

SW REGION SECTOR SUMMARY COGENT

SECTOR FOOTPRINT

Cogent is the Sector Skills Council for the chemical, pharmaceutical, nuclear, oil and gas, petroleum and polymers industries (www.cogent-ssc.com).

Skills Qualification Strategy was published in October 2007 with an Action Plan to take which covers the 12 month period to January 2009. It includes detailed qualifications reform and a series of partnership projects with NSAs for Process Industries, NSA for Nuclear, the LSC, Regulatory Bodies, Awarding Bodies and other stakeholders. Key outcomes will be the creation of new modular qualifications, as well as the accreditation of employer training and the development of foundation degrees.

COGENT LABOUR MARKET

Source: APS Cogent SSA Consultation July 2007; (Labour Force Survey (q1 2005 – q2 2005); SLIM SW Sector Balance Sheet June 2008; NESS 2007 data derived from LSC SW research team.

Sector size & business unit size

- The sector represents 6 % of the UK sector total and 1.4% all SW employment.
- The sector output (GVA) per employed job is high (nationally at 85.5 compared to that of whole economy at 30.2) – and significant in the SW.
- There was a 18% drop between 1998 – 2003 in this sector of employment in the SW.
- Forecasts of employment growth 2004-2014 suggest that there will be a loss of 4,000 jobs. However, an additional 11,000 jobs will need to be filled due to replacement demand (people leaving the sector or retiring).
- Just fewer than 60% of employees are employed in firms employing more than 50.

Profile of Workforce

- The workforce is predominantly white (97-98%).
- 76% of the workforce is male compared to 53% for the SW as a whole.
- 22% of the workforce is aged over 50 compared to a regional average of 30%.
- The vast majority of the sector are employees (95%) rather than self-employed (5%).
- 95% of the workforce are full-time employees, 95% compared to 71% for industries as a whole in the SW.
- 75% of those SW sector employers consulted reported none of their workforce speaks English as a second language.

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Vacancies & recruitment

- Employing establishments within Cogent in the SW reported 1,075 vacancies in 2007, accounting for 2% of the total number of vacancies in the region.
- Of those vacancies 32% were hard-to-fill, a marginally smaller proportion than seen for the SW as a whole (35%).
- In 2007 there were 225 vacancies that were as a result of skills shortage accounting for 21% of all vacancies. Skills shortage vacancies also account for 65% of all hard-to-fill vacancies, marginally higher than the SW average of 62%.
- 20% of Cogent establishments in the SW reported skills gaps within their workforce compared to an average of 16% for the SW as a whole.
- Skills gap as proportion of employment: 7%.

Qualifications of the Workforce

- 30% of the workforce is qualified to Level 4+ in line with the average for the SW as a whole.
- 17% to Level 3 % and 14% to Level 2. 6% hold trade apprenticeships as their highest qualification.
- Almost 17% of the workforce are qualified to Level 1, a marginally higher proportion than for the SW as a whole (15%). 11% hold no formal qualifications higher than the average for the SW of 8%.
- 73% of establishments in the SW arranged training for employees in preceding 12 months, which is slightly higher than the national average of 71%.
- 70% of Cogent establishments in the SW provided on or off the job training in the 12 months prior to the NESS07 survey, marginally higher than the average for all industries as a whole in the SW (68%).

KEY DRIVERS AND ISSUES

Sources: Cogent SSA Consultation July 2007, NSA-Nuclear Business Plan, NSA-Process Industries Business Plan

Five key factors are driving change in the Cogent industries:

1. Legislation
2. Economic
3. Social
4. Technology
5. Environment

The need for de-commissioning a number of ageing Nuclear facilities in the SW means that the companies responsible face the challenge of retaining, retraining and recruiting and training additional numbers of appropriate staff to oversee the decommissioning and clean-up process through to completion.

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Cogent reports an occupational shift in the SW that will be significant over the next 10 years. It estimates an increase in Management occupations from a 14% share of employment to estimated 17% and in the same period for the proportion of operatives in the region projected to decline from a 17% share to estimated 11%. This is a 6% reduction within 10 years. The replacement demand will be significant in this period due to the ageing workforce.

Common issues for all the Cogent industries include improving their attractiveness to young people and ageing workforces, coupled with difficulties in recruiting highly skilled managers, engineers and technicians for an industry hazardous in nature. They also require high levels of standards-based training to meet the needs of regulation and of operating in challenging and often hazardous environments, and have concerns regarding standards of the mobile workforce in the industry supply chain, and the lack of clear standards for contractors in a number of the Cogent industries.

Current provision does not adequately support the development of skills sets for the emerging roles in the industry, does not encourage SMEs to engage and does not facilitate the transfer of skills between sites, companies and industry sectors.

The 2012 Olympics is having an impact by attracting qualified labour from this sector to London, exacerbating issues already stated above.

The SSA identifies the following main priorities:

- Productivity – a quantified gap at Level 2 and Level 3 across the majority of the sector
- Attractiveness – significant concern regarding the inflow of skills to meet future demand exacerbated by a significantly ageing workforce
- Innovation – need to innovate in both products and processes to compete
- Management and Leadership – required to drive forward improvement and change required.

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

National Skills Academy for Nuclear (NSA-N)

The employer-led proposal submitted in May 2007 has gained approval from the Department for Innovation, Universities and Skills (DIUS). And was launched during the Autumn 2007. The first year will be taken up with developing the infrastructures to ensure high quality and innovative skills training in the region and raising brand awareness with employers and stakeholders. The first raft of qualifications is likely to be delivered through the NSA specialist network of providers during 2008/09. It will roll out the new qualifications focussed on the main skills gap areas e.g. NVQ in Decommissioning & Radiation protection, Foundation Degree in Decommissioning and Related Technology.

The target groups are in: Fuel reprocessing, Decommissioning & Clean Up, Defence, Power Production, Nuclear New Build and Waste Management.

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Bridgwater College has been appointed as the coordinating hub for the SW Regional Training Cluster and has submitted a capital proposal to the LSC and RDA for an Energy Centre to be developed on its Cannington site.

National Skills Academy for Process industries (NSA-PI)

The NSA for PI was formally launched in January 2008. The focus in year one will be on activity in the North East, North West, Yorkshire, Humberside and East & West Midlands, with work to establish a South West hub set out for year two.

14-19 Diploma Development

Cogent is part of the cluster of sectors working on the Engineering Diploma led by SEMTA and on the Manufacturing Diploma led by Improve. Engineering to be available from 2008 and Manufacturing from 2009.

HE activity

Higher Education and vocational routes into Higher Education are important to the Cogent industries which are all science based, involve chemical transformation and are process technology driven.

Cogent is actively engaged with the Higher Level Skills Pathfinder Project in the SW with interest in the 'Engineering theme' and representation on the steering group.

One specific project concerning composites involves Yeovil College, Bath University and two significant employers in the region.

KEY EMPLOYERS

Sources: SSSA skills matrix Cogent 2007; NSA-N Business Plan; NSA-PI Business Plan

Employers in the SW account for approximately 12% of Cogent employers nationally. The majority are SMEs, with 73% employing 1-10, 20% employing 11-49, 5% employing 50-199 and 2% employing 200+.

The Nuclear Industry is dominated by a small number of large employers operating the sites, supported by a number of employers in the supply chain. Petroleum (includes distribution to pump) and Polymers are also important, making up a large proportion of the SME number. Chemical and Pharmaceuticals companies are often the local sites of large multinational corporations.

- Clusters of chemical companies at Avonmouth
- Nuclear along Severn Estuary at Hinkley Point A (generation), Oldbury (decommissioning), and Berkley (decommissioning) along with the MOD nuclear submarine site at Devonport, Plymouth
- Petroleum fuel service stations (two broad groups - independent SMEs and large supermarket chains)
- Contract and project management industry associated with all sub sectors.

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Key employers in the region include British Nuclear Group, British Energy, Magnox South, Devonport Dockyard, AMEC, Alpharma Ltd, Astra Zenica, Avon Rubber plc, Rhodia.

Summary volumes for industries in the South West:

- Nuclear: 54 businesses with 7,000 employees at operator sites and 3,000 employed in the supply chain
- Chemicals manufacturing and Processing: 210 employers with 6,500 employees
- Pharmaceutical Manufacturing: 45 employers and 3,800 employees
- Polymers Manufacturing and Processing: 675 employers with 13,700 employees
- Oil and Gas: no figure for employers, 3,420 employees
- Petroleum: 580 employers with 9520 employees.

LOCAL & REGIONAL PROJECTS/NETWORKS

Cogent is a member of the Manufacturing Skills Alliance (MSA) with Semta, Proskills 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 upskills 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 saving year on year. The outcome impels the employer to upskill his 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. 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 L2s and 560 L3s. The majority of these will be achieved in the Semta footprint; Cogent proportions are likely to be approximately 5% of the L2s and 15% of L3s.

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

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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 to 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.

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.

Table 1

Cogent Starts 06/07		
Starts	NVQ in Polymer Processing and Related Operations	81
	NVQ in Processing Operations for the Extractive and Minerals Processing Industries	23
Total Starts		104

Tables 2 and 3 show supply side information gained from *Final Draft Cogent SQS & LSC National 2005/06* data supplied to Cogent. Original base data source is LSC National Office ILR data for 2005/06

Table 2 Funded 'Further Education' Provision, South West

	All Industries	Process Industries	Packing Technologies	Engineering Technologies
Level 1	1181	393	0	0
Level 2	6886	632	0	0
Level 3	7766	0	0	528
Level 4	137	0		
Level unknown/not assigned	Oil & Gas Industries: 85			

Table 3 Funded 'Work Based Learning' Provision, South West

	All Industries	Process Industries	Packing Technologies	Engineering Technologies
Level 1	1	1		
Level 2	4592	534		
Level 3	5373	181		203
Level 5	3			

SUMMARY OF DEMAND

Sources: Proposals for a Cogent Industry Skills Action Plan; NSA-N Business Plan; NSA-PI Business Plan

Cogent has identified that skills gaps are worse in the Cogent sector than in UK business as a whole. The main problem areas are in technical skills and in core

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behaviours such as communications, business improvement, customer service and team working.

Specifically for the Nuclear industry in the SW, the NSA-Nuclear business plan sets out the following projections on need for next five years as:

- Apprenticeship – Engineering Framework with nuclear ‘top up’ (top up currently being developed in Cumbria) Mechanical, Electrical, Control & Instruments, Science: 75 in year one then 90 per year thereafter
- Engineering NVQ level 4: 150 per year from year three onwards
- Nuclear Decommissioning NVQ Level 2/Level 3: 150 per year
- Radiation Protection Course at Level 2 or Level 3: 150 per year
- Safety Case Preparation at level 4: 18 per year from year two onwards
- Foundation Degree in Nuclear decommissioning: 15 per year
- Project Management (specific needs under review as part of Cogent’s SQS work): 45 in year one then 100 per year
- Unescorted Worker Access qualifications for new and transient employees
- Numerous specialist courses required by the industry which over time will be incorporated into Academy framework
- Basic Skills: Business Plan recognises a need – yet to be quantified in detail.

For the Process Industries, the NSA business plan sets out the shortfall in the SW as being 1200 (520 Chemical/Pharmaceutical, 680 Polymer) at Level 2 and 1600 (690 Chemical/Pharmaceutical, 910 Polymer) at Level 3.

The list below is of currently known preferred qualifications for the Cogent Industries. All are a priority nationally for Cogent; require replacement of the existing qualification (direct 1:1); have July 2007 as the indicative last start date for the existing qualification; have July 2008 as the indicative last date for learner completion; have August 2008 as the implementation date for the replacement qualification (Source: Cogent, Lindsay Mennell, Stakeholder & Policy Manager, Oct 2007).

List Number	Existing Qual Reference Number	Qualification Title	Level	With Whom (Other SSCs and the ABs Involved) 3	Intended Purpose / Target Audience

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1	100/3453/0 100/3946/6	Chemical, Pharmaceutical and Petrochemicals Operations NVQ	Level 1	VQSET City and Guilds	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
2	100/4829/7 100/4652/5	Process Engineering Maintenance NVQ	Level 2	CG VQSET	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
3	100/3454/7 100/3947/8	Chemical, Pharmaceutical and Petrochemicals Operations NVQ	Level 2	CG VQSET	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
4	262273	Intermediate Award in Composite Material Production	Level 2	Edexcel	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
5	49436	Intermediate Diploma in Process Operation	Level 2	Edexcel	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
6	100/5390/6	Certificate in Process Technology	Level 2	CG	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
7	100356	National Certificate in Engineering (Plant and Process Plant)	Level 3	Edexcel	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
8	100357	National Certificate in Engineering (Process/Plant/Instrumentation)	Level 3	Edexcel	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
9	250685	National Certificate in Polymer Technology	Level 3	Edexcel	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
10	100401	National Certificate in Science (Polymer Technology)	Level 3	Edexcel	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
11	119470	National Diploma in Engineering (Plant and Process Plant)	Level 3	Edexcel	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
12	204641	National Diploma in Polymer Technology	Level 3	Edexcel	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
13	100547	National Diploma in Science (Polymer Technology)	Level 3	Edexcel	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
14	100/4830/3 100/4653/7	Process Engineering Maintenance NVQ	Level 3	CG VQSET	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
15	100/3455/9 100/3948/X	Chemical, Pharmaceutical and Petrochemicals Operations NVQ	Level 3	CG VQSET	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework

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16	100/5391	Certificate in Process Technology	Level 3	CG	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
17	100/1722/7	NC in Operations and Maintenance	Level 3	Edexcel	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
18	100/1721/5	ND in Operations and Maintenance	Level 3	Edexcel	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
19	100/3456/0 100/3949/1	Chemical, Pharmaceutical and Petrochemicals Operations NVQ	Level 4	CG VQSET	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
20	100/2505/4 100/4877/7	Refinery Field Operations NVQ	Level 3	CG VQSET	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
21	100/2506/6 100/4876/5	Refinery Control Room Operations NVQ	Level 3	CG VQSET	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
22	Q1026820	Radiation Protection NVQ	Level 2	CG	Will be part of the Cogent Apprenticeship Framework/Will be part of Nuclear Industry Credit Framework
23	500/1433/X	Nuclear Decommissioning NVQ	Level 2	CG	Part of the Cogent Apprenticeship Framework/Will be part of Nuclear Industry Credit Framework
24	TBC	Radiation Protection NVQ	Level 3	CG	Will be part of the Cogent Apprenticeship Framework/Will be part of Nuclear Industry Credit Framework
25	TBC	Nuclear Decommissioning NVQ	Level 3	CG	Part of the Cogent Apprenticeship Framework/Will be part of Nuclear Industry Credit Framework
26	100/2693/9	Radiation Protection NVQ	Level 4	CG	Will be part of the Cogent Apprenticeship Framework/Will be part of Nuclear Industry Credit Framework
27	100/5046/2	Polymer Processing and Related Operations	Level 1	SASL	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
28	100/5047/4	Polymer Processing and Related Operations NVQ	Level 2	SASL	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
29	100/5048/6	Polymer Processing and Related Operations NVQ	Level 3	SASL	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
30	100/2997/7	NC in Polymer Processing & Materials Technology	Level 3	Edexcel	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework

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31	100/2996/5	ND in Polymer Processing & Materials Technology	Level 3	Edexcel	Part of the Cogent Apprenticeship Framework/Will be part of Process Industry Credit Framework
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