

The Expert Group on Future Skills Needs Activity Statement 2016

September 2017



Foreword

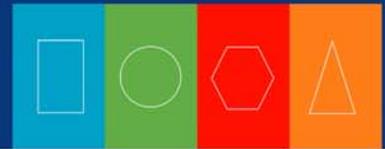
Ireland's ability to compete in international markets, as well as its ability to attract foreign direct investment and to improve the competitiveness of its regions will result in an increased demand for skilled labour. Providing the appropriate skillsets to the current and future workforce to support their employability and the sustainability of our enterprise base is also vital. Therefore skills forecasting has never been more important in ensuring that Ireland is ready to meet the demands of a constantly changing business environment.

The Expert Group on Future Skills Needs (EGFSN) is an independent, non-statutory body, which includes representatives from the business community, education and training providers, trade unions, and a small number of Government Departments and agencies (DES, DBEI, EI, IDA, SOLAS, HEA). The EGFSN plays a key role in identifying current and future skills needs of enterprises, advising the Irish Government on these needs. This Activity Report provides a summary of the work of the EGFSN in 2016, and outlines some of the main areas which the Group is addressing in 2017.

The National Skills Strategy 2025 was published by Government in January 2016 and marked an important milestone in addressing the skills needs of the economy and of society. The National Skills Strategy 2025, and the Action Plan for Education 2016-2019, provided for the establishment of the National Skills Council (NSC) as a key part of a new national skills infrastructure. The NSC will oversee research and provide advice on the prioritisation of identified skills needs and how to secure the delivery of identified needs. The Expert Group will work closely with the National Skills Council through the provision of research and analysis on the future skills needs of the enterprise sector.

In 2016, the EGFSN conducted a review of the supply and demand of the skills required to meet the needs of the BioPharma sector, including a profiling of current provision. The report recommended actions required to address identified gaps in skills provision and to improve the alignment between the skills needs of the industry and the training provision. Between expansion demand in Biologics manufacturing and replacement demand for the Biopharma Industry, it is anticipated that there will be 8,400 potential job openings over the next five years. The recommendations in the report comprise an Action Plan for addressing the skills and talent needs of the Biopharma Industry up to 2020.

The EGFSN completed research into the skills needs in the Hospitality sector in 2015 and one of the recommendations of the published report was the setting up of a National Oversight and Advisory Group comprising all key hospitality stakeholders. In March 2016, a Hospitality Skills Oversight Group was established, and was chaired for the first year by SOLAS. Members are drawn from representative bodies from the Hospitality sector, Government Departments and agencies, the education sector and employer bodies. A lot of progress was made in 2016 to progress the recommendations contained in the Report.



During 2016, the EGFSN also continued to monitor trends in supply and demand through its annual labour market reports produced by the Skills and Labour Market Research Unit (SLMRU) in SOLAS: *National Skills Bulletin 2016*, *Monitoring Ireland's Skills Supply 2016*, *Vacancy Overview 2015* and *Regional Labour Markets Bulletin 2016*. The *National Skills Bulletin* provides an analysis of employment trends at occupational level. The 2015 edition of the report indicates that shortages are intensifying in areas such as ICT, engineering, sales/customer care, logistics, health, finance; while skills shortages are emerging in areas such as hospitality and construction.

There is a growing demand for labour market information that goes beyond national level. 2015 and 2016 saw the publication by the Government of a series of Regional Action Plans for Jobs at NUTS III level (Border, Dublin, Mid East, Mid-West, Midland, South East, South West and West), each of which places an emphasis on skills enhancement and labour market activation in the region. The Dublin Regional Action Plan was the last to be published in January 2016.

The Department of Education and Skills concluded the establishment of Regional Skills Fora in 2016. The annual *Regional Labour Markets Bulletin* which is compiled by the SLMRU can make a valuable contribution to informing the skills agenda at regional level. The 2016 Bulletin showed improvements in the labour market situation in most regions, but also identified variations in skills supply and demand across the regions.

As in previous years, the EGFSN provided the *Guidance for Higher Education Providers on Current and Future Skills Needs of Enterprise* for the Springboard+ 2016 Call. A key objective of Springboard is to enhance collaboration between the enterprise sector and education providers in the design and delivery of programmes for job seekers in areas required by enterprises.

This report also outlines some of the areas that the EGFSN is addressing in 2017. These include an initial assessment of the possible skills implications arising from Brexit, the skills required to deliver early years' education and care, future demand for high-level ICT skills, the impact of the digital economy and the development of design thinking within organisations.

Finally, I would like to thank the members of the Expert Group on Future Skills Needs for their continued commitment to the work of the Group, the Department of Education and Skills for their ongoing support, and the Secretariat teams in both the Department of Business, Enterprise and Innovation and the Skills and Labour Market Research Unit in SOLAS for the research and analysis work that they provide to the group.

Tony Donohoe

Chair of the Expert Group on Future Skills Needs



Introduction

The Expert Group on Future Skills Needs (EGFSN) has the task of advising Government on future skills requirements and associated labour market issues that impact on enterprise development and employment growth.

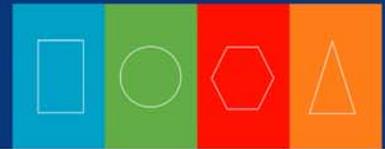
Specifically, the EGFSN:

- Carries out research, analysis and horizon scanning in relation to emerging skills requirements at thematic and sectoral levels. Steering Groups comprising of experts from relevant enterprise sectors and the education and training sector may oversee sectoral research studies to be undertaken or commissioned by the EGFSN. Drawing on statistical input and analysis from the SLMRU and consultation with the enterprise/education experts as part of the study, draft reports setting out the projected needs are prepared by the EGFSN.
- Engages with the HEA, SOLAS, QQI, the Regional Education Fora, education and training providers in the course of its research.
- Engages with DES, HEA, SOLAS and other relevant bodies to produce agreed action plans to address the skills needs identified.
- Submits the findings of its research and agreed Action Plans to the National Skills Council prior to publication.
- Disseminates its findings to the Regional Skills Fora and other relevant groups.

Research and Analysis Resources

The research, analysis and administration support to the EGFSN is provided by the Department of Business, Enterprise and Innovation.

EGFSN work undertaken by the Department of Business, Enterprise and Innovation is part-funded from the National Training Fund (NTF), through the Department of Education and Skills. In 2016, €278,044 was spent from the NTF towards the cost of this work.



Members of the Expert Group on Future Skills Needs

Ms Una Halligan*	Chairperson - to end 2016.
Mr Tony Donohoe	Chairperson - Head of Education, Social and Innovation Policy, IBEC appointed 2017
Mr. Peter Baldwin	Assistant Secretary, Department of Education and Skills - to end May 2017
Mr. Ray Bowe	IDA Ireland
Mr. Mark Christal	Manager, Client Development, Mentoring and Skills, Enterprise Ireland
Mr. Kevin Daly	Principal Officer, Skills and Education Unit, Department of Business, Enterprise and Innovation (also EGFSN Head of Secretariat)
Dr. Bryan Fields	Director, Research and FET Strategy and Programme Evaluation, SOLAS
Ms Kathleen Gavin	Principal Officer, Department of Education and Skills
Mr. Declan Hughes	Assistant Secretary, Department of Business, Enterprise and Innovation
Mr John McGrath	SOLAS
Dr. Vivienne Patterson	Higher Education Authority
Dr. Peter Rigney	Industrial Officer, ICTU
Mr. Bill Doherty	Executive Vice President, EMEA, Cook Medical - to end 2016
Dr. Brendan Murphy	President, Cork Institute of Technology - to end 2016
Ms. Inez Bailey	Director, National Adult Literacy Agency - to end 2016
Mr. Joe Hogan	Founder, Chief Technology Officer & VP Openet Labs & IP Management - to end 2016
Mr. John Burke	Principal Officer, Department of Public Expenditure and Reform - end 2016
Ms. Liz Carroll	Training and Development Manager, ISME - to end 2016
Ms. Margaret Cox	Managing Director, I.C.E. Group -to end 2016
Mr. Ned Costello	Chief Executive, Irish Universities Association -to end 2016
Mr. Paul Healy	CEO, Skillnets -to end 2016

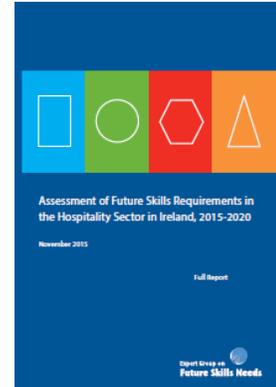


1. EGFSN Research and Analysis in 2016

Assessment of Future Skills Requirements in the Hospitality Sector in Ireland - Oversight Group established in 2016.

The Hospitality sector plays an important role in the Irish economy, as evidenced by the fact that businesses in the sector collectively employ an estimated 158,000 individuals in over 16,000 enterprises. This represents over 8% of economy-wide employment, with the sector contributing €3 billion gross value added to the economy.

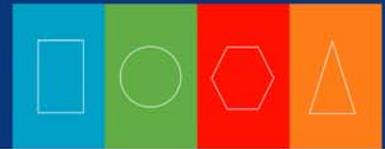
A report by the Expert Group on Future Skills Needs into the future Skill Needs of the Hospitality sector in Ireland was completed in November 2015. The objective of this study by the EGFSN was to assess the skills demand needs arising within the Hospitality sector in Ireland - hotels, restaurants, bars, canteens and catering - over the period to 2020. The aim is to ensure that there will be the right supply of skills to help drive domestic hospitality sector business and employment growth. A main recommendation of the report was for the setting up of a National Oversight and Advisory Group comprising all the key hospitality stakeholders.



A Hospitality Skills Oversight Group was established in March 2016, and is chaired for the first year by SOLAS. Members include the Restaurant Association of Ireland, Irish Hotel Federation, Irish Hospitality Institute, Licenced Vintners Association, Vintners Federation of Ireland, Fáilte Ireland, Department of Business, Enterprise and Innovation, Department of Education and Skills, Department of Social Protection, Higher Education Authority, Skillnets, SOLAS, Education and Training Boards Ireland, Technological Higher Education Association, Regional Skills Dublin and Quality and Qualifications Ireland. The Hospitality Skills Group has met several times since it was established in March 2016. Its role is to provide a forum for on-going collaboration in addressing the skills needs of the Hospitality Sector in Ireland, for example, by monitoring progress on the implementation of recommendations in the EGFSN report and coordinating regular reviews of hospitality education and training provision.

Skills for the Biopharma Sector

In 2016, the EGFSN conducted a review of the supply and demand of the skills required to meet the needs of the BioPharma sector, including a profiling of current provision. The report recommended actions required to address any identified gaps in skills provision. The report was published in August 2016. The objective of the study was to review the supply of, and demand for, skills required to address the skill needs of the Biopharma industry in Ireland up to 2020. There is a specific focus on Biologics manufacturing which is a growing sector of the industry with its own particular skill needs. The aim is to ensure that the right skills are available to drive business and employment growth and help graduates and job seekers fill potential job openings. The availability of skills and talent is seen by the industry as a key prerequisite in terms of future competitiveness, investment and employment.



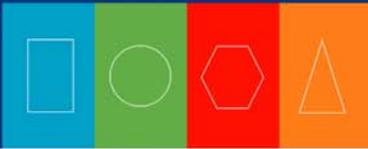
It is estimated that 27,300 people were employed in the Biopharma Industry in 2015. Of these, some 20,600 were engaged in Pharma "small molecule" manufacturing and related services while 6,700 were employed in "large molecule" Biologics manufacturing. There are a number of large sized companies within the industry with around 35 companies comprising 85% of total employment. The Biopharma industry exported products to the value of €30.2 billion in 2015 and contributed €1.7bn in payroll. It creates significant secondary employment in construction and other services while the investment in new plant construction is under way. The Biopharma industry is regionally based with main operations located in the South-West, Dublin, Mid-East, South-East and West regions.

It is anticipated that an additional 5,000 staff will be employed in Biologics manufacturing over the next five years, with Pharmaceutical activities (manufacturing and service related) employment remaining stable at around 20,600. Of the 5,000 increase in biologics manufacturing it is estimated that around 1,000 would be for roles such as facility maintenance, supply chain/logistics, human resources, finance, legal and warehousing. The remaining 4,000 roles would require more specific Biopharma science and engineering skillsets.

Between expansion demand in Biologics manufacturing and replacement demand for the Biopharma Industry, it is anticipated that there will be 8,400 potential job openings over the next five years. The study outlines how this level of total job openings can be met through a combination of increased graduate inflow and through job seekers upskilling provision on Springboard+/Skillnets training programmes. The industry may also continue to draw upon available experience in international talent.

This increased inflow of graduates is considered feasible given the relative scale of science, engineering, health, computing and business disciplines that the industry currently draws upon to fill available roles albeit that there is a need to ensure the improved alignment of biopharma programme provision including an increase in experiential learning and structured work experience placements.

The quality of the graduate output is just as important to ensure that it is aligned and relevant to industry needs especially for biologics manufacturing. There are also a sizeable number of job seekers with relevant qualifications that can be drawn upon for upskilling. The pace of change in Biopharma markets, technology and processes means that workforce skills need to be continually updated highlighting the importance of continuing professional development. The set of recommendations in the report comprise an Action Plan for addressing the skills and talent needs of the Biopharma Industry up to 2020. They are made in the context of this study's findings that the quantity of skills supply required to meet the needs of the Industry up to 2020 should be available. Recommendations that can be delivered in the short-term and have an immediate effect are important. Biopharmachem Ireland Skills Forum is driving the implementation of the recommendations of the report.



Skills for the Food and Drink Sector

A study was undertaken by the EGFSN in collaboration with the Department of Agriculture and Food on an update of the progress of recommendations made in the 2009 EGFSN Report on Skills Needs in the Food and Drink Sector. Twelve recommendations have arisen from the study, under four headings: 1) work-based learning; 2) internships and apprenticeships; 3) language and international selling; and 4) coordination. Apart from the impact of Brexit, which the Report refers to briefly, the research indicates that there are ongoing issues around numeracy and literacy at operational levels, along with tight margins, contributing to difficulties locating skilled staff in some sectors. Finding time for on-the-job training can be difficult for some companies.

Middle management remains an area where there is a development challenge. It is particularly difficult for SMEs, especially when they are quite small, to identify skill needs and training needs as due to size and management stretch, strategic management merges with operations and not enough time or attention is being paid to developing current managers into the leaders of the future.

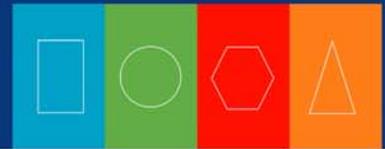
As in most areas, employers are continually looking to hire staff that are work-ready in terms of experience and are appropriately qualified. Internships and work placements are seen as important in this context. Similarly apprenticeships are viewed by employers as a good mechanism for ensuring that staff are appropriately skilled and trained. In addition, foreign languages and international selling skills and experience are becoming increasingly important as the sector seeks to diversify export markets and grow sales.

While there is a wide range of public support and training provision available to the sector, at the firm level they may need to engage with a number of organisations to ensure they can meet their full skills development needs, such as with apprenticeships, ETBs, Skillnets, EI, universities and institutes of technology. It is important therefore that the industry representative bodies and firms themselves work closely with a range of education and training bodies, such as through the Regional Skills Fora, to ensure the provision of a relevant and practical suite of programmes that will continue to support the industry into the future.

Skills for the Design Sector

Under the Government Action Plan for Jobs 2016, the EGFSN committed to undertake a scoping exercise on the nature of the design skills required across the economy to meet the future needs of enterprise in the traditionally non-design intensive sectors. There are currently a wide range of design specific and design related courses available in Ireland and the key issue is the extent to which the quantity and quality of graduate output is matching demand now and sufficiently adaptable to the future need of enterprise as design evolves. It is clear that design thinking is also changing the way businesses operate, including informing the strategies of major organisations.

A stakeholder validation workshop took place in Q4 of 2016 where the initial recommendations arising from the scoping exercise were debated and discussed. The report will be finalised in 2017 and will examine the nature of design, its evolution, its economic value and how firms can adopt



design strategically in order to foster their growth. It will look at design education provision, design training for businesses and designer upskilling; and funding for design.

National Skills Bulletin 2016 - referring to a comprehensive analysis of 2015 data

The National Skills Bulletin 2016 is produced by the Skills and Labour Market Research Unit (SLMRU) in SOLAS on behalf of the Expert Group on Future Skills Needs (EGFSN). It presents an overview of the Irish labour market at occupational level. The Bulletin aims to assist policy formulation in the areas of employment, education/training, immigration (particularly the sourcing of skills which are in short supply from the Irish and/or EEA labour market, as well as informing career guidance advisors, students and other individuals making career and educational choices. The Bulletin is based primarily on data held in the SLMRU's National Skills Database up to Q 4 2015.

Labour Market Overview

During 2015 there were further improvements in a number of labour market indicators:

- Employment increased by 50,000 (annual average)
- The employment rate increased by 1.6 percentage points to 63.3% (annual average)
- The unemployment level declined by almost 40,000 (annual average)
- The unemployment rate declined by 1.8 percentage points to 9.5% (annual average)
- The long term unemployment rate declined to 4.7% (quarter 4)
- The broad unemployment measure (combining unemployed and part-time underemployed persons) declined to 13.5% (quarter 4)
- The labour force increased by 10,400 (annual average)

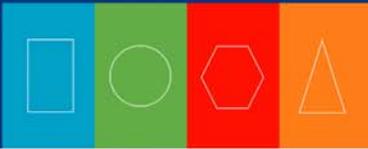
Between quarter 4 2014 and quarter 4 2015 the strongest employment growth was observed in the construction sector (8.5%); over this period, employment increased in all sectors excluding financial (where it declined) and education and agriculture (where it remained almost unchanged).

Skills shortages

During 2015, shortages were observed in an increasing number of occupations and sectors compared to recent years.

The skills in short supply chiefly related to experienced candidates (e.g. five years or more) and niche scientific areas typically associated with the pharmaceutical, biopharma and food innovation industries. In particular, there was a demand for scientists with experience in compliance, regulatory affairs and new product development.

Shortages of engineers, typically for roles in pharmaceutical and medical devices manufacturing, were identified. The demand relates largely to those with significant experience (at least five years) in industry specific settings. Shortages in the ICT, Business and Financial, Construction and in

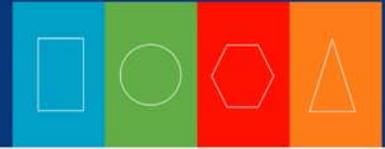


some hospitality sectors have been identified. A shortage of chefs continues to persist, although a recent increase in the training output and the proposed new apprenticeships are expected to alleviate the issue over the medium term.

Shortages also continue to persist for the following occupations: medical practitioners (especially locum and non-consultant hospital doctors, registrars and medical specialists (e.g. general and emergency medicine, anaesthetists, paediatricians, consultant radiologists), and advance nursing specialists. Shortages of skills relevant to supply chain management (transport) have also been identified.

During 2015, employers continued to source skills from outside the EEA. Over 6,000 new employment permits were issued in 2015, an increase of 25% on 2014. Increases in recent years are primarily attributed to a rise in new permits issued in the health and ICT sectors.

The ICT sector accounted for 44% of all new employment permits issued in 2015, with the health sector accounting for almost a third. In terms of occupations, professionals accounted for 75% of all new permits issued, for positions including IT developers, doctors, nurses, engineers and business analysts. The type of permit issued and the salary scale varied by occupation.



Monitoring Ireland's Skills Supply 2016

Monitoring Ireland's Skills Supply 2016 is produced by the Skills and Labour Market Research Unit in SOLAS on behalf of the Expert Group on Future Skills Needs. The report provides an overview of the skills profile of the population in terms of field and level of education. The profile shows the potential pool of skills available to work in different sectors of the economy.

Leaving Certificate

There were approximately 58,000 Leaving Certificate candidates in 2015, a 1.75% increase on 2014. There were over 53,500 sats in Leaving Certificate mathematics; of these, almost 14,700 (400 more than in 2014) sat the higher level paper. Despite the increase in participation, the share of Leaving Certificate students at higher level in mathematics is by far the lowest of all Leaving Certificate subjects. In 2015, almost 98% of all those who sat higher level mathematics obtained at least a grade D.

Post-secondary level

There were 32,300 QQI awards (NFQ 1-6) in 2015, a 2% rise on 2010. There were increases across most fields of learning, except engineering & construction, science & computing and social science, business and law (SSBL).

Third level

There were approximately 66,500 awards in 2014, an increase of 14% on 2010. There were increases across all fields of learning, except engineering and construction.

First Destination Survey (FDS) indicated that when compared with the previous year, the share of third level graduates in employment nine months after graduation was higher across almost all disciplines and levels.

Key findings

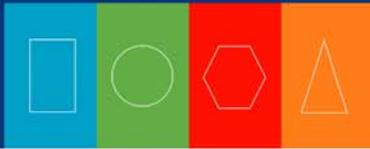
There were over 216,000 awards spanning levels 1-10 on the NFQ in 2015. For 25-29 year-olds in the population, the higher the level of education attainment, the greater the share employed and the smaller the share unemployed.

Regional Labour Markets Bulletin 2016

The Regional Labour Markets Bulletin 2016 was compiled by the Skills and Labour Market Research Unit in SOLAS on behalf of the Expert Group on Future Skills Needs. It provides an analysis of the key labour market indicators for each of Ireland's eight administrative regions: Border, Dublin, Mid-East, Midland, Mid-West, South-East, South-West, and West.

Comparisons between Regions

Labour force and participation: in quarter 4 2015,



- Dublin had the largest labour force of approximately 660,400 persons, while the Midland region had the smallest, where approximately 135,400 persons were participating in the labour market.
- Dublin had the highest participation rate of 63.2%; the Border region had the lowest participation rate of 56.5%; apart from Dublin, the Mid-East and the Midland region, all other regions had a rate of participation that was lower than that of the State.
- Year-on-year increases in the rate of participation were observed in the Border, Midland, and Dublin regions; in addition, these three regions, together with the South-East, reported increases over the five-year period quarter 4 2010 to quarter 4 2015.
- Over the period quarter 4 2014 to quarter 4 2015, year-on-year increases in employment were observed in the Midland, Border, Dublin, and South-West regions at a faster rate than the average for the State; employment remained static in the Mid-West and South-East regions; it contracted in the West and Mid-East regions.

Employment / Unemployment (Quarter 4 2015)

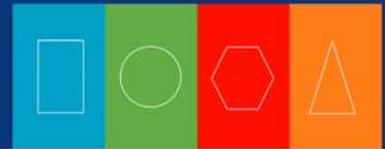
- In quarter 4 2015, the highest employment rate (for those aged 20-64) was in Dublin (72%), followed by the Mid-East region (71%) and the South-West region (68.8%); all other regions had a rate that was below 69%.

Education

- Of the total of approximately 8,300 awards (FET and HE combined), the largest numbers were in health/welfare (accounting for almost a quarter), followed by business & law.
- Of approximately 4,100 QQI/FET awards (NFQ 1-6), the largest share, almost a third of awards were in health/welfare; almost a fifth of awards were in business & law; agriculture and services each accounted for about one-in-ten of QQI/FET awards, while general learning amounted to almost one-in eight.
- Higher education awards at undergraduate level (totalling approximately 4,200) were mostly in business & law, health, and engineering & construction, accounting for 25%, 17%, and 15% respectively; 10% of higher education awards were in science & maths, and 8% were in ICT; the combined share of science & maths and ICT awards, of 18%, was the highest of all regions.

Enterprise

- There were 238,249 active enterprises in the private business economy in Ireland in 2014. Nationally, the highest numbers of active enterprises were in construction (20%), wholesale & retail (19%), and professional services (16%); the information & communication and manufacturing sectors each accounted for 6% of active enterprises, real estate activities for 5%, and financial & insurance activities for 3%. The Dublin region accounted for almost one third of all active enterprises in the State. It accounted for more than a half (53%) of enterprises active in the information & communication sector, for almost three fifths of all enterprises in financial & insurance activities, and for more than two fifths of enterprises in the professional, scientific & technical sector.



Live register

- In May 2016, there were approximately 307,100 persons on the Live Register in the State, 11% lower than observed in the previous year.
- Over the six-year period May 2010 to May 2016, the numbers on the Live Register peaked for most regions in July and August of 2011, while the lowest point was April 2016; the decline from the peak was most pronounced in the Mid-West and South-West regions (by 40% in each).



Vacancy Overview 2015

This report is produced annually by the Skills and Labour Market Research Unit (SLMRU) in SOLAS on behalf of the Expert Group on Future Skills Needs (EGFSN) in order to provide an overview of the demand for labour by identifying trends in advertised job vacancies. While previous Vacancy Overview reports were structured around occupational groups, this report examines vacancy trends in terms of sectors. New data sources have also been introduced including the examination of those recently hired and the CSO Job Vacancy rates. These new data sources, along with further analysis of existing data sources, allow for the examination of the extent to which vacancies are occurring due to expansion demand or churn.

The number of vacancies notified through the commercial IrishJobs.ie has been increasing steadily since 2013, with a 25% increase in the year since 2014. The professional, scientific and technical activities sector accounts for by far the largest share of vacancies notified to IrishJobs.ie and has shown high levels of growth in recent years. In 2015, on average 7,300 vacancies were advertised each month through the Department of Social Protection (DSP) Jobs Ireland website and 3,200 vacancies through the commercial IrishJobs.ie website; this represents an increase in notifications for both sources since 2014.

Occupations

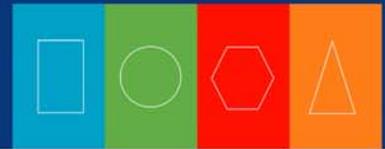
The largest numbers of DSP Jobs Ireland vacancy notifications in 2015 were for health and social work and admin services; the spike in notifications in admin services relates to the notification of positions for the 2016 census enumerators, whereas the increase in vacancies in health relates to nurses and care workers. There was also notable growth in other sectors such as industry (relating mainly to a growth in notifications for process operatives), and construction (increases in notifications for electricians, carpenters, drivers and elementary construction roles).

Language skills

For IrishJobs.ie most vacancies with languages occurred in the administrative and support service sector (mainly call centre activities) whilst for DSP Jobs Ireland these vacancies related primarily to the information and communications sector (e.g. tech support). German was the most frequently mentioned language requirement for both data sources followed by French, Italian, Spanish and Dutch.

Education / experience required

Where level of education was stated in Irishjobs.ie vacancies a third level qualification was the most frequent, accounting for at least 45% of notifications for vacancies in industry, IT and the professional activities sector. Over a quarter of vacancies notified for the wholesale and retail sector required no minimum level of education for roles such as sales representative and sales assistants.



For DSP Jobs Ireland notifications, there were high shares of vacancies which had no minimum levels of experience requirements in administrative services (e.g. census enumerators, cleaners, and security guards), education (related to tutors advertised by one company) and wholesale and retail (e.g. door to door salespersons, fundraisers, sales assistants). Over half of notifications for the construction and arts/recreation sectors required fully experienced individuals (e.g. skilled trades and hairdressers).

Difficult to fill vacancies

Along with the IT sector, the Financial, Insurance and Real Estate sector consistently had the highest vacancy rate across all sectors; in quarter 3 2015, this rate stood at 2.4%, compared to 1.0% for all sectors. The appearance of this sector in employment permit data and difficult to fill vacancies indicate that employers are still having issues with finding suitably qualified staff in some areas. Professional occupations (in IT, engineering, science, health, business and limited openings in construction) accounted for two thirds of all difficult to fill mentions, with a further 15% for associate professional occupations (including technicians and sales related).



Lifelong Learning among Adults in Ireland, Quarter 4 2015

In July 2016, the SLMRU in SOLAS published a short bulletin on behalf of the EGFSN on Lifelong Learning among adults in Ireland. The report, finds that the participation rate of adults in Ireland in Lifelong Learning lags behind the European average. In 2014, our participation rate of just under 7% was well below the EU average of almost 11%. Furthermore, the gap between Ireland's participation rate and the EU average widened between 2009 and 2014. More recent data from the CSO's Quarterly National Household Survey shows that in Quarter 4 of 2015, Ireland's participation in Lifelong Learning was 7.2%.

One of the EU education and training targets aims is for 15% of 25-64 year-olds to participate in lifelong learning by 2020. This paper is the first in a series which aims to monitor Ireland's progress towards this target by examining the number and share of persons aged 25-64 years who have engaged in lifelong learning activities. The National Skills Strategy, published in January 2016, recognises the importance of Lifelong Learning and includes a target of increasing the participation rate amongst adults to 10% in the medium-term.

Overview

Of the almost 2.5 million adults aged 25-64 in Ireland in quarter 4 2015, 177,300 were lifelong learning participants, giving a lifelong learning participation rate of 7.2%.¹ There were 116,700 participants in formal learning activities (education and training in the normal system of schools and educational institutions), giving a formal learning participation rate of 4.7%. There were 64,900 persons in non-formal learning activities (other organised and sustained learning which may or may not take place in an educational institution), giving a non-formal learning rate of 2.6%.

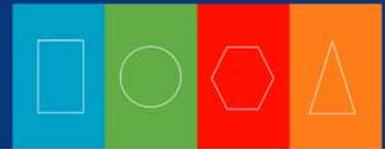
Profile of lifelong learning participant

Lifelong learning participation rates tended to decline with age but increase with greater educational attainment. 59% were third level graduates. More females partake in lifelong learning activities (8%) than males (6.3%), particularly in non-formal learning activities. Lifelong learning participants tend to be younger with more than half aged under 35.

Ireland's International ranking

Ireland's lifelong learning rate, at 7.2% in quarter 4 of 2015, is less than half the benchmark set by the EU under its Education and Training Framework (ET2020), which aims to have 15% of adults aged 25-64 engaging in lifelong learning by 2020.

¹ (note: a small number of adults participated in both formal and non-formal learning and therefore the total number of lifelong learning participants is less than the sum of the number of formal and non-formal learning)



2. Other Activities & Policy Inputs by the EGFSN in 2016

Guidance for Higher Education Providers on Current and Future Skills Needs of Enterprise - Springboard 2016

This report has been developed to provide guidance for providers tendering for higher education places for those eligible to participate on Springboard+ 2016 courses. It gathers together the most recently available data concerning higher education level skills needs for enterprise appropriate to Springboard+, and the Level 8 ICT skills conversion courses. It draws on data from reports published by the EGFSN and consultations with industry bodies and the enterprise development agencies (Enterprise Ireland and IDA Ireland).

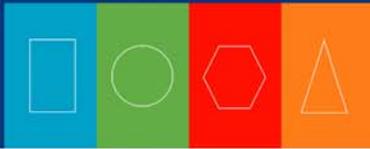
Engagement with Enterprise

Enterprise engagement is of pivotal importance to the progression of Springboard+ participants to employment. Springboard+'s objectives are as follows:

- 1 To help unemployed people to return to sustainable employment.
- 2 To enhance collaboration between enterprise and higher education to design and deliver relevant higher education courses that support job creation and expansion in line with the Government's Action Plans for Jobs.
- 3 To enhance the skills profile of the labour force to meet the targets and objectives of the national ICT skills Action Plan (2014); the 2016 Action Plan for Jobs and the National Skills Strategy (2016).

The skills needs of enterprise prioritised for the Springboard 2016+ Call were:

- 1 High-level ICT skills - for the ICT Sector and across all sectors
- 2 Big Data & Analytics skills
- 3 Skills for International Trading: Foreign Language Skills/Cultural Awareness, Global Sales and Marketing
- 4 Engineering Skills
- 5 Skills for the Manufacturing Sector
- 6 Skills for International Financial Services Sector
- 7 Skills for the Medical Device Sector
- 8 Skills for the Biopharma-Pharmachem Sector
- 9 Skills for the Food & Beverages Sector
- 10 Skills for the Construction Sector
- 11 Skills for the Freight Transport, Distribution and Logistics (FTDL) Sector
- 12 Skills for the Leisure, Tourism & Hospitality Sector
- 13 Cross Enterprise (transversal) Skills



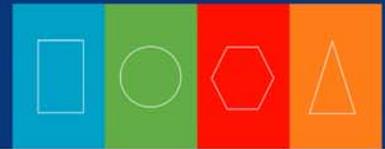
2016 Review of ICT Professional Skills Needs

DBEI EGFSN Secretariat inputted into the DES review of ICT Professional Skills needs and the step-up in demand. The paper provided a concise review of the demand and supply for High-Level ICT Skills in Ireland drawing upon recent available information from relevant Irish and EU sources. Overall, this review concludes that in terms of the domestic demand for ICT professionals Ireland has now moved nearer to the 7.2% cumulative annual average growth rate for ICT professionals projected by the Higher Growth Scenario of the EGFSN 2013 ICT Skills report compared to the 4.9% annual average growth rate under the Central Growth Scenario which is applied in the ICT Skills Action Plan - with the caveat that if our skills supply constraints are not addressed this may lead to this higher growth rate not being sustained. This paper proposes a series of new and reinforcing actions that could help to help boost the supply of high-level ICT skills in Ireland.

A quarterly and end-of-year analysis was undertaken of the 3,200 ICT related Employment Permits issued during 2016.

Input into Review of Employment Permit Change Proposals

The EGFSN Secretariat inputted into proposals from stakeholders received by the Employment Permits Section, DBEI, for changes to be made to criteria both for High Skilled Occupation List and the General Employment Permits List.



National Skills Database

The National Skills Database (NSD), developed and maintained by the Skills and Labour Market Research Unit (SLMRU) of SOLAS, collates all available information on the supply and demand of skills in Ireland. It represents an effective tool for timely analysis and forecasting of the labour market at sectoral and occupational level. Potential imbalances between the demand and supply of skills can be assessed using the wide range of indicators gathered in the NSD.

During 2016 the NSD was updated to include the latest statistics and information on the following:

- Employment
- Education and training output
- Immigrant labour force
- Notified job vacancies (for example: Irish Jobs.ie, JobsIreland.ie)
- Recruitment agency survey (SLMRU).

These data were used throughout the EGFSN sectoral and occupational reports in forecasts of future demand.

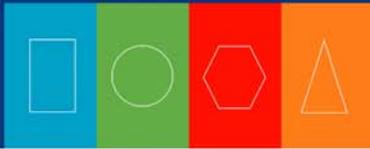
Dissemination of information on Future Skills Needs

During 2016, the EGFSN continued to engage with stakeholders to ensure that information on the skills needs of the economy was disseminated to relevant parties. The Chairperson and Secretariat made presentations on skills needs at various conferences and fora throughout the year.

In addition, the Group's work continues to be disseminated to guidance counsellors, students (secondary level, further education and training, and higher education), parents and teachers, through targeted websites such as CareersPortal, Qualifax and the Institute of Guidance Counsellors' website.

All reports published by the EGFSN are available on the website www.skillsireland.ie. Brief presentations, which provide an overview of key findings, are available alongside reports on the website. Printed reports are circulated to mailing list subscribers and an e-alerts system is also in place to electronically distribute the group's reports.

The Expert Group will continue to deepen its level of engagement with stakeholders in 2017 to highlight the nature and extent of the emerging skills needs of the economy.



3. Implementation of Recommendations in previous EGFSN Reports

Ongoing monitoring of progress on implementation of recommendations, including a review of sectoral studies after completion, is undertaken by the EGFSN. Sectoral reports are widely disseminated to stakeholders. Those identified with the responsibility of implementing the recommendations are invited to inform the EGFSN of progress on implementation six months after publication of the relevant report.

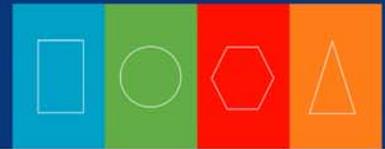
The Hospitality Skills Oversight Group has made progress in implementing the recommendations of the EGFSN Hospitality Skills Report as follows.

1 Promoting Careers in Hospitality

A structured National Promotion Campaign began in 2016 to promote careers in the Hospitality sector. This included the launch of the “Tourism Insight” and interactive free online programme - co founded through the Irish Hospitality Institute and developed by Institute of Technology Tralee. The Programme itself was formally launched in 2016 in partnership with the Irish Hospitality Institute, the Irish Hotels Federation, Fáilte Ireland, Institute of Technology Tralee and Regional skills Fora with other key industry businesses representing all aspects of the sector from hotels, catering, travel and tourism. The campaign also incorporates the Irish Hotel Federation “Get a Life” career guide and online app. In the beginning of 2017, an inaugural Regional Roadshow was hosted in the INEC, Kerry in collaboration of IHF, IHI, IT Tralee, Regional Skills, Cork IT and supported by Fáilte Ireland and industry businesses. The purpose of the roadshow, targeted at Transition Year students and teachers, was the link and engagement of businesses and colleges. The business link is an important aspect to create opportunity for work experience for students. Over 250 attended the first roadshow and it is intended to run this in Dublin, Galway, South East and Midlands.

2 Culinary Apprenticeship Development

The consortium examining this apprenticeship (which includes Fáilte Ireland, as well as the Restaurant Association Ireland, Irish Hotel Federation, Irish Hospitality Institute ETBs and other industry stakeholders) has submitted the proposed culinary apprenticeship programme to QQI seeking formal accreditation for the initial 2-year Commis Chef element. Once formal accreditation has been granted, the new apprenticeship can then be marketed, trainees can be recruited and the programme can commence. The intention is to start with a ‘proof of concept’ intake of 115 apprentices in seven centres. Then, within six to twelve months there will be a further intake of 385 apprentices. The intention is to reach a critical mass of 4,500 apprentices (comprising both 1st year apprentices & 2nd year apprentices) in training within four to five years. With the initial (commis chef) stage of the apprenticeship in place, the consortium will continue to progress the development and accreditation for progression through further stages of apprenticeship - i.e. chef de partie, sous chef and executive chef.



3 New Hospitality Skillnet Programme for Hospitality Sector

Skillnets approved a new Restaurant and Hospitality Skillnet in December 2016, which is promoted by the Restaurants Association of Ireland. The training plan was based on training needs and skills gaps identified by member companies to help drive employment growth, talent attraction and retention in the Hospitality sector, with a particular focus on career progression for those at lower skilled levels. The Restaurant and Hospitality Skillnet was formally launched by the Minister for Education and Skills in early March 2017. The Skillnets funding will enable the delivery of customised and mainly on-the-job training courses during 2017 to address the identified needs, which fall into two broad categories:

- Technical skills (e.g. culinary & barista skills)
- Professional skills (e.g. kitchen management, supervisory)

4 Traineeships

In 2015 a new Career Traineeship initiative was begun by SOLAS in collaboration with ETBs and enterprise to develop a more effective model of work-based learning, primarily at NFQ levels 4 and 5, incorporating best national and international research and practice. Networks of Employers have been created to facilitate partnerships between ETBs and employers in identifying training needs, designing the training programmes, recruitment of learners and delivery of the training on and off the job. The Career Traineeship model of work-based learning is currently being piloted with the Hospitality and Engineering sectors, with the involvement of seven ETBs.

5 Springboard + Hospitality Skills Programmes

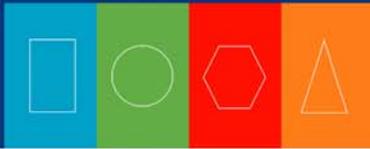
Over 70 places were provided on Hospitality related courses under Springboard+ 2015, in the areas of culinary skills and hospitality operations. Around 160 places were made available on Hospitality related courses under the Springboard+ programme which commenced in September 2016, mainly at Level 6. Additional Springboard+ Hospitality places for the upskilling/reskilling of unemployed persons were allocated in early 2017 - following full uptake of those already agreed.

6 New Junior Cycle Home Economics Programme

A draft of a new Junior Cycle Home Economics specification has been finalised. It was published on the NCCA website at the end of February 2017. There was a six week consultation phase. The syllabus has a strong emphasis on culinary skills and will retain the cookery examination component. The new Home Economics curriculum is scheduled to commence in September 2018.

7 Audit of Hospitality Related courses and Facilities in Further and Higher Education

Work is underway between SOLAS and HEA on an audit of courses and Facilities across further and higher education. The aim is to assess the scale of hospitality provision and to identify whether there are any gaps in provision that need to be addressed.



2017/18 Work Programme

The National Skills Council (NSC) was established in April 2017 and is chaired by the Minister for Education and Skills, Mr Richard Bruton T.D. The NSC was established arising out of the National Skills Strategy which identified that the overall architecture for identifying, prioritising and responding to skills needs should be refreshed. The NSC will oversee research and provide advice on the prioritisation of identified skills needs and how to secure the delivery of identified actions. The new skills infrastructure will ensure that the key elements of the EGFSN model of analysis and horizon scanning, with close engagement with enterprise will be maintained and further strengthened. The EGFSN will continue to present the findings of its sectoral studies to the National Skills Council and will make strategic recommendations to assist the NSC and policy makers to address emerging skills needs.

The NSC recently approved the Work Programme (2017 and 2018) for the EGFSN. The Work Programme is described in this chapter.

Addressing the Skills Needs for Ireland arising from the potential trade and regulatory implications of Brexit

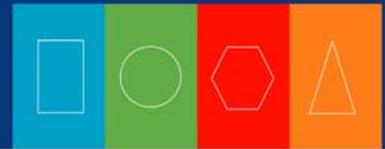
As a contribution towards preparing the Irish economy for Brexit, the EGFSN will be undertaking a piece of work examining the cross-sectoral skills needs arising from the potential trade and regulatory implications of the UK's departure from the EU. Against the background of the potential imposition of tariff barriers and regulatory divergence, this work will examine skills implications for the Irish economy in customs clearance, supply chain management, logistics, as well as expertise in trade law and tariffs, as well as skills relevant to international selling and sourcing.

It will seek to update elements of previous EGFSN reports, notably 2012's *Key Skills for Enterprise to Trade Internationally*, and 2015's *Addressing the Demand for Skills in the Freight Transport, Distribution and Logistics Sector in Ireland, 2015-2020*, for the new Brexit reality, and feed into the *Ireland Connected* trade strategy objectives of maintaining UK market share and facilitating export diversification, as well as minimising supply chain disruption. This work will begin in Q4 2017, with the timeline for completion early Q2 2018.

Skills for Design

Further to DJEI's 'Policy Framework for Design in Enterprise in Ireland' (Jan 2016), the EGFSN undertook a review in 2016 of the educational provision of Design Courses to determine their relevance to the needs of Irish industry and the extent to which they reflect the career opportunities that now exist for graduates in new and emerging areas and to put forward recommendations to ensure that the education provision meets the need of the design economy. A stakeholder validation workshop took place in Q4 of 2016 where the recommendations were debated and discussed.

Further to the stakeholder validation workshop in Q4 2016, the Design report was drafted in Q1 2017. The report outlined a number of recommendations with the objective of increasing awareness of design as a sector in Ireland and nurturing the growth of the sector in Ireland. Based on these



findings an action plan was drafted in Q2 to allow for the implementation of these recommendations. It is expected that by the end of Q3 these actions will be attributed actors to oversee their implementation and aid the growth of the sector. The report is expected to be finalised and published in Q1 2018.

Future Demand for ICT Practitioners in Ireland, 2017-2022

From Q4 of 2017 to Q1 of 2018 the EGFSN will be undertaking a forecast of the demand for ICT Practitioner skills over the period 2017 to 2022, both within the ICT sector and across other sectors of the economy. The forecast is a successor exercise to the Group's 2013 report, "Assessing Future Demand for High Level ICT Skills". This report adopted a Central or likeliest Growth Scenario of nearly 5%, in terms of the annual growth of demand for ICT practitioners. This provided the basis for the ICT Skills Action Plan 2014-2018. Indications are that the demand for ICT Practitioners skills is now growing stronger. It is therefore essential that a revised forecast is undertaken, so that the necessary actions can be put in place to ensure the required supply. This will be an essential input into the planned update of the National ICT Skills Action Plan.

Annual Skills and Labour Market reports

The Skills and Labour Market Research Unit in SOLAS will prepare a number of important annual reports on behalf of the National Skills Council in 2017. These will include:

- *Vacancy Overview 2016*, identifying skills for which there is currently a demand in the Irish labour market.)
- *National Skills Bulletin 2017*, outlining skills demand by occupation (mid-2016).
- *Monitoring Ireland's Skills Supply 2017*, providing a profile of trends in education and training output (mid-2016).
- *Regional Labour Markets Bulletin 2017* - providing an analysis of key labour market indicators for the 8 NUTS III regions (mid-2017).

Lifelong Learning

The Skills and Labour Market Research Unit in SOLAS will follow up its 2016 bulletin on Lifelong Learning amongst adults by examining the number and share of persons aged 25-64 years who have engaged in lifelong learning activities.

Workforce Plan for the Early Childhood Education and Care Sector

This project will examine the impact of a rapidly changing policy and practice landscape in the Early Childhood Education and Care sector in Ireland on future skills requirements so that Government can ensure that a high quality workforce is in place over the next decade. The expansion of state funding, the growth towards a model of universal provision, the regulatory and contractual qualification requirements and an increasing move towards professionalisation is impacting and will impact further on workforce development and profile in the coming years. Clear



challenges are already emerging in relation to the recruitment, attraction and retention of qualified staff into the workforce.

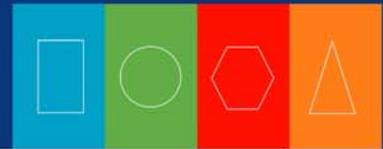
In 2010, the Department of Education and Skills (DES) published a Workforce Development Plan for the Early Childhood Care and Education Sector in Ireland². At that time, since the desired profile for the workforce in terms of qualification levels was not defined, or underpinned by any regulatory requirements, a comprehensive skills forecasting exercise was not carried out, although there was some involvement by Solas. This has now changed since the introduction and expansion of ECCE and other funding schemes and the publication of the Pre-school Regulations (2016). The workforce now stands at approximately 22,000 (Pobal 2016).

It is now considered timely that a comprehensive workforce planning exercise for the sector be conducted to ensure that the sector can meet the demands being placed on it towards 2030.

Skills for the Digital Economy

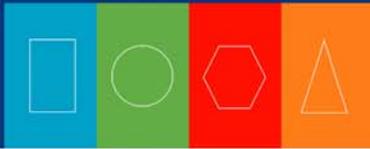
Research indicates that technology change will impact the primary, secondary and services sectors in the medium term, resulting in multiple re-skilling opportunities and requirements. It is reported that we are at the beginning of a Fourth Industrial Revolution with developments in genetics, artificial intelligence, robotics, nanotechnology, 3D printing and biotechnology. As entire industries adjust and many occupations undergo a fundamental transformation, the overarching aim of this study is to identify and quantify how the increased demand for digital skills in the labour market will affect different sectors and job roles.

² https://www.education.ie/en/Schools-Colleges/Information/Early-Years/eye_workforce_dev_plan.pdf



Appendix 1: Recent Publications by the Expert Group on Future Skills Needs (2013 - 2016)

Report	Publication Date
Monitoring Ireland's Skills Supply 2016	November 2016
Regional Labour Markets Bulletin	October 2016
National Skills Bulletin	September 2016
Future Skills Needs of the Biopharma Industry in Ireland	May 2016
Vacancy Overview 2015	May 2016
Guidance for Higher Education Providers on Current and Future Skills Needs of Enterprise: Springboard+ 2016	February 2016
Assessment of Future Skills Requirements in the Hospitality Sector in Ireland, 2015-2020	November 2015
Regional Labour Markets Bulletin 2015	October 2015
Monitoring Ireland's Skills Supply: Trends in Education and Training Outputs 2015	August 2015
National Skills Bulletin 2015	July 2015
Vacancy Overview 2014	May 2015
Lifelong Learning among Adults in Ireland, Quarter 4 2014	May 2015
A Study of the Current and Future Skills Requirements of the Marine/Maritime Economy to 2020	April 2015
The Expert Group on Future Skills Needs Statement of Activity 2014	April 2015
Addressing the Demand for Skills in the Freight Transport, Distribution and Logistics Sector in Ireland 2015 - 2020	February 2015
Regional Labour Markets Bulletin 2014	September 2014
Monitoring Ireland's Skills Supply - Trends in Education and Training Outputs 2014	August 2014
National Skills Bulletin 2014	July 2014
Vacancy Overview 2013	May 2014
Assessing the Demand for Big Data and Analytics Skills, 2013 - 2020	May 2014
The Expert Group on Future Skills Needs Statement of Activity 2013	April 2014
Regional Labour Markets Bulletin 2013	March 2014
Guidance for Higher Education Providers on Current and Future Skills Needs of Enterprise: Springboard 2014	February 2014
Addressing Future Demand for High-Level ICT Skills	November 2013
Monitoring Ireland's Skills Supply: Trends in Education and Training Outputs 2013	July 2013
National Skills Bulletin 2013	July 2013
Future Skills Requirements of the Manufacturing Sector to 2020	April 2013



The Expert Group on Future Skills Needs Statement of Activity 2012	April 2013
Guidance for Higher Education Providers on Current and Future Skills Needs of Enterprise: Springboard 2013	February 2013
Vacancy Overview 2012	February 2013