

7

Industry Focus

Sector Reports have been produced to help careers practitioners to develop an up to date picture of new and changing occupational areas. It is important that when young people are considering their futures that they are aware of the growth of opportunities within industries related to the STEM sector – **and that even at a time of economic slowdown, STEM industries have skills shortages and a high recruitment demand.**

A series of Industry Focus Reports have been produced to illustrate some of the **exciting opportunities available in industries which young people may not always be aware of.** These industries represent a significant element of the 21st Century employment infrastructure. There are some new, emerging industries but all are based on the traditional strength of UK workforce skills and innovation. Each region in England can illustrate the growth in STEM-related industries, as shown below, and the Industry Reports provide an insight into the opportunities available:-

North West

- Many of the region's most high-profile employers are STEM-related and there are increasing numbers of smaller STEM-related employers in new sectors including nuclear decommissioning and nano-materials.
- The region is also home to a number of research-intensive STEM facilities such as Daresbury Science & Innovation Campus, the Northwest Genetics Knowledge Park and the Dalton Nuclear Institute.

Yorkshire & the Humber

- The heart of the UK's energy sector, with a new Nuclear Advanced

Manufacturing Research Centre being developed in the region which is due for completion by November 2011.

- Priority sectors include Advanced Engineering and Materials, such as the National Metals Technology Centre, and Healthcare Technologies including Meddserve.

North East

- The region's dominance in the biotechnology sector is significant – the number of biotech companies in the region has doubled in three years
- The sector accounts for 58% of the UK's petrochemical industry and 35% of its pharmaceutical output. Example employers include SABIC UK Petrochemicals, and GlaxoSmithKline.

East Midlands

- Within Europe, the region has one of the highest concentrations of aerospace companies, accounting for 15% of the UK aerospace industry. The National Space Centre, based in Leicester, helps to promote careers across the space industry.
- In the pharmaceutical sector, BioCity Nottingham is the UK's largest bioscience innovation centre.

West Midlands

- The West Midlands has the highest proportion of manufacturing companies of any UK region employing 15% of all people employed.
- The region still hosts world-leading automotive companies, such as Jaguar, Land Rover, and Aston Martin, but these have now also been joined by global food and drinks companies and a huge upsurge in new media and digital companies.

East of England

- The region is home to a range of research-intensive STEM facilities, including the Cambridge Science Park, Institute for Food Research, Genome Analysis Centre, and the St. John Innovation Centre.
- The East of England's pharmaceuticals and chemical sectors are the highest-scoring sectors of the regional economy.

London

- London has many businesses that are leaders in their field, such as Heathrow Airport which is regarded as the hub of the aviation world, flying customers to over 180 destinations.
- The biomedical sector is well represented, including employers such as The Biomedical Research Education Trust, Henderson Biomedical, and AstraZeneca.

South West

- Environmental technologies contribute £1,300 million to the regional economy, with the potential to produce another 39,000 jobs, and £670 million. Example employers include Wave Hub, and Solarcentury.
- The second largest sector in the South West is advanced engineering, with aerospace as the largest sub-sector including companies such as Airbus, GE Aviation, and BAE Systems.

South East

- The biomedical sector is well represented including such organisations as the Medical Research Council, GE Healthcare, Johnson & Johnson, and Wyeth Research.

- Over £50 million of funding has been secured for the development of an International Space Innovation Centre, based at Harwell, Oxfordshire. The European Space Agency have also decided to locate at Harwell, so that over the next four years around 1,000 new jobs will be created in the space industry alone.

The National STEM Centre www.nationalstemcentre.org.uk includes information on the STEM business and industry in each region with links to Sector Skills Council websites for further information.

The Industry Focus Reports can be accessed via:-
www.futuremorph.org/careers_staff/careersinformationresourcepack

- The UK Space Industry
- The UK Nuclear Power Industry
- The UK Renewable Energy Industry
- The UK Maritime Industry
- The UK Pharmaceutical Industry
- The UK Food Science & Technology Industry
- UK Built Environment Industry

