
TUC: Skills for a low carbon future

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Aldersgate Group members



Drivers Jonas Deloitte.



Other members include peers and MPs from all major parties

Big Green Targets

- » 80% CO2 reductions by 2050
- » 50% CO2 reductions by 2025
- » 15% energy from renewables by 2020
- » Smart meters in every home by 2020
- » Zero carbon homes by 2016
- » A zero-waste economy



Golden Opportunity for Growth

- » CBI: Green a vital driver for growth
- » UK £122 billion share £3.3 trillion global market.
- » Employs almost 1 million people.
- » In 2014/15:
 - Expected to roughly halve the UK's trade deficit.
 - A coherent strategy would improve trade balance by £800 million.
 - Uncertainty puts at risk £400 million exports in 2014/15.



Export Growth



Source: Green Alliance

Jobs in the green economy



Low carbon and environmental
939,600



Financial services
1,061,900



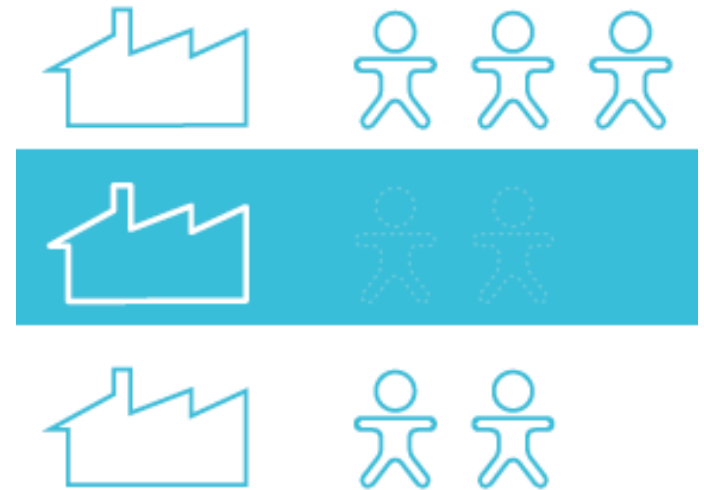
Motor trade manufacture and retail
518,400



Telecoms
212,900

Mind the gap

- » One in three firms in environmental sector hampered by a shortage of skilled staff
- » Latent demand for green skills – needs are not being clearly articulated by employers
- » High proportion of workforce in 2020 already in work & ageing workforce (retire 10 – 15 years)
- » Staff recruitment and retention: e.g. Philips, Interface and National Grid



Major challenges

- » **Core skills** – green sectors
(70,000 engineers in offshore wind by 2020? 9,000 graduates + 4,500 skilled trades in nuclear?)
- » **Enhanced skills** – majority of jobs not entirely new in content (e.g. electricians fitting solar panels)
- » **Generic skills** - communication, leadership and management skills to drive culture change
- » EU systemic weaknesses in its skills base (management and technology) greater concern than ‘new’ skills



Building new skills

Occupation	Upskilling	New occupation
Construction worker	Knowledge of energy systems and data analysis	Energy auditor
Product design and services	Integrating environmental criteria and lifecycle analysis	Ecodesigner
Engineer in energy sector	Installation and maintenance of low-carbon technologies	Smart-energy expert
Commodity trader/Broker	Practical skills on functioning of carbon market	Carbon trader/Broker

Skills for a Green Economy

In most sectors, businesses are not certain about their future skill needs.

This is being addressed by:

- » “Skills for a green economy” initiative
- » Guidance for National Careers Service
- » Improving skills provision in the FE sector
- » Raising awareness through Unionlearn
- » Make STEM a priority
- » 1000 apprenticeships for Green Deal

Skills for a green economy

A report on the evidence



Required policy response

- » Compliment the demand-led skills framework
- » Strategic intervention – Government support for skills and training matches the focus and ambition of its strategies for promoting investment in green innovation and infrastructure.
- » Investment – apprenticeships, training centres, STEM skills.
- » Cross sector approach (e.g. Green Economy Council).
- » Drive demand – policy certainty and coherence.



Skills for a New Economy

- » The education system must evolve to enable learners to grasp 'whole systems' design.
- » Ability to think in a more connective and integrated way.
- » Skills should not be addressed separately in different subjects but should seek to link disciplines together.
- » Leadership skills - pro-active, independent enquirers and highly adaptive.
- » Learning in real contexts that is problem-based, project-centred, peer-to-peer and trans-disciplinary.



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