



Skills in Demand, Ireland

25 November 2014

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Chairperson, EGFSN



The work of the Expert Group on Future Skills Needs



- Projected skills requirements at **national & sectoral levels** & recommendations
- Priority education & training requirements
- Skills that must be met through **inward migration**
- Developments in overseas content/delivery systems & adaptations to Irish provision
- **Recommend how existing systems** & delivery mechanisms might be adapted
- Convey views on programmes supported by the NTF to the Minister
- Ensure recommendations are assessed & **inform on implementation**
- Provide info. to assist **labour market justification** for new/existing programmes



22 members appointed by the Minister for Education & Skills with the industry members being appointed in consultation with the Minister for Jobs, Enterprise & Innovation

- ❑ **Business** (Facebook, Openet, Cook Medical, ICE Group)
- ❑ **Employee** (ICTU) & **Employer** (IBEC, ISME) representatives
- ❑ **Higher & Further Education** (HEA, SOLAS, Skillnets, CIT, IUA, NALA)
- ❑ **Enterprise Development Agencies**, (IDA, EI)
- ❑ **Guidance Counsellors** (IGC)
- ❑ **Government Departments** - Education & Skills
 - Jobs, Enterprise & Innovation
 - Public Expenditure & Reform

Steering groups for sectoral studies which bring in expertise from companies, business associations etc

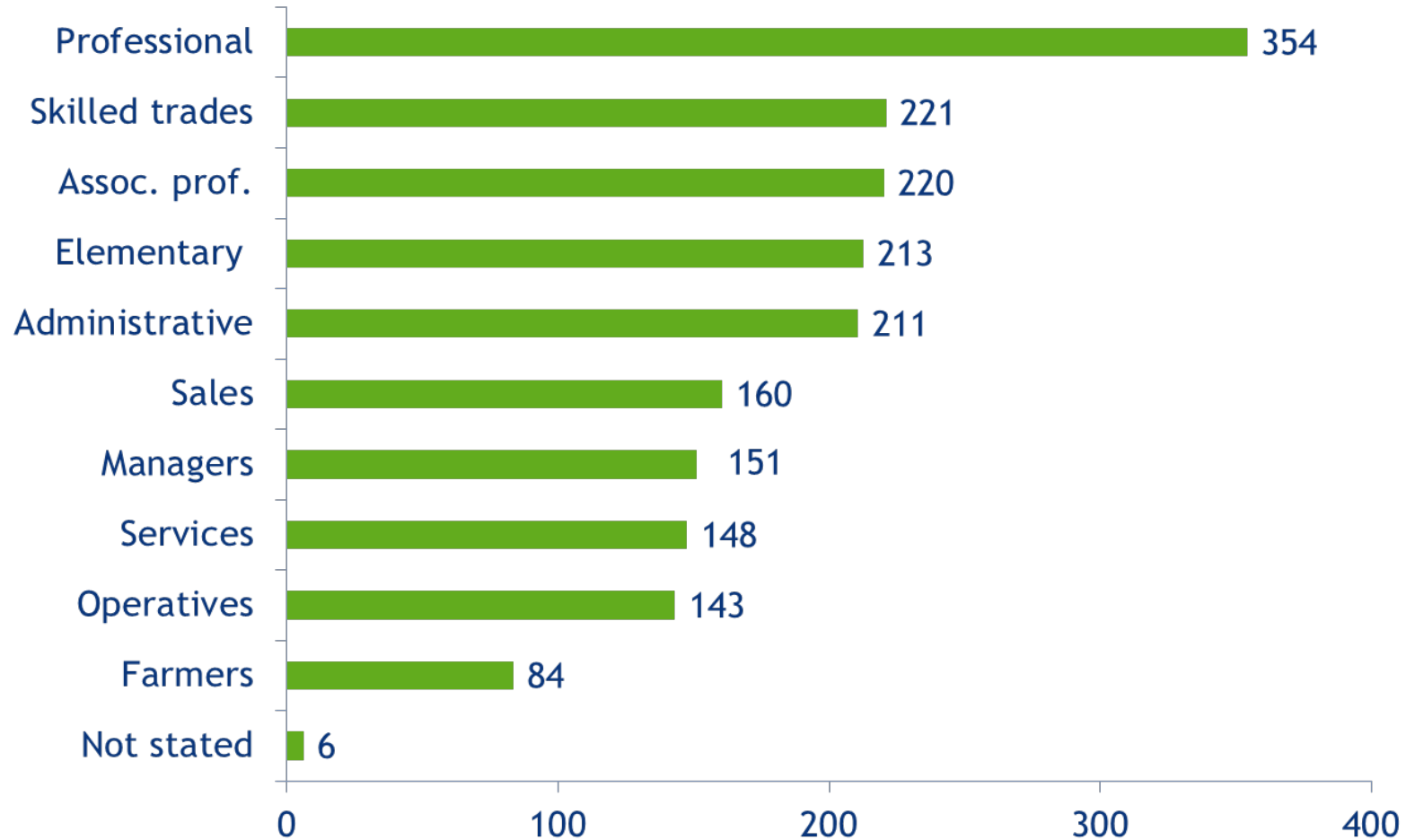


The Irish Labour Market

Employment by sector (Q 4 2013, 000s)



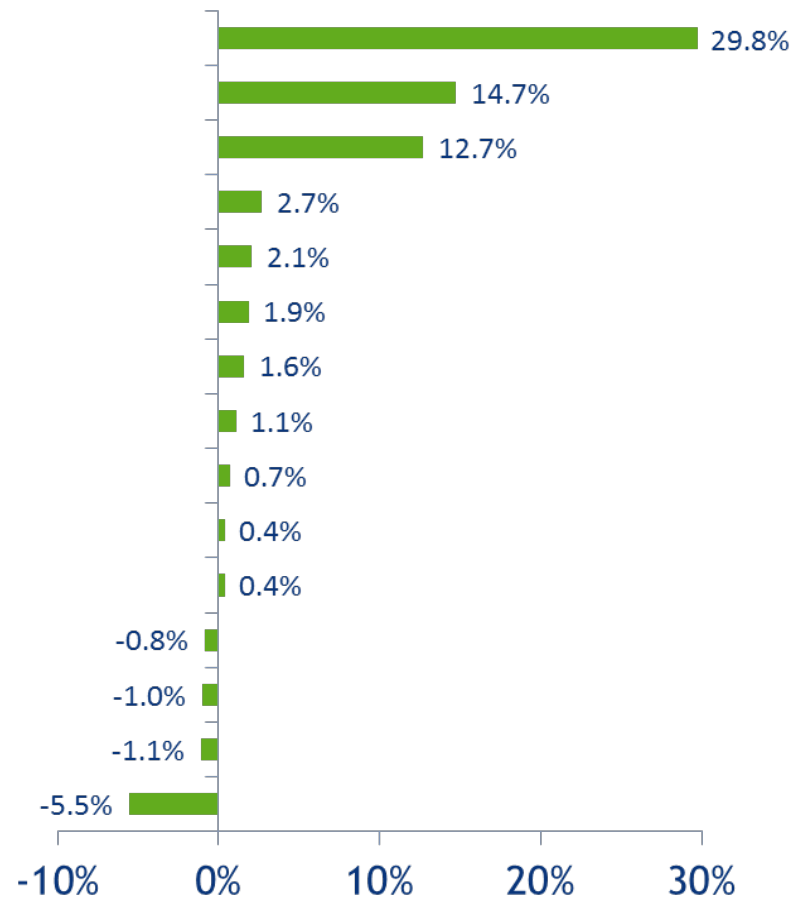
Employment by occupation (Q 4 2013, 000s)



Employment growth by sector (Q 4 2012 - Q 4 2013)



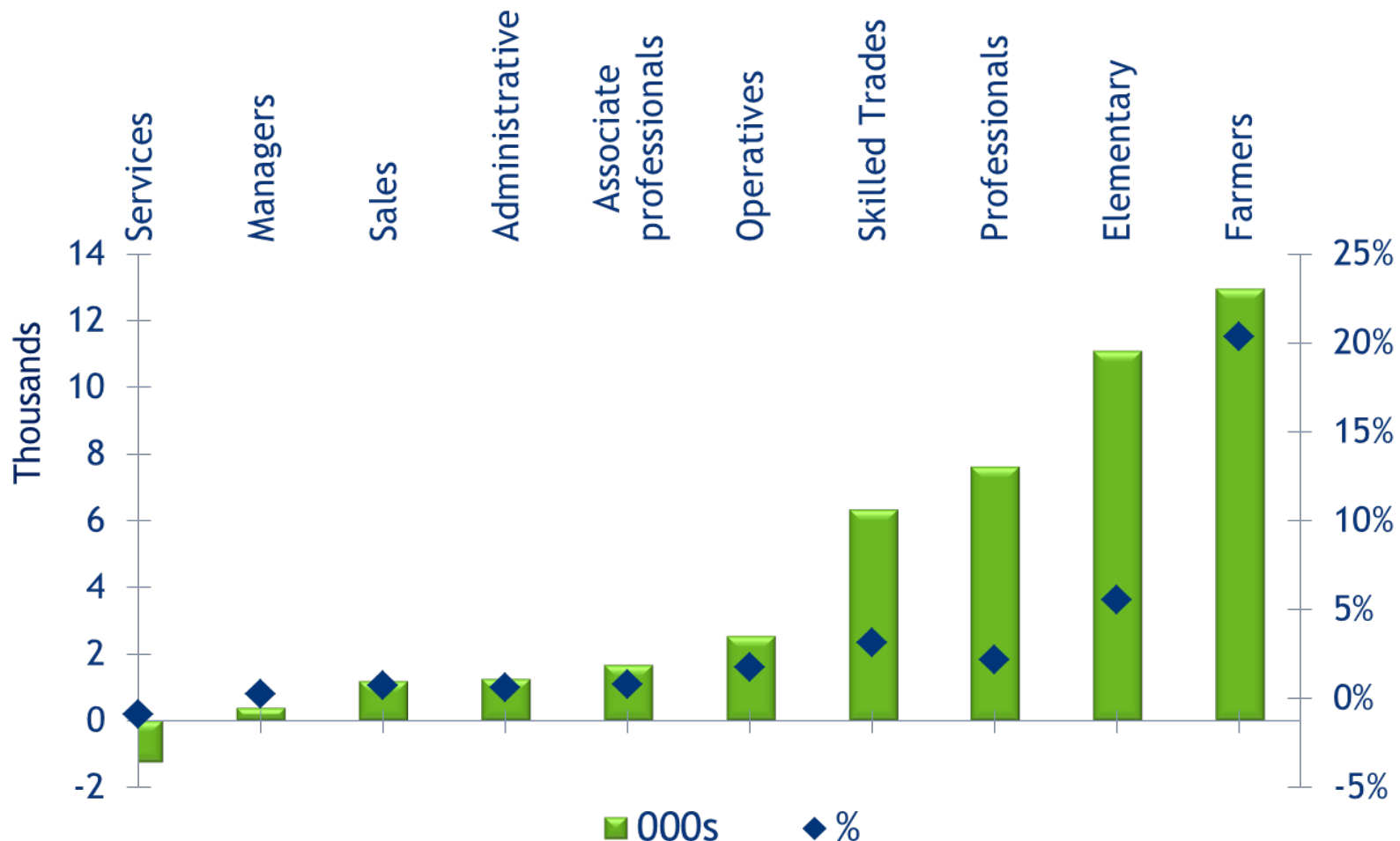
- Agriculture, forestry and fishing
- Accommodation and food services
- Professional, scientific and technical
- Industry
- Administrative and support services
- Other NACE activities
- Human health and social work
- Education
- Transportation and storage
- Construction
- Total employment
- Information and communication
- Public administration and defence
- Wholesale and retail trade
- Financial, insurance and real estate



* Estimates of employment in the agriculture, forestry and fishing sector have been shown to be sensitive to sample changes overtime and growth rates should be interpreted with caution

Employment growth by occupation

(Annualised data, 2012-2013)





The Changing Nature of Skills

Drivers of Change



Trends shaping Future employment



Higher skills required across virtually all roles.

- 1. Technology** is impacting across skill levels, with basic ICT skills a pre-requisite for many occupations.
- 2. Offshoring** - basic processing, assembling /service functions offshored from developed countries
- 3. Automation** has reduced the demand for labour - routine roles
- 4. Focus is on productivity** and more **knowledge intensive activities** across all occupations
- 5. New and emerging sectors** - green technologies, cloud computing, data analytics, creative industries, with changing occupational needs, e.g. upskilling requirements for operatives due to technological and productivity gains within manufacturing
- 6. Globalisation** has also led to **increased mobility of labour** with inward and outward migration a strong feature of many LMs, including Ireland's, and significantly influencing the skills profile of the labour force
7. Significant degree of **churn occurring in the labour market** - New enterprises & jobs are constantly being created while other jobs are lost, enterprises fail, while employees leave jobs - promotion, retirement or return to education and training
8. Demographic Profile in various countries – ageing populations; work age v pensioners, living longer
9. Challenge ahead to ensure flow of new skills and that **the labour force is continually upskilled to meet the demands of the 21st Century workplace**



1. **With globalisation graduates are become highly mobile & more opportunities internationally:** world competition for skills in areas such as ICT and Life Sciences remains intense
2. Expected to work in virtual teams see growing increase in 'homeworking' already – internet connectivity
3. Work will increasingly be performed in fixed-term project teams of people within & outside a company
4. Major emphasis on flexibility - Employees will increasingly expected to work from home and to work flexible hours
5. Emphasis on development and learning – taking the initiative, online, peer learning opportunities

What skills will be in greatest demand amongst graduates?



- **Foreign language proficiency** & cultural awareness (both numbers and proficiency) in German, French, Spanish & Italian; smaller nos. in Mandarin Chinese, Russian & Arabic
- **International sales** graduates, including compulsory modules on international sales in business courses & a degree & post-graduate diploma in international sales with foreign languages
- Strengthen focus within business & marketing programmes on the potential value and use of **E-commerce and social media applications**
- **High Level ICT skills**
- **Data Analytics Skills** – data savvy people Big data savvy roles (market research analysts, business and functional managers whose roles require interpreting and using data to drive business performance)
- **Developing the research base** - development of new products, services and ideas and building the talent around absorbing new research in the economy



EGFSN work - cos. generally satisfied with graduates and their range of skills

Lower satisfaction with some of the **transferable skills**

1. People-related skills (communication - written, interpersonal, team-working, customer-service skills)

- the ability of individuals to work more autonomously,
- be self-managing, self-motivated
- work as part of flexible teams, - multi-disciplinary
- adapt to change,

2. Conceptual/thinking skills

- collecting and organising information
- problem-solving
- planning and organising, learning-to-learn skills
- project management (at least the tools)
- think creatively and engage with innovation as a continuous process

These skills are required by businesses in addition to core specialisms & expertise & should be embedded in programmes.eg necessary for interaction with customers, suppliers, regulatory / funding bodies

Issue of work experience in every report we produce



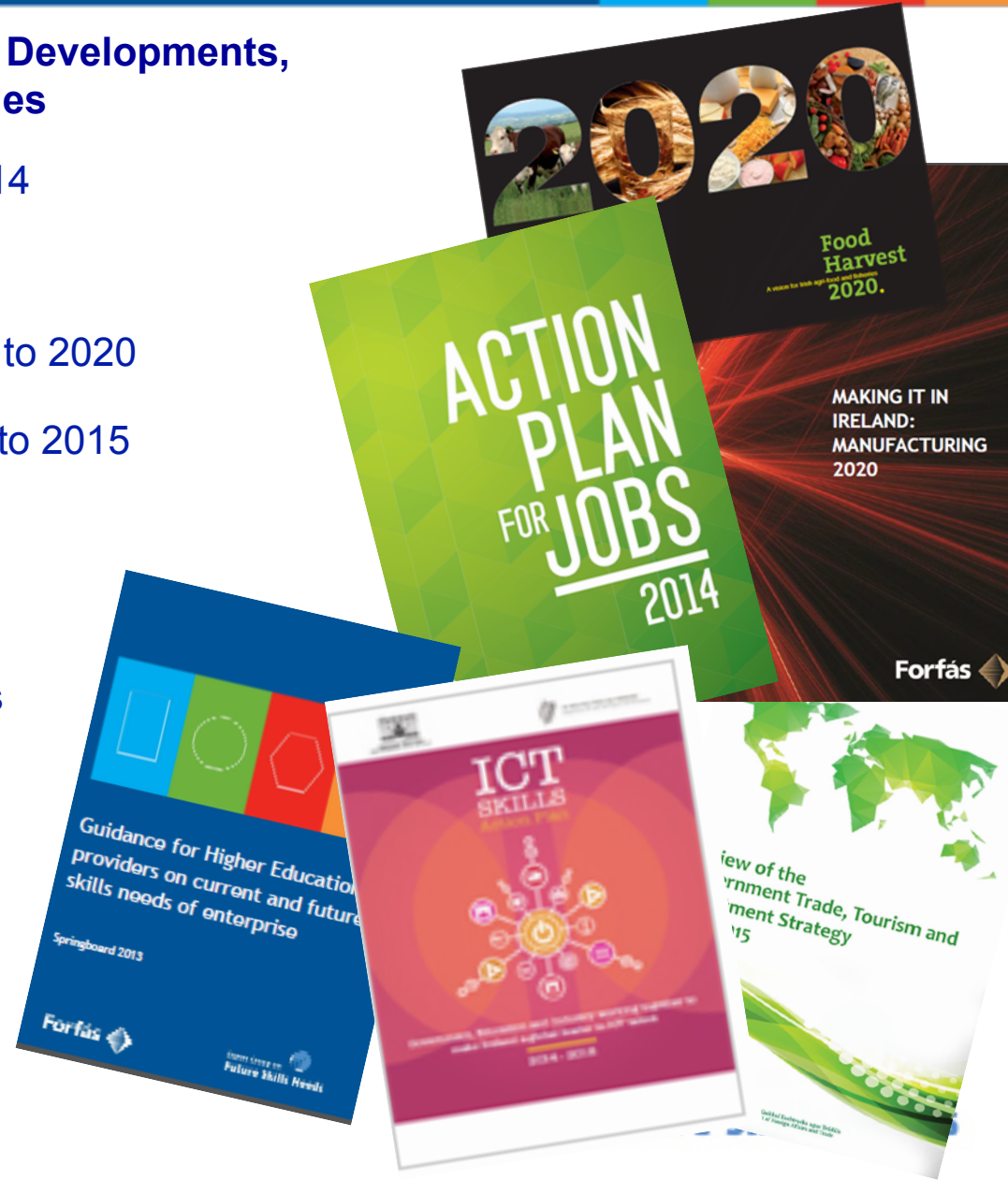
Areas of Identified Skills Demand

EGFSN & National Enterprise Policy



Work of EGFSN linked to Enterprise Developments, National Policy Objectives & Strategies

- Action Plan for Jobs - 2012, 2013, 2014
- ICT Skills Action Plan, 2014
- Strategy for the Manufacturing Sector to 2020
- Trade Tourism & Investment Strategy to 2015
- Food Harvest 2020
- Green Economy Strategy
- Migration Policy – eligible occupations
- FET & HE Strategies
- Labour Market Activation
 - ICT Conversion
 - Springboard
 - Momentum
 - Skillnets





Ambition

- To create the environment where the number of people at work will increase by 100,000, from 1.85 million to 1.95 million, by 2016, and reach 2.1 million people by 2020.
- To become the best small country in which to do business.
- To get back to a top-5 ranking in international competitiveness
- To build world-class clusters in key sectors of opportunity
- To build up the export market share of Irish companies

Approach

- Mechanism to align all Government Departments and Agencies aligned around a “Enterprise Growth and Jobs” agenda
- Annual process – *becoming embedded?*
- 270 actions in 2012; 333 in 2013; 385 in 2014.
- Now encompasses actions from all 16 Government Departments and 46 Offices & Agencies
- Above all else it is an Implementation mechanism - subject to quarterly review by monitoring group (D/Taoiseach, DJEI, DPER), CCERJ and Government.



- Annual publication
- National labour market overview
- Sectoral employment trends and outlook
- Occupational analysis:
 - Employment trends & profiles for 135 occupations
 - Unemployment trends & profiles
 - Labour market transitions
 - Vacancies
 - Sourcing from outside the EEA – employment permits
 - Indication of skills & labour shortages

Objective - To inform policy in the areas of

- Education & training
- Active labour market policies
- Immigration
- Career guidance

Areas of Skills Shortage



- **ICT** (software developers, databases/big data, specific product knowledge, IT security, technical support, networking & infrastructure)
- **Engineering** (production & process engineering; quality & validation; product development & design (chemicals, biotechnology, pharmaceuticals, ICT, food & medical devices); energy; telecoms; project management & production planning)
- **Science** (R&D, science & business; science & sales)
- **Business & finance** (accountants-financial, tax, compliance, solvency), quantitative analysts (financial analysts, statisticians, economists, actuaries, risk analysts), mgt. consultants
- **Health** (doctors -GPs & non-consultant hospital doctors), nurses - intensive care, theatre, oncology, paediatrics, geriatric care), radiographers (CT, MRI), sonographers
- **Sales** (technical sales (B2B & B2C), multilingual customer support, online sales & marketing)
- **Craft** (tool making, welding (TIG, MIG))
- **Transport** (multilingual supply chain & logistics managers, HGV & forklift drivers)
- **Clerical** (multilingual credit control/debt collection, supply chain & logistics)

High Level ICT skills



- **Strong demand** for people with high level ICT skills
- Potential **44,500 new job openings** (expansion & replacement to 2018)
- **68,280 ICT professionals** working in ICT sector & across other sectors
- **5% pa growth for these high-level ICT skills to 2018**
- Increasing the employment of **ICT professionals to 91,000 by 2018**
- Specifically Honours, masters & some Phd level graduates from
 - Computing courses (software, computer programming & multi-media gaming)
 - Electronic & electrical engineering (communications, mechatronics & electronic/ computing engineering).
- **ICT Skills Action Plan** – doubling graduates, Conversion/Springboard
- Flexible learning & CPD for employees to upskill for these roles e.g. EMC, Intel, IBM, VMware with 3rd level



Manufacturing



- Sector currently employs around **200,000 people**
- **Replacement demand of 4,000 to 5,000 persons p.a.**
- Employment depends on domestic competitiveness & favourable international trading environment
- **Increasing demand for higher skills, skilled operative jobs replacing elementary jobs & employment of qualified technicians & STEM professionals increasing**
- A small no. of skills shortages but critical at operational level - toolmakers, machinists, supervisors, polymer technicians & **across a number of engineering disciplines**
- **3rd level role in up-skilling requirements for employees through CPD / in company programmes**
- Scenario of up to 20,000 additional jobs in the sector to 2016



Big Data / data analytics roles



- **Deep Analytical Talent** Roles with combination of
 - advanced statistical, analytical & machine learning
 - business skills to assess data & business insights
 - analytical & problem solving skills
 - communication skills to explain/ persuade othersShortage of deep analytical talent - acute constraint

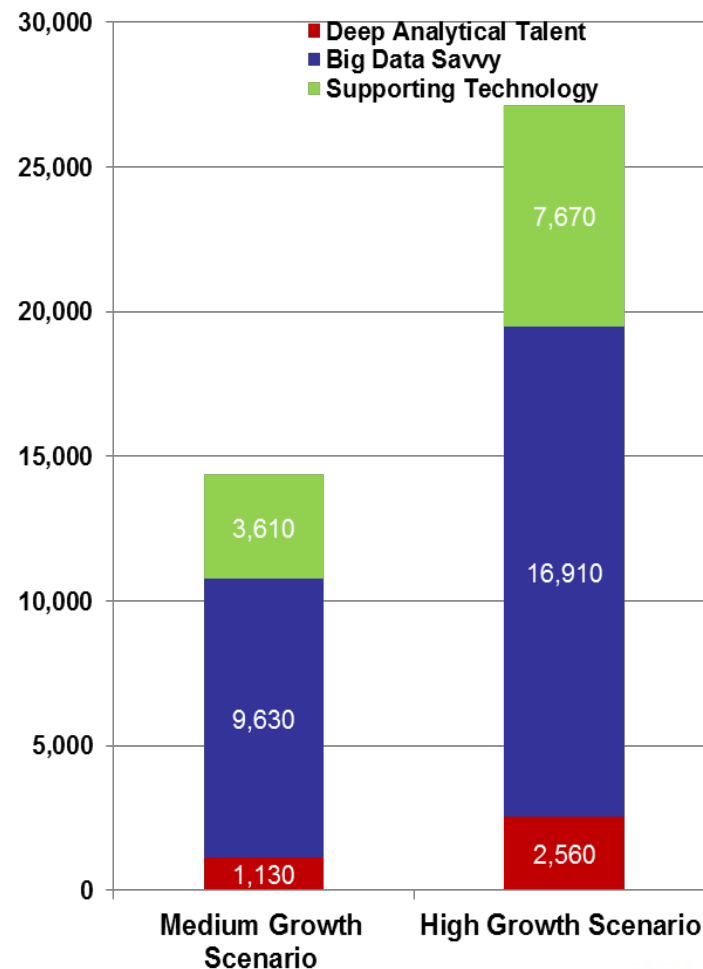
- **Big Data “savvy” Talent** - Roles comprising
 - “data savvy” managers,
 - CIO’s,
 - market research analysts,
 - business and functional managers

Understanding of value & use of analytics to interpret & utilise insights from the data & take decisions

- **IT Supporting Technology**

IT Roles for the application & development of data bases, analytics & business solution software i.e Hadoop, MySQL, MapReduce

Total Big Data and Analytics Demand Change 2013 – 2020





Foreign languages

- Boost the **uptake of modern foreign languages at 3rd level**
- Aligning assessment of foreign **language proficiency to CEFR**
- Focus **Erasmus students** placements on study/work in non-English speaking markets. HEA should set placement targets

International Selling

- **International sales module on 3rd level general business & marketing courses** – focus on B2B; B2G, Technical Sales content in courses – infrastructure & large systems
- **Post graduate diploma courses in international sales with foreign languages** e.g German, French, Spanish
- **International Sales Degree programme** - active co. engagement
- Strengthen focus within business & marketing programmes on the value & use of **E-commerce & social media applications**





What is being done to address skills needs?

ICT Skills Action Plan



EGFSN Report , Nov 2013

Continuing strong demand for people with honours degree level + (NFQ 8 & 9) ICT skills across the economy could lead to 44,500 new job openings arising from expansion & replacement demand over the next 6 years

Government's ICT Skills Action Plan (14 March 2014)

- Graduates from HE supply over 60% of the demand & this plan will boost graduate numbers to meet approx. 74% by 2018 by enhancing core provision, improved retention, conversion programmes & awareness raising, especially for females on ICT careers

- Inward migration will always play a key role in meeting the demand for high-level ICT skills with the issue of up to 2,000 work permits for ICT professionals in 2014



Aligning Labour Market Activation initiatives with Future Skills Needs of Employers

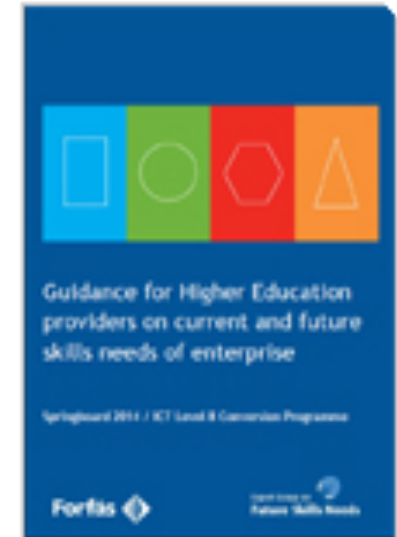


Springboard & ICT Conversion

The EGFSN Guidance document summarises the skills in demand across various sectors in the economy. Each year it accompanies the Government funded call for up to 6,000 places on part-time HE courses for jobseekers with the aim of progressing them to employer

Priorities for Springboard / ICT Conversion 2014:

1. ICT Skills – all sectors
2. Manufacturing – engineering, biopharma-pharmachem, medical devices, food & beverages, consumer goods & ICT hardware
3. Skills to Trade Internationally – all sectors
4. International Financial Services
5. Cross-Enterprise Skills – big-data savvy roles,
6. entrepreneurship, creativity-design-innovation, business & finance, core management, people skills
7. Construction – BIM, Green, Management





- Provides flexibility to deal with changing labour market, work patterns & economic development needs
- Provides for a robust employment permits regime & clarity & certainty to potential investors & employers to better enable business planning & HR decision-making

A legislative basis for the following new Employment Permit types:

1. Critical Skills EP (formerly Green Card) *as advised by the EGFSN*

- To attract highly skilled people into the labour market to fill our critical skill shortages
- Labour Market Needs Test is not required

2. General EP (formerly Work Permit)

- To attract 3rd country nationals for a range of occupations of a general skill level
- All occupations eligible unless specified in “Ineligible Categories of Employment“ list
- Labour Market Needs Test is required
- Salary of €30k

Further Education & Training Strategy



Strategic Goals:

- **Planning and Funding** - provision will be planned & funded on the basis of objective analysis of needs and evidence of impact
- **Active Inclusion, Literacy and Numeracy Strategy** - provision will support the active inclusion of all citizens with special reference to literacy and numeracy
- **Quality Provision** - provision will meet appropriate national and international quality standards
- **Employer Engagement** - linked to labour market needs and will contribute to national economic development
- **Standing of FET** – reposition FET as a high-status learning path leading to worthwhile career options

Further Education & Training Strategy

ETBs - Increased focus required



- Progression outcomes to work/education/training
- Retention & completion rates - capacity of courses to bring learners through assessment & certification;
- Career guidance – choices based on combination of learner's strength/aptitude & job opportunities
- Intensity of programmes to appropriately equip learners for work – major versus minor awards
- Drift by some providers towards higher NFQ levels – issue with sharp decrease in lower level awards
- Structures to improve engagement with local employers & input into development of programmes
- Enhancement of work place learning, RPL, flexible learning & e-learning

Impact and Outcomes



- ICT skills Action Plan
- Aligning LMA initiatives with Future Skills Needs of Employers
- Skillnets programmes, EI programmes (lean, leadership,)
- Migration Policy – Critical Skills for employment permits align to EGFSN findings
- Sector reports – actions on specific recommendations
- Higher Education Strategy – performance metrics framework & EGFSN
- Further Education Strategy – employer focus as well as the learner; EGFSN
- Submissions – Enterprise module in LC, Adult Literacy, apprenticeship review
- Maths – Project Maths Implementation
- Work placements – increase in undergrads in 3rd level
- FE & common awards system in sectors e.g retail
- Skills for Work Programme – focus on food sector & manufacturing
- Management Development in Small businesses – ManagementWorks
- Guidance Counsellors, Qualifax, Careersportal – regular updates

Thank you!



Thank you

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www.skillsireland.com