

# SW REGION SECTOR SUMMARY

## SEMTA

### SECTOR FOOTPRINT

SEMTA is the Sector Skills Council for Science, Engineering & Manufacturing Technologies which include Aerospace; Automotive; Electrical Equipment; Electronics; Marine; Mechanical Equipment; Metals and Engineered Metal Products; Other Transport Equipment; Tyres (including retreading and rebuilding); scientific occupations such as Research & Development in Pharmaceutical Manufacturing Companies and the application of bioscience for the processing and production of materials, and mathematical based occupations across all of the Science and Engineering sectors listed (<http://www.semta.org.uk>).

Semta has published four Sector Skills Agreements to address the sector's diverse footprint

- Aeronautical, Automotive and Electronics January 2006
- Marine July 2006
- Metals, Mechanicals and Electrical January 2008 (Stage 3 Gap Analysis)
- Bioscience December 2007 (Stage 3 Gap Analysis)

Key themes to address are reflected in section Key Drivers and Issues.

### SEMTA LABOUR MARKET

*Sources: Jobcentre Plus, SSDA web matrix May 07, SLIM SW Skills Balance Sheet June 2008, NESS 2007 data derived from LSC SW research team.*

#### Sector size & business unit size

- Calculated in 2005, 6130 businesses are registered for this sector, which engage approximately 155,000 employees; 41% of these are in advanced engineering roles, 15% in environmental technologies, 8% in bio-technologies and 9% in marine
- This sector represents 6.4% of the total SW workforce
- The SW has 9 of the UK's top 22 aerospace companies
- 'Up to 2014 Working Futures' suggests a loss of 24,000 jobs. However, an additional 45,000 jobs will need to be filled due to replacement demand (people leaving the sector or retiring)
- 77% of manufacturing businesses in the SW employ 10 or less
- 2% of manufacturing businesses employ 200 or more.

#### Profile of workforce

- Age profile of the workforce - 8% is 16-24; 62% is 25-49 and 30% is over 50
- Ethnicity - 98% white
- Gender - 79% male, which has dropped from 81% over recent years
- Occupations - 17% managers, 16% professionals; 23% skilled trades; 17% elementary and machine operators.

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### Vacancies & recruitment

- Employing establishments within SEMTA in the SW reported 2,150 vacancies in 2007, accounting for 4% of the total number of vacancies in the region
- Of those vacancies, 40% were hard-to-fill; this is higher than the overall SW average of 35%
- In 2007 there were 725 vacancies that were as a result of skills shortage, accounting for 34% of all vacancies. Skills shortage vacancies also account for 84% of all hard-to-fill vacancies, which is considerably higher than the SW average of 62%, and the highest of all SSC in the region
- 19% of Semta's employers in the SW reported skills gaps amongst their existing workforce, which is higher than the regional average of 16%.

### Qualifications in the workforce

- 27% are qualified to Level 4 +
- 12% have Trade Apprenticeships as their highest qualification compared to 6% for all industries in the SW
- 16% have qualifications below Level 2
- 7% are without qualifications
- 67% of SEMTA establishments in the SW provided on or off the job training in the 12 months prior to the NESS07 survey; the average for all SW industries is 68%.

### KEY DRIVERS AND ISSUES

- In the SW this sector produced 9.9% of GDP (8.4% nationally)
- Sector Skills Agreements have identified four business skills issues as key priorities – these are incorporated into the SSA and are:-
  - Management & Leadership - Develop frontline managers
  - Productivity & Competitiveness - Supply Chain Development  
Continuous Improvement - Specifically training in “Lean” “6-sigma” and other business improvement techniques; New Product & Process Implementation
  - Technical Workforce Development - Upskill from Level 2 - 3 and Level 4  
Graduate skills deficit and increase graduate population
  - Manpower Planning & Recruitment - Lack of young recruits has initiated development of current workforce (greater productivity per person)
- Advanced Engineering, Marine and Bio-medical sectors are SWRDA priorities
- Science, Technology, Engineering and Mathematics (STEM) has been agreed as an RSP priority and funded support is provided through a project worker who is working with schools, colleges and universities to raise the profile of these subjects
- The SW is a major centre of biomedical research with internationally recognised expertise, employing around 15,000 people in 500 companies. However, employment in the sector is growing faster than the national average with a 48% increase between 1998 and 2004; the sector is working with government to develop growth potential in the sector – Bristol is designated a ‘Science City’ (one of six) to lead in collaboration between employers and science

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- Business Improvement Techniques (BIT) is the preferred qualification across the manufacturing and process industries – this is an NVQ but its achievement will enable the holder to sustain improved manufacturing processes for the employer and so has a direct impact on the productivity and competitiveness of the business. For this reason this qualification is fully supported by the Sector Skills Council and the LSC as the funding body
- SSA states need for
  - Team Leader Qualifications for Managers
  - BIT
  - Bite Sized programmes
- SSA states that the LSC commits to working with Semta to deliver the above through the following:
  - Brokerage Service
  - Continuing Professional Development Standards / upskilling of broker networks
  - Integration of sector diagnostics & passports
  - Management & Leadership Provision
  - liP
  - Small & Medium Sized Enterprise & Large Firm offer

### **(NATIONAL SKILLS ACADEMIES (NSAS) AND CENTRES OF VOCATIONAL EXCELLENCE (COVES) /14-19 DIPLOMAS/HE**

#### **National Skills Academy for Manufacturing (NSAfM)**

The NSAfM was launched October 2007. A regional NSA 'spoke' manager was appointed in May 2007 who works through a Regional Advisory Group, made up of key employers in the region. Swindon College leads the NSAfM provider network for the region.

The spoke manager is responsible for:

- Developing a network of specialist providers, which is led by Swindon College (awarded through an assessment panel) – this will involve meeting stringent quality standards, the first step of which will be to achieve the New Standard Part B (working title) and delivering NSAfM badged courses and qualifications
- Driving up skills capability and capacity of trainers and assessors to deliver the BIT qualifications
- Engaging with employers to support the NSAfM by demanding quality training provision delivered through the academy.

#### **CoVEs:**

- Swindon College (Automotive & Engineering)
- Gloscat (Advanced Engineering)
- Avon Vale (Engineering)
- City of Bristol (Aeronautical, Engineering)
- Brunel Training Group (Engineering)
- Bridgwater College (Automotive Engineering)
- North Devon College (Manufacturing)

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- Yeovil College (Advanced Engineering)
- Plymouth College (Advanced Engineering)
- Cornwall / Plymouth College (Marine Engineering).

### KEY EMPLOYERS

Rolls Royce; Smiths Industries; Airbus; Cobham Industries; MoD; Honda; BMW; Delphi, A&P, Pependennis, DML, Princess Yachts, Sunseeker, Rolls Royce Naval Marine, Hamworthy, BMT

There are many partners in this sector each working with employers to raise the skills in their specific industries– SW Manufacturing Advisory Service; Engineering Employers Federation; Association of Energy Services Professionals, British Marine Federation; West of England Aerospace Forum.

### LOCAL AND REGIONAL PROJECTS/NETWORKS

- **Aerospace Training SW Project** is funded by the RDA which is working to develop a network of training centres to complement existing skills provision in the region and address issues raised in the Semta Sector Skills Agreement . There is a south west aerospace forum <http://www.weaf.co.uk> which is a trade association that champions and supports the interests of the aerospace and defence industry in the South West.
- **Marine SW** project is benefiting from South West RDA investment of £10.5m up to at least the end of 2008; a network of employers and training providers are working together to develop the skills of the sector through Marine Skills Centres in Poole, Falmouth and Plymouth. A sustainability strategy is being developed to take the initiative onward into the future
- **STEM SW** project is funded by South West RDA to develop, coordinate and disseminate information and advice to schools (and partners) in relation to Science, Technology, Engineering and Maths (STEM) in order to increase the number of young people taking and succeeding in STEM subjects at school.
- **SW Bioapproaches** project is supported by South West RDA and aims to
  - identify skills needs
  - establish a SW Biotechnology Education and Training Forum
  - create a recognised, regional 'menu' of provision
  - support the development of graduate level staff
  - raise the awareness and profile of careers opportunities in biotechnology
- **Higher Level Skills Pilot** is a 3 year project funded by LSC nationally. It aims to develop Level 4 and 5 opportunities for employees in SW to experience a bite-sized work-based programme delivered through Higher Education in key areas such as Business Improvement, Creative Industries and Advanced Engineering; this programme is being managed by the Regional Skills Partnership, and universities and colleges, in collaboration with Sector Skills Councils, bid in to deliver a variety of opportunities. A project manager has been appointed to co-ordinate and promote this programme

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- **Manufacturing Skills Alliance (MSA)**

Semta is a member of the Manufacturing Skills Alliance (MSA) with Proskills, Cogent and Improve – a group of SSCs involved in various types of manufacturing. The group meets quarterly in the South West to share good practice and collaborate on relevant initiatives.

The MSA have agreed nationally to work as one to drive through a new approach to its employers to improve productivity, competitiveness and skills in the manufacturing sectors. This is a major undertaking and the result of extensive consultation with employers and stakeholders through the Sector Skills Agreement process and as such forms the main basis of implementing a more demand led system to upskill the industries to meet global competition.

The LSC is funding the MSA to develop the infrastructure in each region to deliver this new approach, which helps the employer to review and refine production processes to gain bottom-line savings. The intervention has given 18 employers in a pilot undertaken in West Midlands an average of £93,000 savings year on year. The outcome impels the employer to upskill the workforce to sustain this level of annual cost savings; it would be at this point that employees are signed up to undertake the Business Improvement Techniques qualification, which has been adapted to suit Proskills business needs.

The approach 'sells' the concept of gaining a return on investment from training and the MSA anticipates a significant increase in take up of BIT. The LSC contract with the MSA sets out an expectation that BIT achievements will increase 8% year on year for the next 3 years, which for the SW will translate into the delivery of an additional 1580 Level 2 and 560 Level 3 qualifications. The majority of these will be achieved in the Semta footprint.

This approach has been adopted by the relevant NSAs and will be reflected in the Train to Gain Sector Compacts currently being negotiated between the SSCs and DIUS. These will be announced by September 08.

The launch to introduce the MSA joint initiative took place in Taunton on 15 May; a series of awareness events for brokers, employers and stakeholders, plus training programmes for provider trainers/assessors and specialist business analysts will take place over the next few months.

Providers will be called to undertake an upskilling programme and achieve the BIT NVQ themselves as part of a robust delivery standard. Over time it is expected that only accredited assessors/trainers will be able to deliver the BIT qualifications.

For more information please contact Jane Bodimeade, [jane.bodimeade@lsc.gov.uk](mailto:jane.bodimeade@lsc.gov.uk)

- **Foundation Degree Forward (fdf)**

FDF is the national body that supports the development and validation of Foundation degrees. It is funded to support employer engagement across higher education programmes generally and Foundation degrees specifically. fdf is currently preparing detailed profiles for each English region, which will be available at <http://www.fdf.ac.uk/>

A Foundation degree course database is available at <http://www.fdf.ac.uk/courses/> users can search for a course by subject area, region, institution or keyword using a

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search facility or they can browse a list of all Foundation degree courses in a particular subject area using general headings.

### SUMMARY OF SUPPLY

*Source: LSC IPOL data (ILR extract)*

Analysis of further education and work based data by Sector Skills Council footprint is not yet available for 2006/07. The data presented below relates to Train to Gain activity which can, in most cases, be attributed to a specific sector.

<b>SEMTA Starts 06/07</b>		
Starts	NVQ in Business-Improvement Techniques (likely all these delivered in Semta footprint)	262
	NVQ in Engineering Maintenance and Installation	17
	NVQ in Fabrication and Welding	4
	NVQ in Fabrication and Welding Engineering	20
	NVQ in Metal Processing and Allied Operations	10
	NVQ in Performing Engineering Operations	12
	NVQ in Performing Manufacturing Operations (total starts across 5 manufacturing sectors = 504 Semta estimated to have 80%)	400
	NVQ in Processing Operations for the Extractive and Minerals Processing Industries	23
	NVQ in Technical Services	27
<b>Total Starts</b>		<b>775</b>

### Adult Level 2 and Level 3s delivered through Train to Gain

By the end of the academic year to July 2007, Engineering and Manufacturing Technologies accounted for 1478 starts, 10% of the total, of which 300 were Business Improvement Techniques delivered by six providers.

NB: these volumes are cross all manufacturing sectors and cannot be attributed to Semta footprint alone.

### SUMMARY OF DEMAND

The SSC has consulted with employers through the Sector Skills Agreement process and as a result has produced a Career Progression Route Chart, which sets out by type and level the variety of routes to skills and qualifications. This chart is accessible through Semta website at <http://www.semta.org.uk/PDF/progmap%2001a.pdf> and has information sheets for each level and qualification embedded within the relevant cell.

### Preferred Qualifications

As with all SSC, Semta has developed its Sector Qualification Strategy and implementation plans are currently being formalised with the new Council for Employment and Skills. Their strategy links to the key messages from the Sector Skills Agreements for each of their sub sectors and Semta have been awarded funding by government to develop a raft on new qualifications and curricula materials to meet employer needs – eg: Composite NVQ to support major new contracts for building wings for Airbus 330 etc.

The BIT NVQ is being reviewed and it is likely that the assessment requirements will include minimum levels of industry experience and qualifications for all trainers and assessors.

## **SW REGION SECTOR SUMMARY SEMTA**

Providers may want to prioritise their development for delivery of:

- Diplomas (14-19) for Engineering and Manufacturing
- NVQ in Business Improvement Techniques, Level 2 and 3
- NVQ in Laboratory & Associated Technical Activities Level 3
- Supervisory Management

### **Further Information**

Providers should be encouraged to contribute to the development of a regional specialist network of providers, led by the NSA for Manufacturing which to date has signed up 12 providers who are working to accredit their assessors and trainers to meet the NSA standards for delivery and to sign up for assessment against the Training Quality Standard both of which are requirements of membership.

September 2008 will see the launch of the first 14 to 19 Diplomas in Engineering, and from September 2009, in Manufacturing. The LSC will expect the provider specialist network to influence and support these in their development and implementation.