



# Future Skills Needs of Enterprise within the Green Economy in Ireland

November 2010

# Steering Group Members



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## Aim of Study



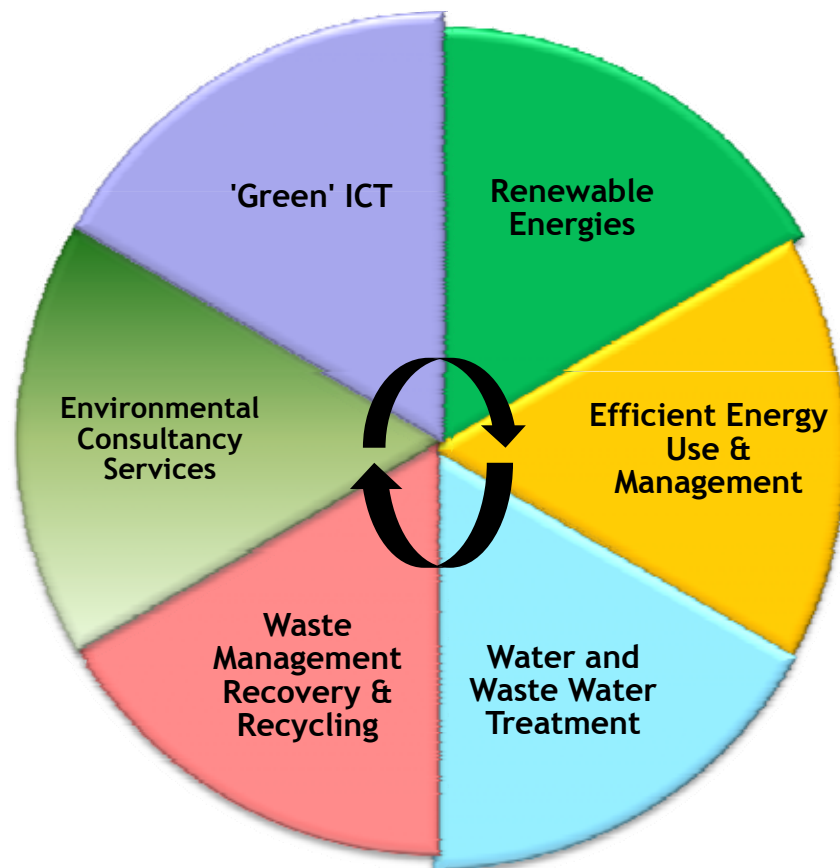
- The aim of the study is to identify the skills requirements of enterprises engaged within the ‘green economy’ in Ireland and to propose a range of measures to ensure that their future skills base will help drive employment and business growth.
- It informs education and training providers (and enterprise) on the required alignment of programmes to meet enterprise skills needs and will help individuals make an informed choice around employment opportunities and their career choice.
- Future Skills demand is considered over a 3-5 year period in terms of the required quality, diversity and quantity of skills.



The overarching vision set by the Steering Group for the sector is :

**‘For Ireland to be the benchmark ‘smart green’ economy for population centres under 20 million by 2015 - and to have the skills base and talent to drive innovative and high value products and services and maximise future business and employment growth potential’**

# Scope of Study- Six Sub-Sectors



Innovative,  
High-Value  
Products &  
Services

## 'Smart Green Solutions

- Housing
- Environment
- Transport
- Industry
- Consumer Products
- Bio Diversity

Sustainable development  
delivering economic,  
social & environmental  
benefits

# Global & Domestic Drivers of Growth



There are strong global and domestic drivers of growth impacting on the sector:

- **Environmental & Energy Concerns-** leading to increased R&D investment and global supply chain opportunities .
- **Environmental Directives and Regulations** - EU & Domestic.
- **Economic** - major economies have included ‘green’ initiatives as part of their stimulus packages.
- **Technological Convergence** - generating opportunities for innovative, high-value products and services.

# Skills Gaps



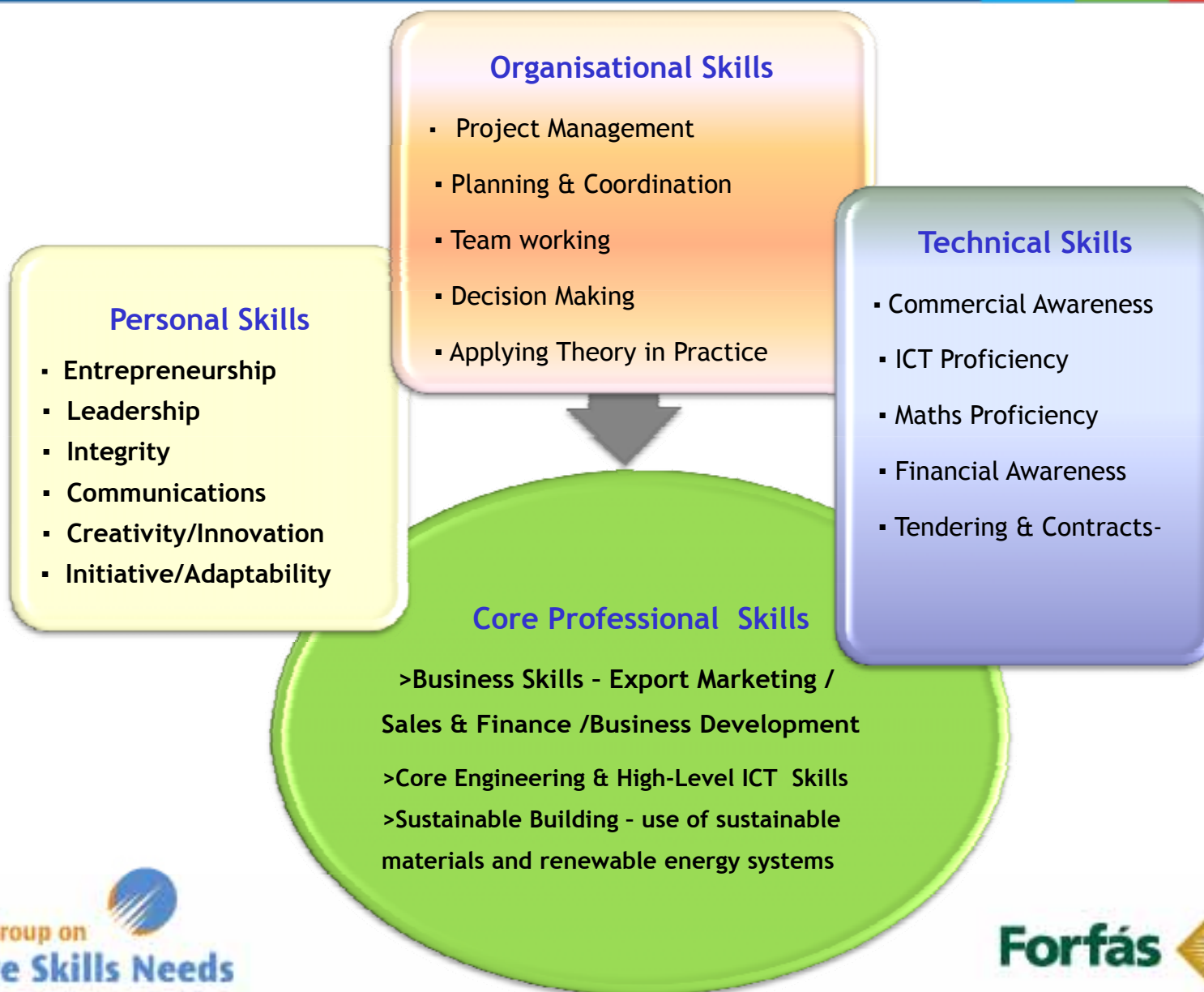
- 60% of companies researched had a skills gap- arising from drive for new products and services - can be met by upskilling. Examples are:

**Across Companies :** Managers - Export Marketing and Sales, finance, project management foreign languages, environmental management systems, international environmental standards and regulations.

**Renewable Energies:** Power Engineers - for the development of electricity grid into a 'smart distribution network'- core engineering skills with a bias towards electrical engineering combined with ICT/business skills.

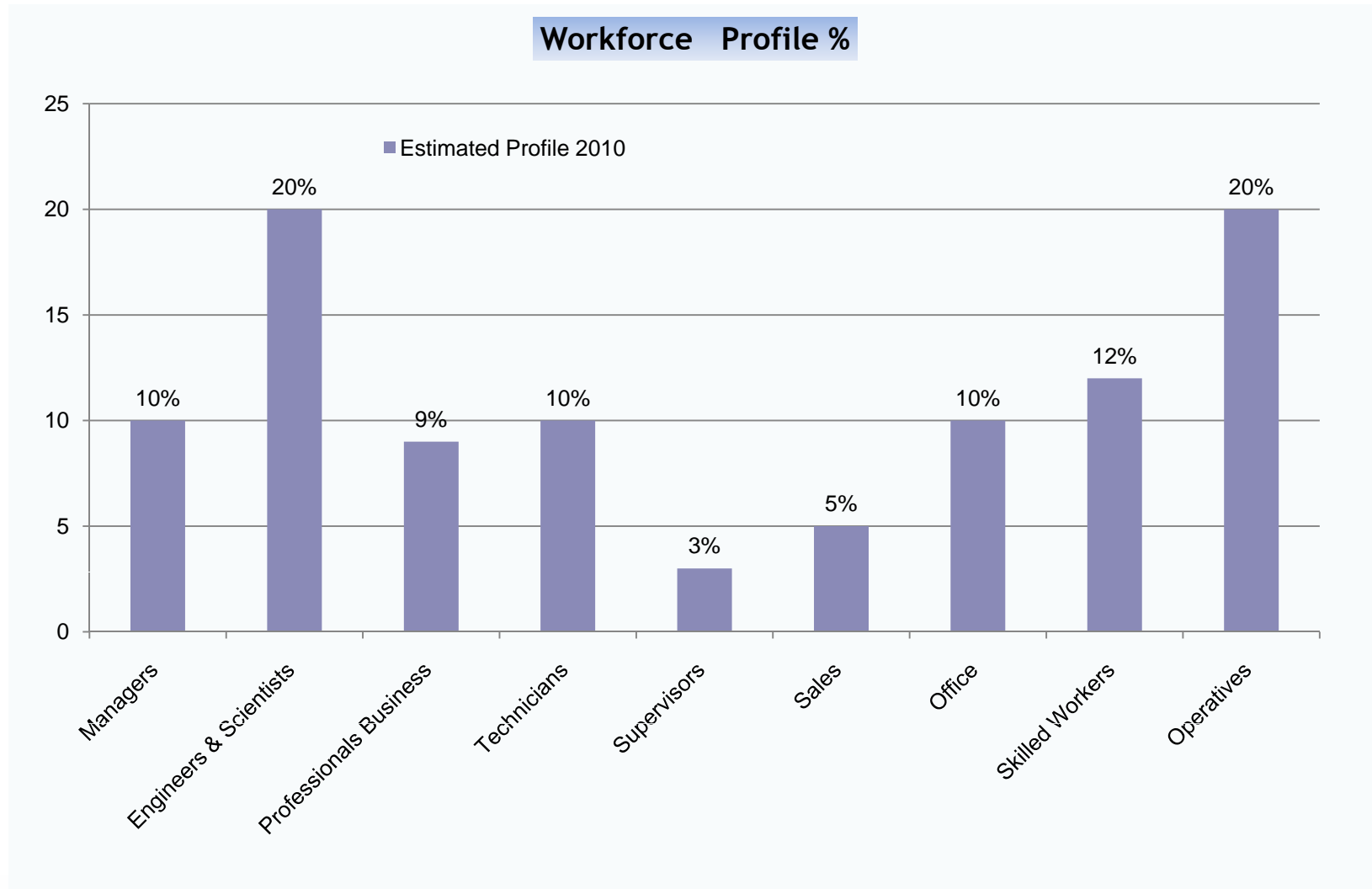
**Efficient Energy Use & Management:** Skilled Workers require system knowledge of full range of energy efficient heating and lighting systems and advising customers on the optimum economic payback

# Key Competency Requirements across Occupations

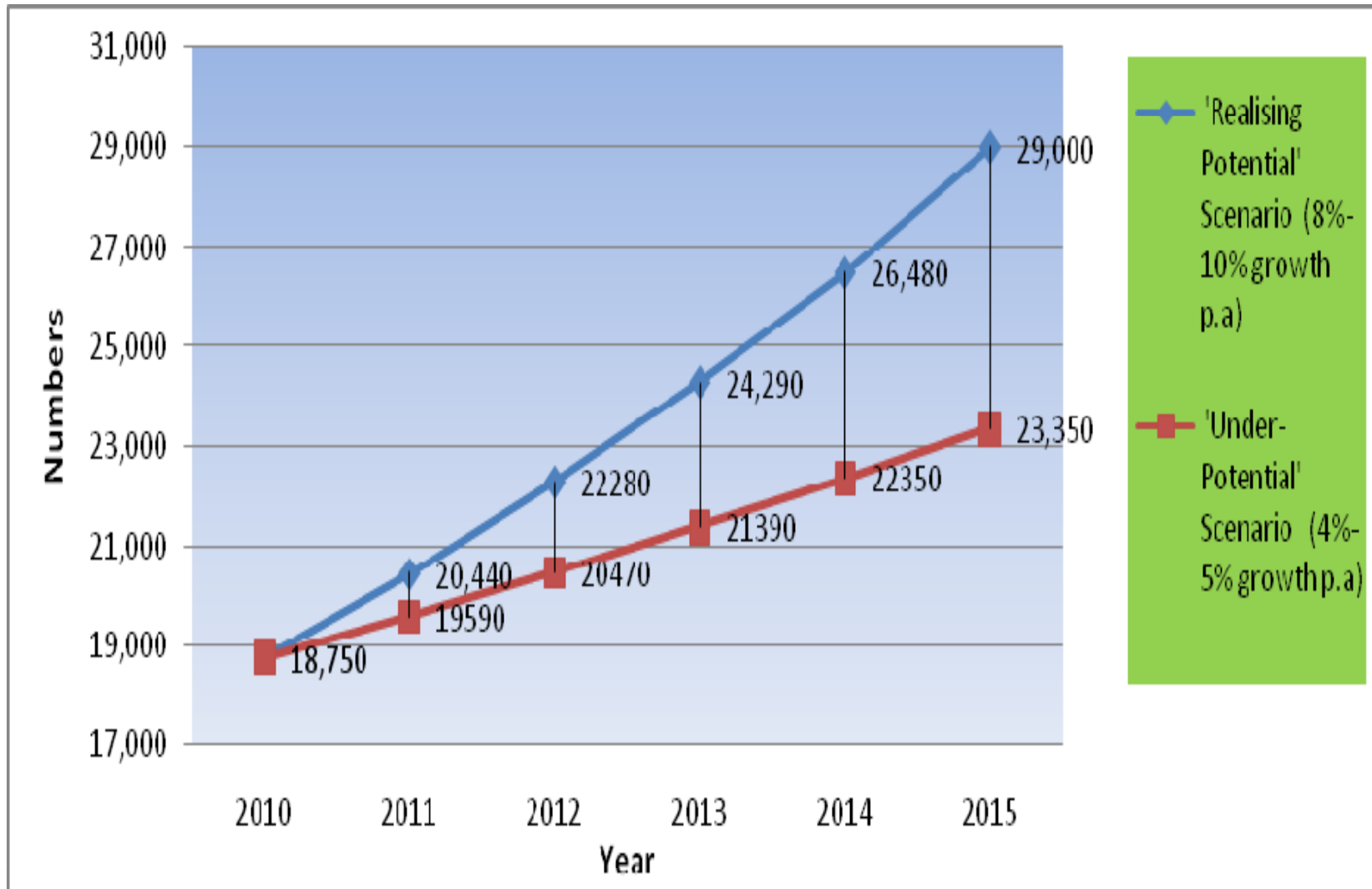




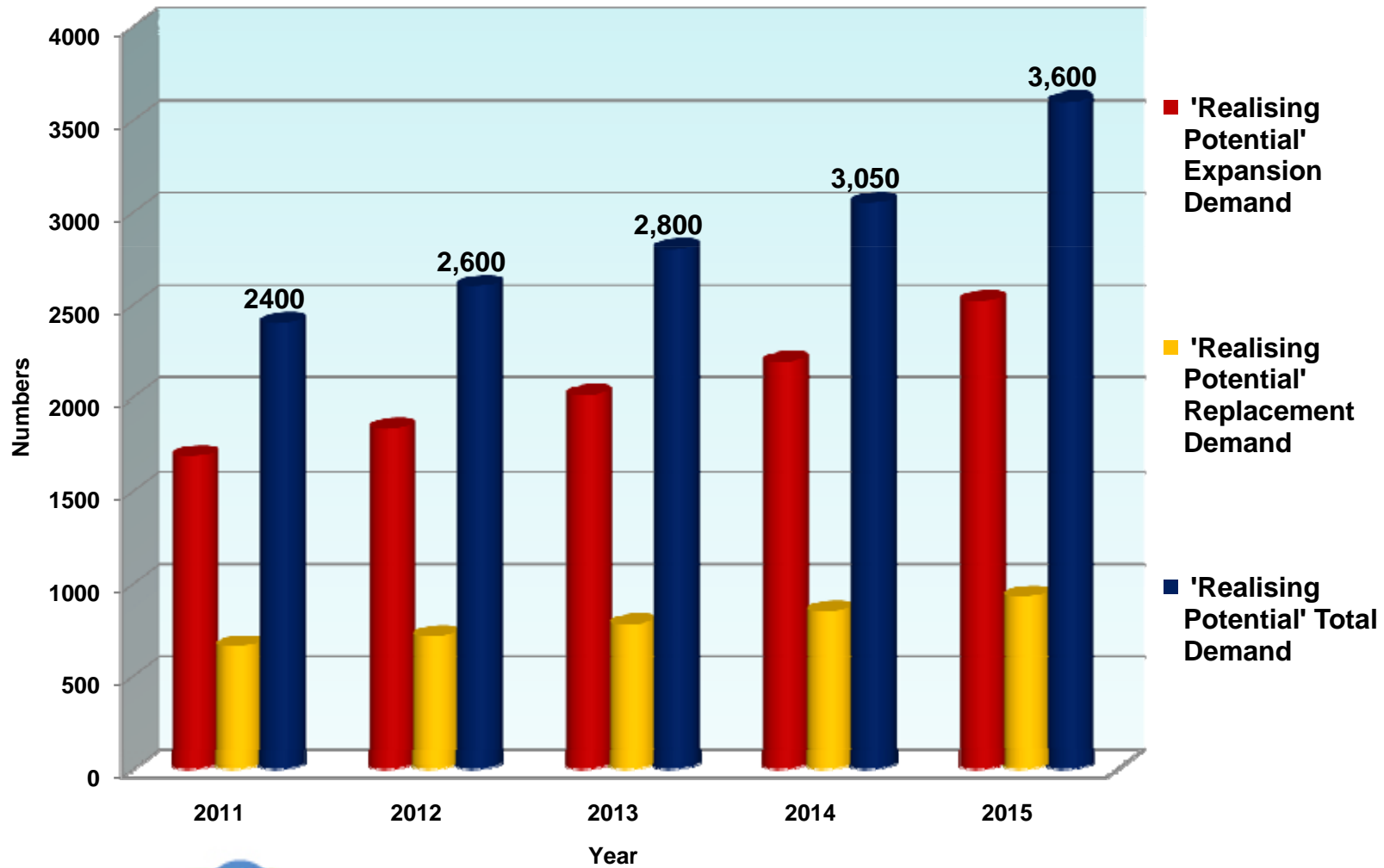
# Estimated Workforce Profile – 2010



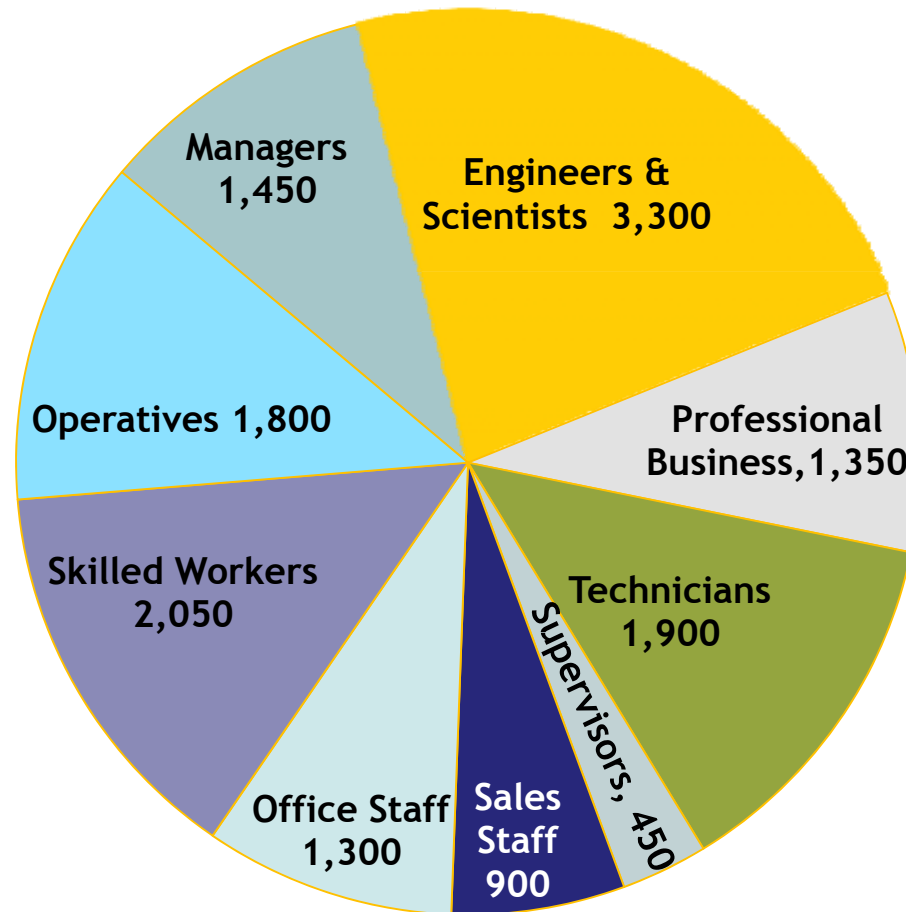
# Anticipated Total Sector Employment – two Scenarios



# 'Realising Potential' Scenario – Anticipated Total Skills Demand



# 'Realising Potential' Scenario – Anticipated Demand by Occupational Group 2010-2015



# Recommendations



## (1) Align Education and Training provision to Enterprise Needs- Optimise the use of existing resources (approx €25m - €30m per annum)

- Focus on the development of core Business/ Engineering/ ICT Skills capability. Acquire specialism knowledge through ‘add-on’ modules within undergraduate programmes and Masters Degrees /Post Graduate Diplomas.
- Build-up expertise within specific education and training institutions for the design of new modules and qualifications - draw upon learning from abroad - then share knowledge within system.
- Strengthen collaboration and links with business around programme provision requirements for emerging skills topics.
- Integrate the development of generic competences into curricula including entrepreneurship, commercial awareness, math proficiency, foreign languages, creativity & innovation, problem solving, communication skills .

# Recommendations



- (2) **Enhance Management Development** - Export Marketing & Sales Skills, Finance , Foreign Languages, Awareness of Cultural Differences, Knowledge of Environmental Regulations and Standards - especially important within indigenous companies
- (3) **Engineers and Scientists** - Focus on the development of Core Business, Engineering and ICT Skills - offer ‘add on’ specialism modules - wind, wave, solar, geothermal, biomass energy. Meet demand for ‘power engineers, and principal researchers to translate research ideas into a business proposition.
- (4) **Develop Technician’s Skills Capability**- electro-mechanical/enhanced ICT skills -high demand re installation and servicing of wind turbines; small scale renewable technologies, electric cars charging points, biomass installations.
- 5) **Develop Sales & Marketing Staff Skills** - re green procurement / foreign languages- meet demand for technical staff to sell internationally

## Recommendations contd..



- (6) **Develop Skilled Workers Capability** - system knowledge of lighting and heating systems. Anticipate demand for 400 jobs arising from installation of water meters. Numbers trained for Building Energy Ratings sufficient.
- (7) **Develop Operatives Skills Capability** - retrofitting - customer service skills - anticipate demand for 100-150 operators in anaerobic digestion.
- (8) **Enhance Graduate Placement & Internship Opportunities** - will improve graduate employability and benefit both the graduate and the student.
- (9) **Communicate Career Opportunities on offer within Sector** - especially to attract more women into STEM disciplines.
- (10) **Enhance Mathematical and Science skills of the Workforce** - key requirements - develop mathematical skills modules at each NFQ levels.