

Expert Group on Future Skills Needs publishes *Forecasting the Future Demand for High Level ICT Skills in Ireland, 2017-2022*

The strong demand from employers for people with high level ICT skills across the economy is forecast to continue over the coming years, according to a new report published by the Expert Group on Future Skills Needs. This is forecast to result in a potential 73,000 new High-Level ICT job openings, arising from expansion and replacement demand, between 2018 and the end of 2022.

*Forecasting the Future Demand for High Level ICT Skills in Ireland, 2017-2022*, which was a key input into the development of the third ICT Skills Action Plan, [Technology Skills 2022](#), marks the continuation of the EGFSN's supporting role to the ICT Skills Action Plan process- a previous study, 2013's *Addressing Future Demand for High Level ICT Skills* informed the development of the *ICT Skills Action Plan 2014-2018*.

The report is a qualitative and quantitative overview of the market, technology and service trends, and demand for High Level ICT Skills in Ireland over the period 2017 to 2022. 'High level' is defined as those skills required for designing, building and implementing high level ICT systems i.e. Computer and Electrical/Electronic engineering skills at NFQ Levels 6/7 and Levels 8+. This excludes primarily ICT user skills.

Informed by a comprehensive qualitative research exercise with over 100 High Level ICT stakeholders, as well as relevant domestic and international trends, the study aimed to quantify the current and future demand for High Level ICT skills across the Irish economy, through the development of three skills demand scenarios- low and high growth scenarios, and a central baseline scenario regarded as most likely to occur.

The study finds that there will be strong growth in the demand for High Level ICT Skills in the coming years, driven by market demand, technology shifts, the impact of cloud, and the spread of digitalisation across all sectors. Key technologies and applications identified include Artificial Intelligence, Big Data and Analytics, Blockchain, Cloud Computing, Cybersecurity, the Internet of Things, Micro- and Nano-electronics and 3D Printing.

In this context, enterprises are experiencing challenges in acquiring the right types of technical skills, the right level of experience, and right mix of skills. To address the demand firms are upskilling and reskilling existing employees, hiring a mix of graduates and people from other organisations, outsourcing, and importing talent through the employment permit system.

According to the study's central baseline scenario, there will be an 8.5% compound annual growth rate in demand for High Level ICT professionals in the years to 2022. From a 2016 baseline of 85,515, demand will grow to 139,140 in 2022. Annual potential job openings will increase from 12,920 in 2019 to 17,795 in 2022.

Demand will be strongest at NFQ Level 8+, for computing skills over electrical and electronic engineering skills, and within the broad ICT sector over other sectors of the economy.

Minister for Business, Enterprise and Innovation, Heather Humphreys T.D. said:

“This report is a key contribution to our understanding of the demand for high level ICT skills over the coming years, which will be crucial to the deployment and exploitation of those emerging technologies that will drive digitalisation across all sectors, transform the world of work, and underpin the future productivity and competitiveness of the Irish economy.

It has been a key input into the development of *Technology Skills 2022*, which will in turn support the objectives of the Government’s Future Jobs Ireland programme that will be launched shortly- this will aim to ensure our enterprises and workers are well positioned to adapt to the technological and other transformational changes our economy and society will face in the years ahead’.

Minister for Education and Skills, Joe McHugh T.D. said:

““The ambition of the new ICT Skills Action Plan, *Technology Skills 2022* is to grow the number of highly skilled ICT graduates by 47,000 over the period. We set ambitious targets based on the findings of the Expert Group on Future Skills Needs and its work provided valuable input.

The need for highly skilled professionals that the Expert Group identified has driven the thinking behind the *Technology Skills* plan. And it has spurred the education and training sector to commit to a range of measures, from expanding existing provision to establishing new apprenticeship routes and supporting skills development in areas of high growth such as artificial intelligence, blockchain, gaming, cybersecurity/next generation security.

It is through collaboration and partnership between the education and training sector and industry that the ambitions of the plan will be realised and future skills needs met.”

Minister for Training, Skills, Research and Innovation, John Halligan T.D. said:

“This latest Expert Group on Future Skills Needs report is a very welcome addition to the ongoing preparation for future skills demands. This study deals with the high-level skillsets that are driving digitalisation across all sectors and which are key to the future performance of the economy. Its in-depth findings have provided the basis for our supply response across the Higher and Further Education and Training sectors in the coming years, as reflected in *Technology Skills 2022*”.

Minister for Trade, Employment, EU Digital Single Market and Data Protection, Pat Breen T.D. said:

“The Expert Group on Future Skills Needs have highlighted how a constant supply of highly skilled ICT professionals will be essential if Ireland is to maintain its position at the forefront of the digital transformation agenda. In particular, opportunities will arise for Ireland to lead on emerging technologies such as data analytics, artificial intelligence, animation and gaming. The report’s forecasts set the challenge which will now be met in the new ICT Skills Action Plan.”

Chairperson of the Expert Group on Future Skills Needs, Tony Donohoe, said:

“This report marks the continuation of the EGFSN’s key supporting role to the ICT Skills Action Plan process, with our research highlighting how the Irish economy has moved onto a higher growth plane in terms of the demand for high level ICT skills.

I urge all relevant stakeholders- Government, industry, and the education and training sector- to maximise their response to the demand forecasts set out in this report, in order to achieve the necessary step change in Ireland's ICT skills supply performance targeted in *Technology Skills 2022*."