

Executive Summary

Context

The objectives of this study are to:

- Identify the skills required for Ireland to make the transition to a competitive, innovation-driven, knowledge-based, participative and inclusive economy by 2020;
- Provide projections of the labour force's skills profile required to make the transition to such an economy and compare that profile to that which current projected output will yield; and
- Provide training and education objectives where gaps and deficiencies are evident between the desirable situation and the likely supply.

Skills and human capital development have played a very significant role in productivity increases, economic growth and improvements in living standards in Ireland. Human capital development will continue to play a key role in economic growth into the future, therefore sustained and enhanced investment in the educational and training infrastructure is essential to our economic and social development over the medium term.

Changing Skills Needs

- The trends in the changing profile of sectors that we have seen in recent years, in common with most developed countries, will continue for the foreseeable future. By 2020, the services and high value added manufacturing sectors will have increased in relative importance, while traditional manufacturing and agriculture will continue to decline. This shift to services will pose a significant productivity challenge for policymakers and for enterprise alike.
- At occupational level, the greatest increases in employment are expected to occur in the 'professional', 'associate professional' and 'personal & service' occupational groupings.
- Employees in all jobs will be increasingly required to acquire a range of generic and transferable skills including people-related and conceptual/thinking skills. Work will be less routine, with a requirement for flexibility, continuous learning, and individual initiative and judgement.
- The Enterprise Strategy Group emphasised the importance of R&D, innovation and marketing skills. All occupations will become more knowledge-intensive, resulting in many cases in a rise in the requirement for qualifications and technical knowledge.
- Science, Engineering, ICT and R&D skills are an integral part of a knowledge-based economy and their promotion remains important.



Investment in Education and Training

- Participation in education and training has an unambiguously positive impact on earnings for employees, firms and the economy in general.
- However, due to a lack of recognition of this positive impact, or due to other obstacles, employees and firms do not always participate in education and training to their full potential. This failure justifies state intervention in the market for education and training.
- This intervention is particularly justified in primary and post-primary education and in education and training of certain target groups, such as the low-skilled and marginalised, who without this intervention would not receive education or training.

Supply and Demand for Skills to 2020

The labour force is projected to grow to about 2.4 million by 2020. Approximately 1.4 million of the current workforce will still be in the labour force in 2020. An additional 640,000 young people will come into the labour force from the formal education system. The remaining additional 310,000 will be made up of immigration and increased participation by the existing population.

Table A.1 below (Column 1) shows the 2005 skills (educational attainment is used as a proxy for skills) profile for Ireland. OECD comparisons of this profile with that of other OECD countries are unfavourable. In 2004, only 6 out of 27 OECD countries had a worse performance than Ireland in terms of the percentage of the labour force who had only attained up to lower secondary qualification.

If we simply extrapolate current provision and demographic trends to 2020 and do not add to training and education output, the educational attainment of the labour force will have improved. This baseline 'no policy change' scenario is set out in Column 2, Table A.1. However, it is important to remember that our main trading competitors will also have improved their educational profiles and that if Ireland is to compete effectively, it will need to build competitive advantage in the area of skills.

Comparing these baseline 'no policy change' educational attainment projections (Column 2) with projected demand in 2020 (Column 3), leads to the conclusion that by 2020 there will be:

- A slight shortage at National Framework of Qualifications (NFQ) levels 8 to 10*;
- A significant shortage at NFQ levels 6 & 7; and
- Surpluses at NFQ levels 1-5 with the possibility that a large number of low-skilled individuals will be unable to find suitable employment.

In addition, Ireland's ambition should not be to simply meet projected skills demand based on an extrapolation of current observed trends. If Ireland is to develop competitive advantage in world class skills, education and training, and transition to a knowledge economy in which skills drive innovation, productivity, and entrepreneurial activity, it requires a skills profile which substantially changes the equilibrium – skewed towards higher levels of skills attainment. Such a profile is set out in Column 5, table A.1. The challenge for Ireland is to move from the baseline 'no policy change' scenario set out in Column 2 to the vision of a skills profile for the new knowledge economy set out in Column 5.

* The National Framework of Qualifications is explained in Section 4.0 and is illustrated in Appendix J.

Table A.1 Skills Profile of Ireland's Labour Force – Absolute and Relative Share Grouped by NFQ level

NFQ Level	Column 1	Column 2	Column 3	Column 4	Column 5
	Current Skills Profile (2005)	Baseline Skills Profile in 2020 based on 'no policy change' to Supply	Baseline Projected Demand for Skills in 2020	Unmet Skills Needs (Column 3 less Column 2)	Vision of Skills Profile for 'New Knowledge Economy' in 2020
Levels 8-10	20% 393,000	28% 667,000	29% 681,000	14,000	32% 776,000
Levels 6-7	12% 223,100	10% 233,000	16% 372,000	139,000	16% 385,000
Levels 4-5	40% 773,600	44% 1,051,000	38% 894,000	(157,000)	45% 1,090,000
Levels 1-3	28% 539,500	18% 450,000	17% 390,000	(60,000)	7% 180,000
Total	100% 1,929,200	100% 2,401,000	100% 2,337,000	–	100% (2,431,000)

This requirement to enhance the skill level of the working population presents a substantial challenge as Ireland's participation rate in continuous learning (non-formal learning) is relatively poor. Only 14 percent of 25-64 year olds in Ireland engaged in non-formal learning in 2002, compared with 16.5 percent in the EU25 and 34.5 percent in the UK.

Ireland also ranks poorly in terms of adult literacy but evidence suggests that literacy among young people has improved in recent years.

Significant gender imbalances are apparent across all strata of Irish education, training and employment and addressing these imbalances could contribute considerably to the alleviation of the projected skills shortages.

Vision

The Expert Group proposes a vision of Ireland in 2020 in which a well-educated and highly skilled population contributes optimally to a competitive, innovation-driven, knowledge-based, participative and inclusive economy.

Specific Objectives

Specifically, the Expert Group concludes that if Ireland is to realise this vision of a new knowledge economy which can compete effectively in the global market place, it requires enhancing the skills of the resident population, increasing participation in the workforce, and continuing to attract highly skilled migrants. Specifically, the Expert Group proposes that, by 2020:

- 48 percent of the labour force should have qualifications at NFQ Levels 6 to 10;
- 45 percent should have qualifications at NFQ levels 4 and 5; and
- The remaining 7 percent will have qualifications at NFQ levels 1 to 3 but should aspire to achieve skills at higher levels.



Achieving the Proposed Objectives

In order to achieve these objectives, action is required at a number of levels:

- An additional 500,000 individuals within the workforce will need to progress by at least an NFQ level.
 - Specifically, there is a need to upskill 70,000 persons from NFQ levels 1 & 2 to level 3, 260,000 up to levels 4 & 5 and 170,000 to levels 6 to 10. The cost of the proposed upskilling to levels 3, 4 and 5 is estimated over a thirteen year period at €153 million per annum.
 - The cost of the additional upskilling to the higher levels (6-10) is estimated over a thirteen year period at €304 million per annum. These costs reflect tuition costs which should be apportioned between the State, employers and individuals.
- The proportion of the population aged 20-24 with NFQ level 4 or 5 awards should be increased to 94 percent, either through completion of the Leaving Certificate or through equivalent, more vocationally oriented programmes. The retention rate at Leaving Certificate should reach 90 percent by 2020.
- The progression rate to third level education will have to increase from 55 percent to 72 percent.

Issues to be Addressed

The upskilling of 500,000 persons already in the labour force is a significant challenge. This is particularly true of those at the lower skill levels i.e. those with below level 5 qualifications, who find it difficult to access training and education opportunities, in some instances receive little support from their employers and many of whom have low levels of literacy. Employees, also may experience practical barriers in attending courses or may lack the confidence or knowledge to seek appropriate training. Equally, employers and employees sometimes do not recognise the value of training. Additionally, employers may find it difficult to release employees to attend training.

The existing arrangement of programmes, schemes and grant aid is not sufficient to deliver the target skills profile set out above. If it is to be achieved, a number of new innovative initiatives need to be taken which will foster a culture of continuous life-long learning. The Expert Group has not been prescriptive in relation to the type of exact provision required, however it has provided some overarching guidance.

Develop Skills for Economic Growth

Government, in particular through the Department of Enterprise, Trade & Employment (DETE), and the Department of Education & Science (DES) should, through their commitment to a National Skills Strategy, develop and implement a comprehensive set of policies and actions to provide the skills required for economic and social development.

Implement a One-Step-Up Approach

A major effort will be required to increase the number of employed persons benefitting from the *One-Step-Up* programme. An implementation mechanism under the auspices of DETE and DES should be put in place to coordinate the activities of all stakeholders. A *One-Step-Up* approach needs to involve a wide range of providers including universities, institutes of technology, vocational education committees, Skillsnet, FÁS and other development agencies and education providers.

The initiative should be communicated clearly to all key stakeholders, and should incorporate the following key elements:

- Systematic identification of the needs of individuals and enterprises;
- Flexible and responsive training provision;
- A high profile National Media Awareness Campaign;
- An accreditation/quality assurance system; and
- Adequate funding.

Target the Low Skilled and Educationally Disadvantaged

As a general principle, individuals who do not currently hold a qualification equivalent to NFQ Level 4 or 5 (Leaving Certificate equivalent) should be assisted to achieve such an award, through either full- or part-time study, without incurring tuition costs and with a level of subsistence, provided by the State, for full-time study where appropriate.

The State should continue to support and, where necessary, increase funding initiatives targeted at addressing educational disadvantage, the second-level retention rate and low literacy levels.

Integrate Migrant Workers

The system for recognition of international awards should be reviewed to ensure that it is meeting its objectives and that the facility is widely communicated to employers and international employees. Procedures to identify those migrants who most need English-language training are also required. The provision of this training needs to be extended, with a distinction being maintained between adult literacy and migrant English-language proficiency. Finally, a strategy is required to ensure that migrants integrate into the formal education and training system at all levels, and that specifically, migrant children are successfully integrated into the Irish education system at primary and secondary level.

Basic Skills

Basic skills such as literacy, numeracy and the use of technology should be prioritised and embedded into all publicly funded education and training provision in so far as possible. Literacy is a basic foundation skill and the Expert Group notes the recommendations of the report *Adult Literacy in Ireland (2006)*. Mathematics is fundamentally important to the educational and economic well-being of the country. For this reason the review process at second level needs to be expedited and prioritised, and once completed should be accorded immediate consideration by all relevant stakeholders. Furthermore, the success of the revised primary mathematics curriculum needs to be evaluated and any positive lessons built upon at second level ensuring continuity for the learner. Given the importance of mathematics, a strategic approach to its development needs to be adopted.

Issues to be Examined

There are a number of issues which remain to be addressed and will require further investigation in order to:

- Increase employer commitment to education and training; and
- Increase and incentivise employee commitment to education and training.



These include:

- How best to assist employers, especially in the SME sector, in identifying training needs for their staff which will benefit their firms: The level of demand for training and education is not commensurate with the perceived need for it. One of the reasons is that individuals and businesses are not aware of their skills shortcomings. In order to engage with individuals and firms and meet their needs, individuals and enterprise need to be able to assess their strengths and weaknesses from a skills perspective. Enterprise agencies (FÁS and Enterprise Ireland) and representative organisations and Skillnets should continue to assist companies in identifying the training needs of their employees. Brokerage systems to help companies identify their needs and source training are being used elsewhere. The opportunities presented by such systems should be further investigated.
- How best to ensure that publicly-funded education and training is appropriate for enterprise development: There is a need to develop ways of capturing data on skills needs at a regional and sectoral level and feeding it back to education and training providers. This would give employers and the enterprise sector greater ownership of their own training programmes. The role of skills advisory bodies in facilitating this process should be further investigated.
- How to achieve flexible and responsive provision: The provision of education and training courses should reflect the needs of individuals and enterprise. This would foster improved linkages between the education system and enterprise, as already recommended by the Enterprise Strategy Group. The accelerating pace of change at all levels within the economy, and particularly in relation to skills, necessitates flexible and responsive provision. There must, therefore, be genuine dialogue between publicly funded education and training providers and those seeking learning. The provision of workplace based training which is fitted around working hours needs to be actively promoted.
- How to structure schemes aimed at incentivising employer and employee involvement in education and training: The Expert Group have not undertaken a detailed analysis of the funding mechanisms that are required to stimulate participation by employers and employees in life long learning and that would best fit the requirements of the Irish context. The Expert Group has formed a tentative view that the most effective way to ensure flexible and responsive provision of training may be to empower individuals and enterprises through funding, rather than through direct support for providers. Such mechanisms require further research and analysis. An immediate examination of mechanisms adopted elsewhere to encourage participation in continual learning, such as Individual Learning Accounts (ILAs), paid learning leave and co-financing, should be conducted and the results then used to guide policy.
- The Expert Group have previously recommended the provision of strong career guidance support for those in the workplace including the use of better on-line skills assessment tools. Approaches are outlined in *Careers and Labour Market Information in Ireland Report 2006*.

Integrated Government Policy

In order to meet the skills needs of the Irish economy as set out in this report, it will require coherent policy spanning several government departments. In particular it will continue to require an integrated policy approach between the DES and the DETE and an implementation mechanism which coordinates the activities of all relevant stakeholders.

Policy initiatives should be 'learner' and 'enterprise' centric rather than being developed from the perspective of education or training providers. This approach would be demonstrated by adopting agreed national objectives, increased co-operation between both departments and their agencies, and co-funding of initiatives. In relation to *One-Step-Up*, an integrated policy approach would also be enhanced if an implementation mechanism under the auspices of DETE and DES was put in place to coordinate the activities of all stakeholders.

Implementation

DETE and DES should agree a mechanism to monitor and report on the implementation of the National Skills Strategy. Consideration should be given to publishing a report on an annual basis detailing progress.

Challenges and Opportunities

The Expert Group's vision of Ireland in 2020 in which a well educated and highly skilled population contributes optimally to a competitive, innovation-driven, knowledge-based, participative and inclusive economy requires that significant challenges are met by Government, enterprise and individuals. The rewards for meeting these challenges are great. The costs of not meeting these challenges are equally high.

Ireland now possesses an opportunity to determine the shape of its economy going forward. A highly skilled, well educated population will drive productivity, innovation and entrepreneurship and increase living standards for all. The consequences of inaction will be a labour force that does not meet the needs of future industry much less act as a driving force in shaping that industry.

The objectives that the Expert Group has outlined to achieve its vision are ambitious. Significant upskilling of those in employment, increasing the leaving certificate retention rate and increasing progression to third and fourth level will require a sustained and coherent effort by all stakeholders. Ireland can learn from best international practice in relation to skills development while at the same time developing its own innovative policies which reflect the nuance of Ireland's particular stage of development.

World class skills, education and training can provide Ireland with a unique competitive advantage which will allow us to remain ahead of the curve economically, while improving living standards in a participative and truly inclusive society.