all jobs are currently held by workers who have completed less than secondary education and a further 24% by those who entered the labour market immediately after completing school. Many work in traditional industries and the large domestic service sectors such as retail, transport and personal care. Their level of earnings and security in employment are adversely affected by low levels of proficiency in basic skills.

Investing in the skills supply can help to transform the kinds of employment on offer, as employers can more easily recruit skilled workers who, in turn, improve the quality of the work. In order to support longer-term economic development, policy makers therefore have an interest in helping to increase the demand for skills. There is a need to “shape” demand, as opposed to merely respond to it.

It is also a mistake to assume that all the science and technology employment opportunities are just open to holders of advanced degrees. A large percentage of the workforce in these industries and occupations are technicians and others who enter and advance in their field through diplomas and certificates, or through workplace training. Recent National Skills Bulletins confirm a trend that we have seen in recent years with shortages reported for laboratory technicians in the food, pharmaceutical and biotechnology sectors, tool design and polymer technology technicians, electronic technicians and IT user support staff. There is also a demand for engineering and scientific expertise combined with the skills necessary for interaction with customers, suppliers, regulatory and funding bodies. Recent US projections claim that nearly one-third of job vacancies by 2018 will require some post-secondary qualification but less than a four-year degree¹³.

This has provoked questions about driving too many unprepared students into higher education or specific programmes for which they are either unsuited or for which there is no direct employment. There is also a

¹¹ <http://www.education.ie/en/The-Education-System/Higher-Education/Higher-Education-Optimising-Resources-in-Irish-Higher-Education-Discussion-Paper-2-.pdf>

¹² http://www.heai.ie/sites/default/files/part_time_report_0.pdf

¹³ <http://files.eric.ed.gov/fulltext/ED524310.pdf>

growing acceptance that we have neglected vocational education and undervalued professional education because of insufficient opportunity and prestige factors.

Integrating further and higher education

These developments have led to renewed attention on the differentiated roles of further education and higher education within a 'whole of education' approach in a post-secondary framework. The implications have been set out succinctly by Hazelkorn (2015)¹⁴

'While universities and colleges are a critical part of the puzzle, "there exists a less well understood world of colleges, diplomas, certificates and professional examinations— the world of post-secondary vocational education and training" which provides one or two years of career preparation. In some instances, these qualifications may lead to immediate employment or provide the stepping stone to further advanced qualifications. Whereas educational pathways were seen wholly as part of a widening access and educational progression agenda, it is now understood as part of a broader life-long learning (LLL) framework. Moving beyond an implied academic hierarchy, students of all ages may choose to combine theoretical and skills educational programmes in different ways and at different times.'

There are specific examples of integrated student pathways, particularly between some institutes of technology and further education colleges. However this has not been widely regarded as a strong strategic requirement.

Recommendation 15

The NSS should develop a series of specific proposals to make the continuum of tertiary provision, between higher and further education, more systematic. These should include specific measures to ensure that the Higher Education Authority and Solas collaborate more closely, and incentivised through joint funding programmes for upskilling. In the medium to longer term, this would improve efficiency in the use of resources and greater two-way flows between the sectors.

Gathering and using information and about changing skills demand

It is essential that we have appropriate structures in place to analyse labour market requirements and institutions are flexible and responsive to emerging needs, while also maintaining a long term perspective. The work of the Expert Group on Future Skills Needs and the Skills and Labour Market Research Unit in Solas plays an important role in informing programme development and mix of provision. However the diagram on page 56 of the NSS Consultation Paper shows that they are part of a very complex web of advisory bodies and initiatives spread across three government departments. This multiplicity of structures can lead to duplication of activity (particularly when the State is attempting to engage with enterprise) and disconnections within the system.

Recommendation 14

A single integrated national group should be established to gather information about changing skills demand to guide skills development. This should have a clear communication channel to the regional skills fora.

Measurement and targets

The last National Skills Strategy (2007) set a series of targets relating to progression up the National Framework of Qualifications. At one level, the results appear encouraging. The progression rate to third level increased from 55% to 69%, while there was also an 11% increase in the number of people in the labour force achieving qualifications at the higher levels of the NFQ. However they also illustrate the limitations of this data. These participation rates were partly driven by many people moving into, or staying in, education because of the lack of employment opportunities during the economic crisis.

The Graduate First Destination Survey, which has been running since 1982, provides useful information on first occupations of graduates, nine months after graduation. However, they have limited coverage of HEIs and, more critically, only capture a short period of time. Similarly employer satisfaction and student engagement surveys can suffer from unsatisfactory response rates (particularly amongst employers who are subjected to large numbers surveys, many of which have to be completed as a statutory obligation). Nevertheless they do offer some value in capturing satisfaction levels and perceptions.

The major gap in skills measurement is in the use of PPS-based administrative systems. More generally, the Government has acknowledge the possibilities of using data and technology to transform the way services are

¹⁴ http://www.heai.ie/sites/default/files/4th_heai_forward-look_forum_discussion_paper.pdf

planned, delivered and managed through the Open Data initiative (<http://www.per.gov.ie/en/open-data/>). The concept of Open Data is about making data held by public bodies available and easily accessible online for reuse and redistribution. For example, the Department of Social Protection has used data from the Revenue Commissioners and Solas to develop a Jobseekers Longitudinal Dataset which includes times spent in receipt of benefit, periods in training, commencement/cessation of employment and earnings.

Recommendation 16

Education and skills should be targeted as a domain for the first phase of the Open Data Strategy. As part of this the relevant government departments and agencies (DES, DSP, the Department of Expenditure and Public Reform and the Revenue Commissioners) should start to link citizens' education, employment and earnings data in order to develop a longitudinal data set on education and training outcomes.

Activating skills supply

The second theme in the OECD skills framework examines the policy levers that can be used to encourage people to offer their skills to the labour market. These include identifying inactive individuals and the reasons for their inactivity, creating financial incentives that make work pay, dismantling non-financial barriers to participation in the labour force, discouraging early retirement, and facilitating entry for skilled migrants.

Jobseekers

Since 2012, there have been significant reforms of the State's services to help unemployed jobseekers return to work under the Pathways to Work Strategy. These have included the rollout of the Intreo service, a single point of contact for all employment and income supports, client profiling, the introduction of the JobsPlus employment incentive scheme, a series of labour market activation programmes such as Springboard and Momentum and the contracting of placement services for the long-term unemployed under the JobPath programme.

As the economy starts to recover, it is appropriate to consolidate the reforms and ensure that they are resulting in a changed reality on the ground. The emphasis should shift to evaluation and identifying possible disconnections between public employment services and skills provision. For example, it remains unclear at what points and through which agency career guidance is provided. DSP has also created an employer services division to build effective relationships with employers. While this is welcome, it will also be competing for the attention of employers with local education and training providers and the JobPath contractors.

Despite the welcome modification of jobseeker payments, our social welfare system can still hold back employment. Now is the time to move to the Single Working Age Payment system, which had been deferred by the Oireachtas during the crisis. Quality jobs are being created and the social welfare system must not stand in the way of people taking advantage of employment opportunities. A simplified social welfare system would result in all people of a working age having sufficient income and opportunity to play a full part in economic and social life. This will successfully tackle the potential legacy of structural long term unemployment and social marginalisation.

Recommendation 17

DES and the DSP should develop protocols to ensure that clients are receiving the most appropriate career advice and their regional offices are engaging with employers in a cohesive manner. DSP divisional managers and/or employer case managers should engage fully with the Regional Skills Fora

Recommendation 18

DSP should rationalise the current social welfare benefits (e.g. carer's allowance, one parent family payment) into a Single Working Age Payment, based on a means test and an assessment of work capacity and support to participate in the labour market.

People with disabilities

The National Disability Authority indicates that on average, people with disabilities have lower skills and qualifications than the population generally and are only half as likely to be in employment as others of working age. These areas are clearly linked.

The Government recently published a Comprehensive Employment Strategy for People with Disabilities 2015¹⁵ around the themes of building skills, capacity and independence; providing bridges and supports into work; making work pay; promoting job retention and re-entry to work; providing co-ordinated and seamless support; and engaging employers. The Strategy has emphasised the importance of ensuring employment and career planning is being considered by young people with disabilities from an early age, rather than leaving it to the final years of post-primary school. This is essential to promote positive expectations of education, training and employment as real options.

There also needs to be greater coherence in the assessment and provision of supports across different levels of education. The national access initiatives that have focused on facilitating access for students with special education needs to higher education have resulted in positive outcomes in the increase in the proportion of students with disabilities entering universities and institutes of technology. Support structures are less well

¹⁵[http://www.justice.ie/en/JELR/Pages/Comprehensive_Employment_Strategy_for_People_with_Disabilities_\(2015_2024\)](http://www.justice.ie/en/JELR/Pages/Comprehensive_Employment_Strategy_for_People_with_Disabilities_(2015_2024))

developed in the FET sector, a deficiency which the Further Education and Training Strategy¹⁶ is seeking to address.

Recommendation 19

Government should implement the recommendations of the Comprehensive Employment Strategy for People with Disabilities including (i) ensuring that young people with disabilities receive effective career planning at an early stage in their education (ii) a cohesive approach to ensure the effective transition from school to further and higher education and (iii) deeper engagement with employers to encourage the provision of work experience.

Older workers

In Ireland, population ageing is expected to be rapid, albeit accelerating later than in most other OECD countries. While Ireland currently has the highest old-age support ratio in the EU27, projections suggest that in 2050 Ireland could rank 7th. The number of people aged 60 years or over today is 781,000 in Ireland, accounting for roughly 17% of the total population. These figures are expected to more than double by 2050, when this group could account for 29% of the population.

The age of eligibility for the State pension increased to 66 in January 2014. This was the first of three changes which will raise the qualification age for the pension to 67 in 2021 and to 68 in 2028. Meanwhile, private sector pension coverage in Ireland is relatively low. According to the OECD, only 41.3% of workers were enrolled in a funded pension plan in 2009. In addition, this varies dramatically across different sectors and types of workers.

The implications of an ageing population extend to a broad range of policy areas including employment law, welfare, pensions, health and social care. However it also has specific implications for the NSS. Fewer older people engage in work-based training and they are less likely to voluntarily change jobs than younger workers. This can leave those who find themselves out of a job at a disadvantage. A focus on training, development and active career planning is crucial to ensure older workers have the skills to remain competitive in the jobs market.

Recommendation 20

The NSS should reflect international best practice in developing a set of proposals to address the issues of longer working lives.

Skilled migrants and returning Irish emigrants

The 2015 National Skills Bulletin indicated that the IT sector accounted for 43 per cent of all new employment permits issued in 2014, with a further quarter issued in respect of workers in the healthcare sector. Approximately 69% of new employment permits issued in 2014 were to professionals, illustrating the link between identified skills needs and Ireland's employment permit system. This indicates that non-EEA nationals working in Ireland tend to be highly skilled

In Ireland the employment permit system has allowed for an improved response to emerging skill shortages and an ongoing response where the number of graduates remains below the number needed. The continued economic recovery may mean that shortages will be observed in greater number and in more occupations and sectors. In this context, the effective identification of labour shortages and the incorporation of this information to labour migration policy are important. Recent ESRI research¹⁷ indicates that significant improvements have been made in this regard in Ireland and that the employment permit system is increasingly linked to information on labour shortages and surpluses.

However instant family reunification is only available to third country researchers and holders of the Critical Skills employment permit as an incentive to relocate to Ireland. This facility should be extended to other high skill permits.

The Department of Justice and Equality should also deliver the promised online booking system for making appointments with the Irish Naturalisation and Immigration Service. The unnecessary delays and overall customer service affect Ireland's reputation as a place to live and work. It adds significant costs to employers of skilled migrants and to those individuals in terms of lost work days, leave and potentially loss of income.

¹⁶ <http://www.solas.ie/docs/FETStrategy2014-2019.pdf>

¹⁷ <https://www.esri.ie/pubs/RS49.pdf>

The availability of an international school offering the widely recognised International Baccalaureate curriculum and the flexibility to accept students at different stages of the academic year is an often overlooked aspect of attracting international executive talent. There are few options in Ireland, particularly at a secondary school level.

It should also be recognised that broader policy challenges such as housing, taxation and childcare have an impact on Ireland's attraction to both skilled migrants and our ability to encourage Irish emigrants to return home. These include housing, childcare and taxation.

For example we need an increase in the supply of affordable and quality housing to meet a constantly growing demand. An adequate supply of housing would remove one of the biggest constraints on our ability to attract skilled labour into the country.

An affordable childcare strategy would also make Ireland more attractive. At 53.5% of the average wage, childcare costs are the highest in the EU. Government spends €2.2 billion every year on direct family payments. Better targeting of this expenditure would provide a more effective national childcare scheme and implementing this overall strategy would be cost neutral.

The personal income tax burden in Ireland for skilled workers is now much higher than most of our competitors. The tax system is making it difficult for companies to attract and retain talent, or incentivise staff to take on overtime or additional duties. Tax reform should be targeted at areas where we are out of line with international competitors.

Recommendation 21

The Department of Jobs Enterprise and Employment should extend the instant family unification facility to a broader range of employment permits. The Department of Justice and Equality should also deliver the promised online booking system for making appointments with the Irish Naturalisation and Immigration Service.

Recommendation 22

DES should explore the possibility of establishing an international secondary school to meet the requirements of the expatriate business community. This could be achieved through a public private partnership.

Recommendation 23

The Government should ensure that we are building at least 30,000 new homes each year to meet increased accommodation demands driven by population growth in urban areas and increased household formation.

Recommendation 24

The Government should reduce the top rate of tax by a minimum of 1% per annum for all workers over the next five years and ensure that no worker, irrespective of income level, has to pay more than half of marginal income to the State.

Recommendation 25

The Government should develop and fully implement a new affordable childcare strategy by 2020, achieving an equal split between child benefit payments and childcare services. Child benefit should no longer be a universal payment and should be replaced by a two-tier child income support system. The resulting savings should be used to evaluate and improve the Early Childhood Care and Education scheme.

Putting skills to effective use

The third theme in the OECD skills framework examines the policy levers that can be used to create a better match between people's skills and the requirements of their job and increasing the demand for high-level skills. Our recommendations address the resources and structures required to deliver enterprise-led training, an upgraded internship model, linking skills to enterprise and research strategies, developing entrepreneurial education and supporting SMEs to engage in training.

Enterprise-led training

In 2016, the National Training Fund (NTF) will amount to €362m. Despite the fact that NTF is collected through an employer levy (0.7% of payroll) just one third of the fund will be used for employee training. Given the scale of the unemployment challenge, the diversion of NTF fund allocations to labour market activation during the economic crisis was understandable. However, we have reached a stage where a rebalancing of the NTF allocation to in-employment training is urgently required. The unemployment rate remains unacceptably high but the recovery momentum is having a significant impact on employment creation. We now need to focus on the sustainability of existing employment by improving competitiveness through upskilling and reskilling.

As mentioned above, the current system of education/training providers, programmes and service on offer can appear impenetrable to many employers. To be effective, NTF resources should be concentrated on schemes where the world of learning and the world of work are closely linked. The enterprise-led training model based on robust training needs analysis, business requirements, curricula designed in collaboration with employers and work-based training is more likely to be successful. It will also stimulate ongoing demand for upskilling and thereby help to meet the Enterprise 2025 target of doubling investment in training for employees.

The Skillnets programme, based on a business- government co-financing model, has been one of the most cost effective examples of stimulating enterprise- led training, despite the fact that the programme's in-employment funding stands at just 45% of its 2008 level. We have now reached a juncture where the potential of this model should be used to drive work-based learning.

Recommendation 26

All NTF funded training with a significant work-based element – including Apprenticeships, Traineeships, Skillnets, Momentum and Springboard – should be managed through an expanded Skillnets organisation. A wider range of skills-related training programmes at higher and further education should be funded through the NTF.

Linking skills to enterprise and research strategies

Talented people are at the heart of all innovation. Therefore, the NSS must emphasise the connection between human capital and skills development, and the country's ability to conduct world-class research and become an innovation leader.

In this context, the strategy should specifically support the requirement for a talent pool to deliver the Innovation 2020 Strategy. It should recognise that at the heart of any innovation ecosystem is a high-quality education and training pipeline that is dynamic and responsive. The availability and quality of research graduates is essential if Ireland is to develop its attractiveness as a location for R&D investment. For example, plans to develop and advance manufacturing facility will have a significant downstream impact in terms of encouraging young people into careers in manufacturing and providing them with the requisite skill

Recommendation 27

The NSS should support the requirement for a talent pipeline to support the objectives of the recently published Innovation 2020 research strategy. This should include structured career progression routes outside academia for researchers.

A new internship model

Since its launch in July 2011, the national internship programme (JobBridge) has provided over 42,000 unemployed people with quality work experience. A quantitative evaluation of the programme in May 2013 indicated that 89% of interns acquired new skills and 61% of interns moved to paid employment within five months of completing their internship - the highest rate in Europe for comparable schemes. Administratively

efficient, the programme has successfully engaged over 17,900 companies throughout the country (SMEs in particular). However, the economic conditions have now changed and a new approach is needed to build on the success and strengths of this programme.

In this context, the Government's decision to evaluate the suitability, effectiveness and relevance of the Programme is welcome development. While it is important not to second-guess the outcome of the evaluation and accept that any modification to the scheme should be based on solid evidence, the programme clearly still has an important role to play. Government should build on its success through further modification. Recent Ibec research indicates that over three quarters (77%) of its members that have used JobBridge rate it as either 'effective' or 'very effective'

Recommendation 28

The NSS should recommend a new accredited internship scheme focused on improving the employability of young people and the long-term unemployed. To incentivise engagement, under this new scheme, employers should be given the facility to provide a top-up to social welfare payments. Such a facility should be carefully structured to ensure no unintended consequences around taxation and social welfare payments.

Entrepreneurial education

A well thought-out entrepreneurial education policy will maximise the potential of young people to develop the next generation of innovative products, services and processes. The education system has a critical influence in shaping entrepreneurial attributes from an early age. In order to secure educators' commitment to do this, we need to redefine entrepreneurship in a way that does not undermine educational values. Entrepreneurship should not be viewed solely from "an economic perspective" as it has applications for society and culture.

Young people who benefit from entrepreneurial learning develop latent business knowledge and essential skills including creativity, initiative, tenacity, teamwork, understanding of risk, a sense of responsibility and social resilience. These are the high level skills necessary for all commercial and social endeavours which make young people more employable and entrepreneurial.

In a detailed policy document on Entrepreneurial Education¹⁸ Ibec has made 16 recommendations (see Appendix A) which we believe could help to embed promote entrepreneurial learning at all education levels, provide professional development and opportunities for educators to encourage entrepreneurial thinking, inspire the student to participate in entrepreneurial activities and encourage business and civic society to engage on this issue.

Recommendation 29

DES should respond to and implement the recommendations in the Ibec document 'Entrepreneurial Education'

Supporting SMES to engage in training

There are three significant issues to address in supporting SMEs to engage in training: (i) creating an appetite amongst small firms for upskilling *per se* and (ii) the challenge of engaging with education and training providers, agencies etc. (iii) cost

The starting point is convincing owner managers of the value of investing in their own training and that of their senior team. These challenges are discussed in the 'Management Development in Ireland' report¹⁹ which identifies a number of possible barriers such as bureaucracy, awareness/information, relevance of programmes, potential for staff being poached and geography/regional access. The most cited barriers are time and cost. However, the report concludes: 'The research suggests that neither time constraints, nor the cost of programmes are straightforward barriers to management development. Rather, it appears that managers undertake a mental 'cost-benefit' analysis of programmes; weighing up the potential benefits of engaging in a programme, against the admission fee and the cost of being away from their work.'

¹⁸ http://www.ibec.ie/IBEC/DFB.nsf/vPages/Education_and_training~Policy_positions~entrepreneurial-education-20-08-2015?OpenDocument#.VmMYXzZOeM9

¹⁹ <https://www.djei.ie/en/Publications/Publication-files/Forf%C3%A1s/Management-Development-in-Ireland.pdf>

To meet the needs of diverse learners with diverse schedules, it is important that a range of programme delivery methods are offered. This will offer benefits in terms of costs and flexibility of access, but will also require significant preparation in advance by those delivering the programmes. As important is the flexibility around when courses are delivered and examined – it does not always suit to have strict adherence to an academic year and so flexibility is also required in this regard.

Given Ireland's business structure which is comprised of a relatively large number of very small employers, engagement is also particular challenge when encouraging SMEs to engage in training. For example, 21% of private sector employment is provided by firms with less than 10 employees, 11% by firms with 10-19 employees and 13% by firms with 20-49 employees. This challenge will be met if the recommendations for an expanded enterprise-led upskilling model (outlined above) and effective regional engagement structures are implemented

Recommendation 30

Government should implement the recommendations of its 'Management Development in Ireland' report

Appendix 1

Recommendations from Ibec document: ***Entrepreneurial education: Policy recommendations to deliver the skills needed for the workplace of the future***

Recommendation 1: Department of Education and Skills to lead the embedding of entrepreneurial skills in education policy, with support from relevant government departments and in consultation with key stakeholders and partners. This should be central to the new National Skills Strategy which is currently under development.

Recommendation 2: The development of entrepreneurial learning outcomes should be a key metric in the system performance frameworks of the further and higher education sectors.

Recommendation 3: The Department of Education and Skills should continue to implement Junior Cycle reform and ensure that it is properly resourced to meet its objectives.

Recommendation 4: The National Council for Curriculum and Assessment (NCCA) and Quality and Qualifications Ireland (QQI) should ensure that future curricula modification includes a strong practical component and the development of key skills at the appropriate education level.

Recommendation 5: Transferable and entrepreneurial skills should be embedded in the learning environment, curriculum and assessment of all Government supported apprenticeship programmes.

Recommendation 6: The Department of Education and Skills Teacher Education Section, Professional Development Service for Teachers and the Teaching Council should ensure that entrepreneurial education is embedded in all teacher training programmes - from entry to initial teacher education programmes, induction of newly qualified teaching and the continuing professional development of teachers throughout their careers
Recommendation

Recommendation 7: The Department of Education and Skills should work with state agencies, including Science Foundation Ireland (SFI) and Local Enterprise Offices to develop an entrepreneurial education network with a single web portal. Recommendation

Recommendation 8: The National Forum for the Enhancement of Teaching and Learning should ensure that entrepreneurial education pedagogy is at the centre of its new professional development framework.

Recommendation 9: The Department of Education and Skills Inspectorate should ensure entrepreneurial learning outcomes are embedded and measured through school self-evaluation inspection reports.

Recommendation 10: Higher level institutions should reward and accredit students who participate in extra curricular entrepreneurial projects.

Recommendation 11: The Department of Education and Skills should introduce a new unified National Entrepreneurial Award - at primary and post-primary levels. In addition companies who have worked effectively with schools to develop entrepreneurial education should be acknowledged in these awards. All related awards should feed into this programme.

Recommendation 12: The Department of Education and Skills should develop a national framework to facilitate the expansion of business "adopt a school" type programmes, which are currently promoted in the ICT Skills Action Plan and proposed in some Regional Action Plans for Jobs, to incorporate other career options and entrepreneurial education initiatives. Recommendation

Recommendation 13: The Department of Education and Skills in collaboration with stakeholders should develop guidelines for industry on how to support entrepreneurial education activities and how their resources can be valued within the education sector to ensure a consistent approach to industry engagement.

Recommendation 14: Dedicated Department of Education and Skills funding should be ring-fenced to support effective entrepreneurial education projects at all levels of the education system.

Recommendation 15: Department of Enterprise, Jobs and Innovation should expedite the roll-out of the measures contained in the National Policy Statement on Entrepreneurship and 2015 Action Plan for Jobs and its regional plans to support a strong entrepreneurial culture and ecosystem. Recommendation

Recommendation 16: The new Strategy for Science, Technology and Innovation should incorporate an entrepreneurial education element in all programmes to ensure that the innovative capacity of all research programmes is harnessed to develop commercially successful outcomes.

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