

Labour Market Exploration:  
EngineeringINDUSTRY  
HEADLINES

Median gross weekly earnings in the engineering sector are **above the national average** – £380 per week compared with £335 per week

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**An increasing number of engineers are women**, who now account for 18% of engineering graduates and 11% of engineering students in colleges of further education

## INTRODUCTION

- Engineering is about designing and creating systems, products and environments – from microchips to bridges! – **their skills are vital in dealing with the challenges of climate change, resource depletion, etc. in the 21st Century**
- Engineers are creatively involved in just about everything we need or use:-
  - *the food we eat* – agricultural, process & chemical engineering
  - *the medical help and treatment we receive* – medical engineering
  - *transport* – civil, automotive, mechanical, aerospace & marine engineering
  - *gas, electricity & telecommunications* – energy, nuclear, communications & civil engineering
  - *computers & DVD/MP3 players*– electronics & computer engineering
  - *entertainment* – sound, lighting & broadcast engineering
  - *materials/substances used in industry*– chemical & minerals engineering

## TRENDS

- It has been estimated that over **320,000 net new workers** will be needed in the industry over the period 2004-14
- It is predicted that the proportion in management and professional level occupations will increase and the proportion in skilled trades and “unskilled jobs” will drop

# INDUSTRY contd.

## HEADLINES

**Lotus have unveiled the Eco Elise** high performance sports car at the 2008 British Motor Show, capitalising on green technology. Sustainable materials – hemp, eco wool, and sisal – have been developed for body panels, which combined with hi-tech water based paint solutions, **illustrate new affordable green technologies**

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**The National Skills Academy for Nuclear** in partnership with the Nuclear Decommissioning Authority (NDA), Serco and SBB Nuclear are rolling out a Bursary award scheme. **The Nuclear sector will need between 5,900 and 9,700 graduates** to meet the requirements of New Build in the future. The NDA's grant of £50,000 aims to encourage and develop the right people and skills to meet the future demand – further information from [www.cogent-ssc.com](http://www.cogent-ssc.com)

## SKILLS

- Skilled people are highly sought after in this industry, especially **those with a strong grasp of new technology** – e.g. for CAD (computer aided design)
- Engineering requires people who like maths and science – engineering is the practical application of science
- An interest in how things work and finding solutions to challenging problems is important
- Engineers are practical – but also need to be able to communicate clearly with their customers and colleagues

## WEBLINKS – including SSC's (Sector Skills Councils)

### Main sources:

- SSC gateway site – [www.sectorcareersinfo.co.uk](http://www.sectorcareersinfo.co.uk) – includes labour market intelligence, curriculum resources, inspirational case studies, role models that challenge stereotypes
- Enginuity – [www.enginuity.org.uk](http://www.enginuity.org.uk) – creative resources bringing real life engineering careers experiences alive
- Jobs4u – [www.connexions-direct.com/jobs4u](http://www.connexions-direct.com/jobs4u) – extensive careers database and a good site for young people
- Learn Direct – [www.learn-direct-advice.co.uk/helpwithyourcareer/jobprofiles/](http://www.learn-direct-advice.co.uk/helpwithyourcareer/jobprofiles/) – over 700 job descriptions & job profiles
- National Guidance Research Forum (NGRF – [www.guidance-research.org](http://www.guidance-research.org) – site developed by the Institute for Employment Research (IER) including labour market trends data & an on-line learning module for LMI
- Prospects – [www.prospects.ac.uk](http://www.prospects.ac.uk) – information for graduates which can help young people consider progression pathways from their Diploma programme



- Careersbox – [www.careersbox.co.uk](http://www.careersbox.co.uk) – a free national careers film library showing films of real people doing real jobs
- Apprenticeships – [www.apprenticeships.org.uk](http://www.apprenticeships.org.uk) – national apprenticeship information in England

### Specialist sources:

**Key:** C – careers information    J – job hunting  
L – learning & training    T – tutor resource

- SEMTA (SSC for Science, Engineering & Manufacturing) [www.semta.org.uk](http://www.semta.org.uk) – C L T
- Scenta - Engineering & Science (includes job profiles & course details) – [www.scenta.co.uk/careers/general.cfm](http://www.scenta.co.uk/careers/general.cfm) – C J L T
- Automotive Skills (SSC) – [www.automotive-skills.org.uk](http://www.automotive-skills.org.uk) – entry and training opportunity information – C J L T
- Cogent (SSC for Oil & Gas, Chemicals, Nuclear, Petroleum and Polymer) – [www.cogent-ssc.com](http://www.cogent-ssc.com) – extensive careers and interactive media site – C L T
- Energy & Utility Skills (SSC for electricity, gas, waste management & water) – [www.euskills.co.uk](http://www.euskills.co.uk) – C L T
- Goskills (SSC for Passenger Transport Industries) – [www.goskills.org](http://www.goskills.org) – C L T
- Engineering Construction Industry Training Board (apprenticeship information) – [www.ecitb.org.uk](http://www.ecitb.org.uk) – L T
- SummitSkills (Building Services Engineering) – [www.summitskills.org.uk](http://www.summitskills.org.uk) – C L T
- The Engineering Council UK (includes downloads on Engineering Technician – [www.engc.org.uk](http://www.engc.org.uk) – C L T
- Women into Science, Engineering & Construction – (careers information for girls, teachers, personal advisers and parents – [www.wisecampaign.org.uk](http://www.wisecampaign.org.uk) - C L T
- Young Engineers (inspirational site encouraging young engineers) – [www.youngeng.org](http://www.youngeng.org) – C L T