

**Minutes of Meeting No. 72  
of the Expert Group on Future Skills Needs  
4<sup>th</sup> May 2017 at 11am  
Department of Jobs, Enterprise and Innovation, Kildare Street**

<b>Present:</b>	Tony Donohoe	Chair Ibec
	Mark Christal	Enterprise Ireland
	Bryan Fields	SOLAS
	Paul Keating	Department of Education & Skills
	Peter Baldwin	Department of Education & Skills
	Declan Hughes	Department of Jobs, Enterprise and Innovation
	Kevin Daly	Department of Jobs, Enterprise and Innovation
	Peter Rigney	ICTU
	Margorzata Ferraz	IDA
	Alan McGrath	HEA

<b>Apologies:</b>	Ray Bowe	IDA Ireland
	Vivienne Patterson	HEA
	Kathleen Gavin	Department of Jobs, Enterprise and Innovation
	John McGrath	SOLAS

<b>In Attendance from Secretariat:</b>	Niamh Martin	Department of Jobs, Enterprise and Innovation
	Catherine MacEnri	Department of Jobs, Enterprise and Innovation
	Gerard Walker	Department of Jobs, Enterprise and Innovation
	Don O'Connor	Department of Jobs, Enterprise and Innovation

<b>Speakers:</b>	Dirk Pilat	OECD
	Edgar Morgenroth	ESRI

**1. Minutes of EGFSN Meeting Number 71**

The minutes of the previous meeting, held on 5<sup>th</sup> April were approved.

**2. DIRK PILAT (Deputy Director, Directorate for Science, Technology and Innovation OECD) - The Digital Transformation – Key issues for Jobs and Skills**

Mr Pilat gave a presentation on the digital transformation. The presentation focused on new ways of working and new forms of employment. Many jobs require new skillsets such as working with new information and solving unstructured problems rather than routine cognitive tasks and routine or non- routine manual tasks. Some occupations will be more affected by automation than others. Complex aspects of the work of software engineers can be performed by algorithms. Even computer-based managers are being trialled.

In Ireland in 2013, under 40% of Individuals judged their computer skills to be sufficient if they were to apply for a new job within a year. This is particularly of concern for older workers.

The digital transformation will see new forms of employment emerging, which will require different skill-sets such as ICT skills, socio-emotional skills, problem-solving and decision-making skills. It will also require new employment and training policies to emerge and workers will need to be agile and willing to learn throughout their working life.

The Digital transformation has implications for skills policies – there will be a need to improve the quality of education and training. The objective of increasing employability will require making skills more transferable and the workforce more adaptable.

Policy makers should be focusing attention on whether people are ready and prepared for the new digital economy and whether they are capable of learning? The OECD has found that those people who are lower qualified and therefore the least capable get the least training.

ICT skills will not be sufficient alone to enable an individual to thrive in the digital era – numeracy and literacy skills are vital. Skills policies should seek to: ensure initial learning equips all young people with relevant skills; encourage responsiveness to changing skill needs; promote more effective use of skills within or outside workplaces; and strengthen incentives and opportunities for further learning.

The Chair thanked Mr Pilat for the presentation, which he said would feed into the discussions on the group's work programme. He commented that the presentation raises very interesting questions regarding the skills requirements arising from the digital transformation, which are not just ICT-based.

A Q & A session followed with a number of observations being made. Some observations and questions included: has any research been conducted to measure the balance of skills required, e.g. academic skills versus soft skills?; is there truth in the notion that changes in technology are overtaking the need for language skills?; the contention that it is necessary to include 'coding' as a subject in the primary level curricula may need to be revised as there is evidence that technology is overtaking the need for human coders. Mr Pilat concluded that it was clear that technological advances are happening with speed and it has become increasingly difficult to predict the skills that will be required into the long term.

### **3. Dr Edgar Morgenroth – ESRI. Demographics**

Dr. Morgenroth gave the group an overview of the ESRI work in the area of demographic analysis and the resulting economic projections. He reiterated that the numbers were projections, not forecasts.

Population growth and decline impacts child-age dependency rates, old-age dependency rates and employment growth and job growth rates.

- The ESRI has provided medium-term economic projections for many years.
- These used to be based on the HERMES macro-econometric model.
- This was a large model of almost 1000 equations, but lacked some important dimensions (financial sector).

In December 2016 the ESRI published "Ireland's Economic Outlook: Perspectives and Challenges", which included a baseline scenario up to 2025 that was generated using a new compact macroeconometric model (COSMO).

Some of the projections include the almost doubling of the old-age dependency rates in some regions between 2011 and 2040, which will have an impact on the caring profession; more elderly-care skills needed and relatively less childcare skills. The employment and job growth projections mean more planning required in the area of transport infrastructure and housing.

The Chair thanked Mr Morgenroth for a very informative presentation.

A Q & A session followed.

#### **4. Discussion on Project Proposals**

The Chair introduced the project proposals for consideration by the Group. The projects are to be prioritised as it would not be feasible to carry out all of them immediately. The selected projects will form part of the EGFSN's Work Programme for 2017/18. The project proposals presented at the meeting were:

##### **1. Skills needs arising from Brexit**

A 'hard brexit' scenario could impact negatively on multiple high-employment sectors such as Beef, Dairy, Food and Drink manufacturing, Timber, Tourism, Retail and traditional manufacturing while potentially creating employment opportunities in Financial Service, Fintech, ICT, Professional Services and Research. Given the limited skills profile overlap between these industry groupings, re-skilling will be a key action, as will actions for upskilling the workforce to grow and diversify trade into non-UK markets and take advantage of new employment opportunities.

The aim of this project is to identify the potential impact of Brexit on the skills needs of enterprise and the upskilling/ reskilling requirements of individuals. It will propose skills actions to take advantage of business opportunities arising including from mobile inward investment, as well as actions that can help mitigate any harmful effect of Brexit. Several key drivers of change along with Brexit will combine to have an impact on the skills needs. An investment in the right skills development generally will help enterprises improve their productivity and competitiveness within a post Brexit trading environment. The project will focus on the skills and talent needs identified as being most directly related to the impact of Brexit.

Expected outcomes are that the supply of talent and workforce skills will help Ireland to take advantage of business employment growth opportunities arising as a result of Brexit and to mitigate any negative effect that may also arise in the key markets and for sectoral opportunities.

##### **2. 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, to name just a few. As entire industries adjust and most occupations undergo a fundamental transformation the overarching aim of this study is to determine how businesses, government and individuals will need to respond to ensure the skills are available and avoid talent shortages, mass unemployment and growing inequality.

SMEs face barriers to the use of digital technologies. In addition to lacking financial resources to invest in digital technologies, SMEs often lack the skilled people to operate such technologies, the resources to train these workers, and the managerial skills to make the most of these new technologies. SMEs are also often less aware than large companies of the benefits of digitalisation and of what digital solutions are more relevant to them.

Effective digital skills provision is essential to ensure the workforce is prepared for this and future technological changes. And as the digital economy grows, there will be even greater demand for people with specialist digital skills. However, the rapid pace of technological change means digital techniques and technologies are also constantly evolving. The pace of technological change makes it difficult to predict the nature of digital skills that will be needed in future. Requirements will change quickly so people will need to up-skill across their working lives. It is therefore essential for people to continue to develop their digital skills after they have left formal education.

### **3. ICT Action Plan (Methodology Refresh)**

The Study will focus on forecasting the future demand (over the five year period 2017-2022), for high-level ICT Skills (quantity, quality and diversity) arising both within the ICT sector and across other sectors of the economy. This will be compared against the projected supply for such skill (to be prepared by HEA/SOLAS) over the period. Actions will be identified to boost the domestic skill supply of high-level ICT talent and retain and attract talent.

#### **Outputs Expected**

1. Annual demand forecast scenarios for (a) computer engineering skills and (b) electronic & electrical engineering skills arising from (i) the ICT sector and (ii) across other sectors of the economy - for over the period 2017-2022. There will be one central skill demand forecast scenario proposed that is anticipated most likely to occur.
2. The implications of the central skill demand forecast scenario for emerging skillsets and competences.
3. Identification of any additional actions:
  - (a) that could enhance the domestic skill supply of high-level ICT over the period 2017-2022 - including the continuing professional development of those at work.
  - (b) that could be introduced for attracting and retaining high-level ICT and related skillsets (from within and outside the EEA) over the period 2017-2022.

### **4. Changing Demographics and Skills Needs**

The aim of this project is to explore the potential impacts that changing demographic trends may have on the future supply and demand for skills in Ireland.

Demographic changes, including those listed below, are likely to have significant impacts on both the supply of and demand for skills in Ireland in the coming decades.

Indications from the ESRI for the National Planning Framework are that there could be an extra 500,000 people in the labour force by 2040.

The dependency ratio will worsen: living longer means more older people; and we have two narrow points in the Irish population pyramid, mentioned above, and based on Census 2016, showing fewer children born in the early 1980s and from 2009, both periods of recession. This leaves us with a lot fewer people in the workforce in their 20s than we have in their 30s and 40s.

This is a broad subject area, encompassing Jobs, Skills and Technological Change, as well as (mentioned above) being relevant to the entire Labour Force.

This project should take a long view of at least 20 years, but potentially should say something about the entire career (40 years) of a worker entering the Labour Force in 2017. It should align with the timeframe of the National Planning Framework to 2040.

### **5. Early Childhood education**

Ensuring that Ireland has a skilled workforce to deliver early years education and care is of vital strategic economic and social importance. There is strong evidence regarding the social and personal benefits that accrue to children as a result of high quality early education and care, and the positive economic impacts for society are well documented. The labour market is highly dependent on the availability of quality childcare.

A commitment has been made to carry out this work in the Report on School Age Childcare (2017) as well as the Action Plan for Education 2016-19.

### **6. Review of National Strategies and Action Plans**

The aim of this project is to review all the current enterprise-related strategies and action plans to examine what, if any, are the skills implications of all these reports in their totality and to identify if there are any synergies between the reports or indeed contradictions.

Many of the Government strategies, policy documents and action plans of recent years have been written in isolation from each other in relation to assessing their potential skills impacts. It is plausible that because of this there may be areas of duplication and/or inconsistencies in relation to skills issues. The rationale for the project is that when reviewed holistically, some of these issues may be uncovered. This could also assist in the prioritisation of future skills initiatives, which will become more important as the labour market tightens further.

### **Conclusions & Actions arising:**

The Chair thanked the Group for their input and reiterated the fact that the EGFSN has to be realistic as regards how many of the proposals they can take on. It also has to ensure that its priorities are closely aligned with national enterprise strategies. The outcome of the discussion regarding the project proposals was, in summary:

1. There was agreement that the project on Early Childhood Education will proceed immediately. (DJEI to lead)
2. The project on Changing Demographics and Skills Needs will be deferred until a later time after completion of the National Planning Framework.
3. It was decided that a short scoping paper on the Review of National Strategies and Action Plans will be drafted with a view to identifying horizontal skills issues to present to the National Skills Council. This project links closely to the Review of recommendations made by the EGFSN, prepared previously. (DJEI)
4. The Group agreed that the scope of the project on Brexit needs to be refined. Following some discussion, it was agreed that an initial scoping document on the possible skills implications of Brexit be drafted. (DJEI)
5. Further examination of Projects, Skills for the Digital Economy and ICT Action Plan (Methodology Refresh) should be carried out to ascertain whether the scope of both can be merged. (DJEI)

### **5. Any Other Business and date of next meeting**

The next meeting date tbd. There being no other business the meeting ended.