



Skills Oracle 2010

The Chemicals Industry

June 2010

Cogent Sector Skills Council Skills Oracle 2010

Skills Oracle Report for the Chemicals Industry

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June 2010

Note that in some instances responses apply to a single site rather than as the company as a whole.



1.0 Executive Summary

This report reproduces some of the industry wide findings from the Skills Oracle survey for 2009, and follows the broad format of the individualized reports supplied to participating employers, but without the benchmarked company data.

The headline findings for the Chemicals industry are:

1. Annual average company turnover in employment is approximately 13%.
2. 55% of chemicals employers report craft and technician vacancies are 'hard to fill'.
3. Annual training budgets average £680 per employee. In addition to this companies may incur additional cost such as travel, subsistence, internal training and mentoring, the maintenance cost of training facilities as well as maintaining productivity during training.
4. Chemicals employers were satisfied with the coverage of qualifications across the sector. Satisfaction ratings were highest for the use of 'Competence Based' qualifications, and 'Academic' qualifications
5. Health, Safety and Environment (HSE) was the most frequently reported training undertaken, when viewed across both internal and external training requirements. Chemicals companies tended to resource externally for specialist training needs, such as, 'Technical', 'HSE', and 'Professional'.
6. 100% of chemicals employers use 'Private Training' providers; 63% use 'FE' providers; and 38% use 'HE' providers.
7. For private training providers, satisfaction levels tended to be extremely high in all areas of; 'Cost'; 'Location of Training'; and 'Quality of Trainers'. This reflects the highly tailored provision offer by private training providers.
8. The satisfaction ratings for FE and HE were significant (ranging between 56% and 83%), with the lower of these ratings referring to location and flexibility of training. This suggests that while employers value such provision, there is scope for FE and HE to innovate in flexible and accessible provision, and that there is a role for the Sector Skills Council in facilitating this.
9. The majority of Chemicals employers (80% and 73% respectively) place a high level of importance on the supply of Apprentices and Graduates to their workforce (17% of the skills supply recruited were Apprentices; 6% of the skills supply recruited were Graduates).



10. Competence based and Technical training of the existing workforce was reported by 88% and 69% of chemicals employers respectively, while 75% of chemicals employers invested in Professional/Higher Level training of the workforce.

11. 75% of chemicals employers reported skills gaps among existing employees had 'some impact'; and 50% of employers reported that the shortage of skilled individuals when recruiting has had 'some impact' on business performance.

12. 63% of chemicals employers report that competence based skills needs have increased in the 12 months preceding the survey. Employers expected the demand for competence based skills, leadership and management and technical level skills to increase in the 12 months following the survey.

13. Looking ahead, Chemicals employers were split in concluding that the economic situation for their businesses would 'improve' (31%), 'remain static' (13%), or 'worsen' (44%) within the year. 13% of chemicals employers were undecided.

14. Most Chemicals employers predicted 'no significant change' or a 'decrease' in employment in the short term (2 years ahead) and long term (5 years ahead).

15. Securing funding and improving access to training providers and courses are viewed by chemicals employers as the highest priorities for a Sector Skills Council.

**Should you wish to take part in the next Skills Oracle survey 2010 please email
Julie Plumbley at: julie.plumbley@cogent-ssc.com**



2.0 “Skills Oracle”: Primary Labour Market Intelligence (LMI)

During 2009 Cogent implemented ‘Skills Oracle’, a unique, online project surveying, over time, a significant and consistent sample of employers in each of the Cogent industries. The project collates annual returns from a large employer panel, via a web based questionnaire, to generate primary Labour Market Intelligence (LMI).

This in turn will lead to:

- a **skills ‘ftse’** – an index that is a barometer of skills in the sector
- a **skills benchmark** – a collective measure against which employers can assess their skills position in relation to other companies
- a **skills voice** – a report of measures and opinions, supported by a body of evidence from a substantial and consistent expert panel of employers

The survey generates two distinct outputs. Firstly, it provides Cogent with valuable LMI not captured by national data sources, which will provide sector skills data through factsheets and extended reports. Secondly, those completing the survey receive a bespoke benchmarked analysis against returns for their industry. This will then enable companies to:

- identify ‘Hot Spot’ areas – for example, of excellence or, conversely, under provision
- identify areas of similarity and difference within the industry, and across the Cogent footprint
- identify areas where new and improved business processes can be implemented

3.0 The Chemicals Sector

This section portrays the company results alongside the Chemicals industry generally and the Cogent sector, based on data collected during quarter 4 2009.

A 40% return delivered 69 respondents from companies across the five Cogent sectors¹ (figure 1). Chemicals made up 23% of the sample of employers, with various sectors of Chemicals represented.

3.1 Chemicals Industry and Employment

Chemicals sites in the main were medium to large with 51 employees or over, with 41 industrial sites across the UK represented (see figure 2 for the reported number of sites and companies across the Cogent footprint).

The Chemicals sites that responded to the survey collectively employed 4,200 people and 50,000 people worldwide.

By the UK employee measure, the survey represents of the order of 3% of the Cogent Chemicals UK workforce² and 1% of the Cogent UK workforce of 550,000 employees³.

These Chemicals sites reported, on average, employing 265 people, with a maximum of 1,100 and a minimum of 35.

¹ Chemicals, Pharmaceuticals, Nuclear, Petroleum and Polymers – not including Oil & Gas or Petroleum Forecourt Retail

² Cogent Chemicals Fact Sheet (2007)

³ Cogent Industry Fact Sheets (2007) – excluding Oil & Gas and Petroleum Forecourt Retail



Figure 1: Respondents by Industry

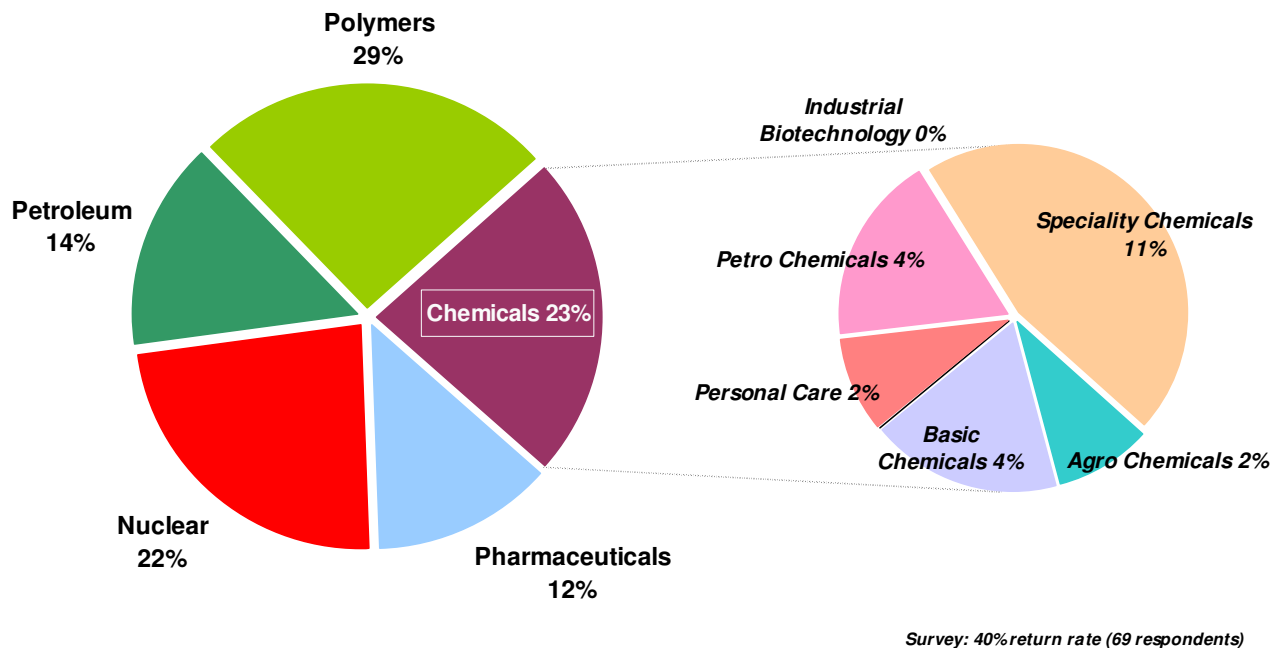
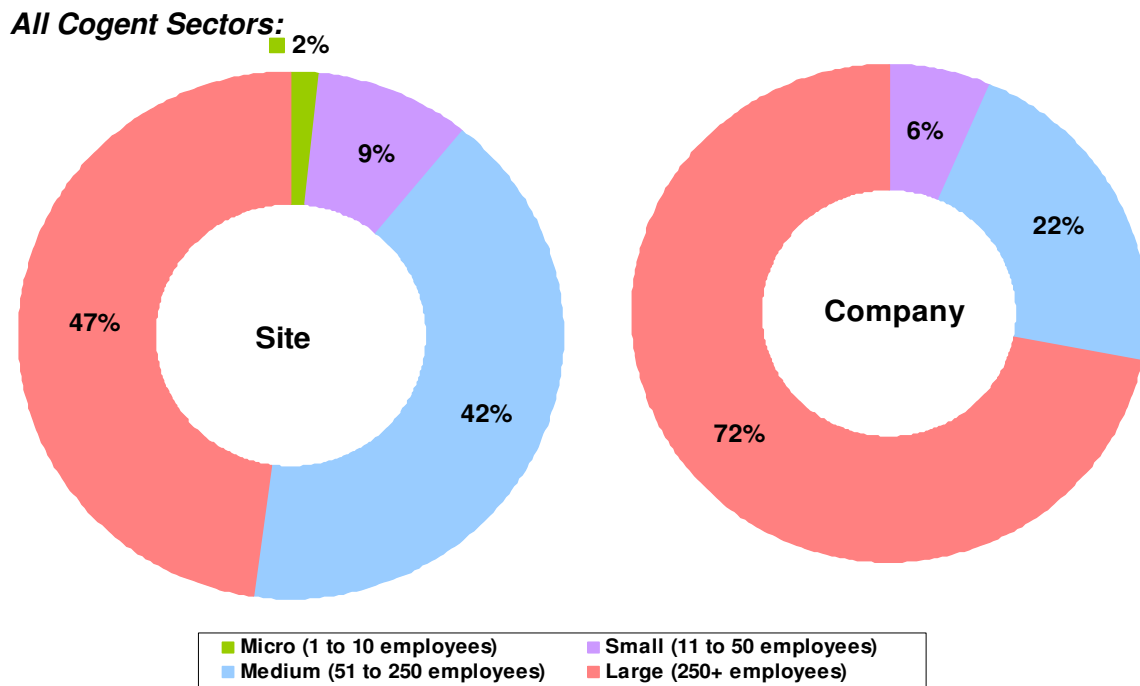


Figure 2: Cogent Respondents by Size of Employer



3.2 Recruitment and Staff Turnover

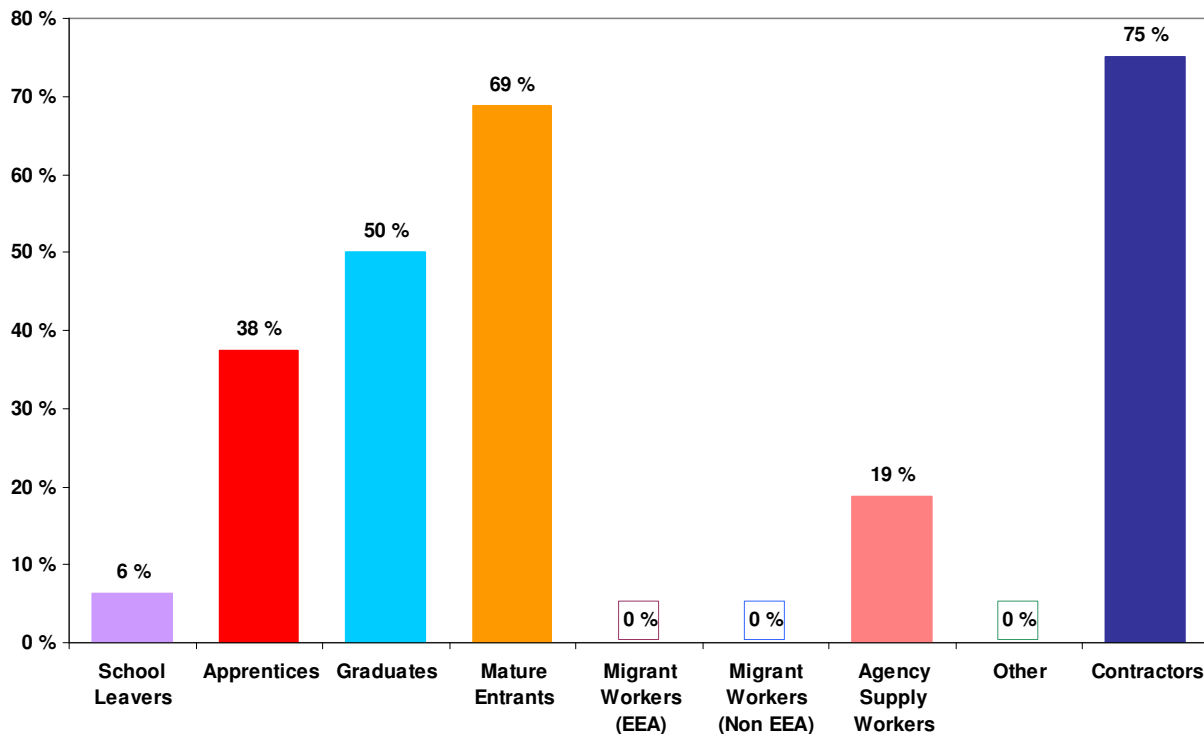
In total for the survey, 210 people were recruited. In addition at least 350 were employed via contractors. The main recruitment routes into the sector were surveyed according to the categories of: 'Mature Entrants' (69%), 'Graduates' (50%) and 'Apprentices' (38%). Across the sector, 75% of employers reported dependence on contractors for routine operations (figure 3 displays the proportion recruited in the Chemicals sector).

For the Chemicals sites surveyed, the proportion of those employed directly suggests an annual sector turnover of 13%⁴ in employment. Analysis of the entrants and leavers by occupation gives a profile of *in-demand occupations*.

On the whole, Chemicals sites reported losing more employees than recruiting, with a decline reported across all occupations, particularly in Operations and Productions (figure 4 displays employment turnover).

Vacancies for 'Craft and Technician' were reported by 55% of Chemicals employers as the most 'hard to fill', followed by 'Professional Scientists and Engineers' (46%), 'Commercial and Marketing' (38%) and 'Operations and Productions' (18%) occupations. 'Managers' and 'Administration and Secretarial' occupations were not reported as being 'hard to fill' (figure 5 displays reported hard to fill vacancies by occupation).

Figure 3: Proportion Recruited by employers across the Chemicals Sector



⁴ Calculated using the number of those recruited and those leaving the Chemicals sector (n=557)



Excluding Contractor recruitment, the inflow of employment indicated that most Chemicals companies recruited Mature Entrants (45%) and Agency Supply Workers (29%). The smallest proportion recruited by Chemicals companies were School Leavers (3%).

The inflow and outflow of employment are charted below (figure 6).

The outflow of employment was recorded in categories of 'Retirement', 'Redundancies' and 'Other'. Most Chemicals employers listed 'other' as the main departure route for employees (47%), followed by redundancies (31%) and retirements (22%).

Figure 4: Employment Turnover

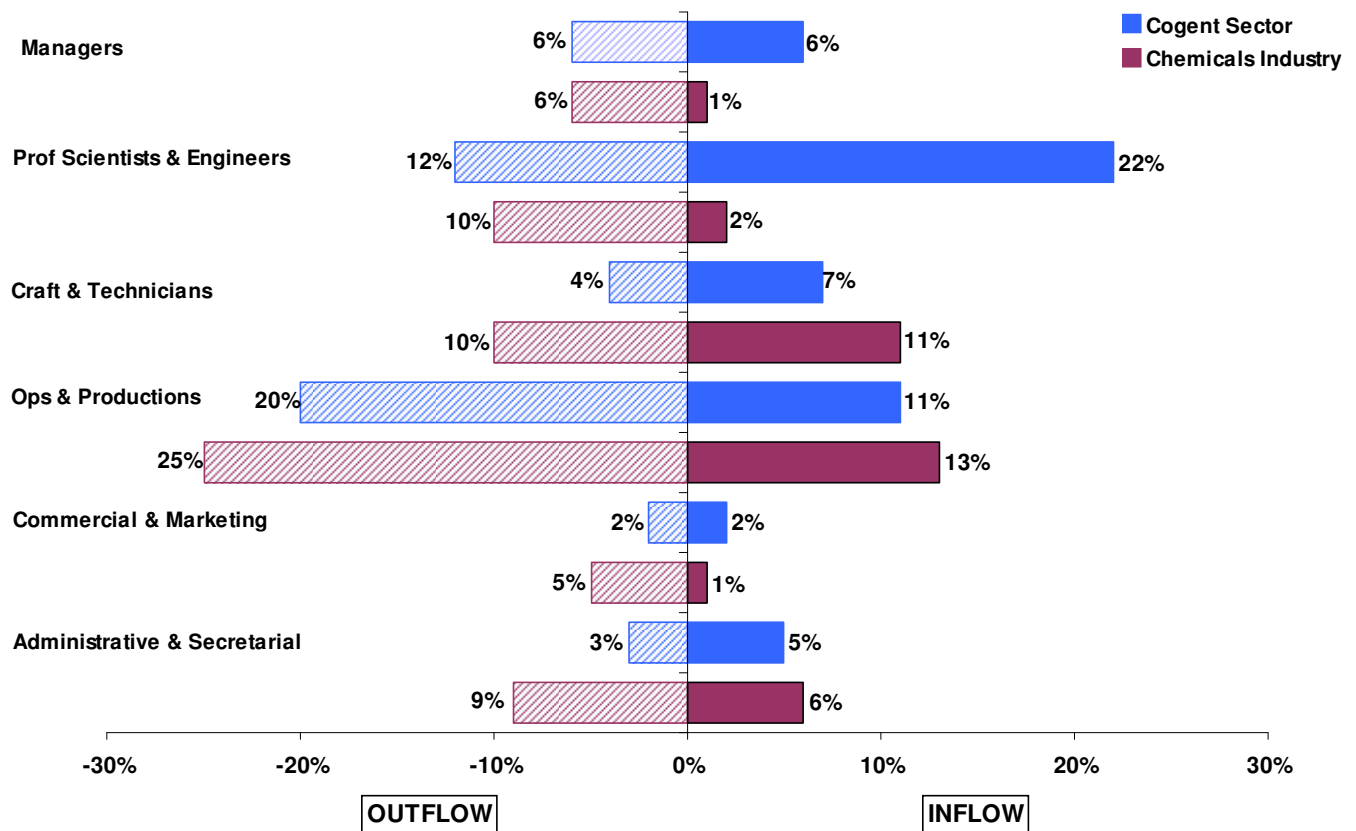


Figure 5: Hard-to-Fill Vacancies

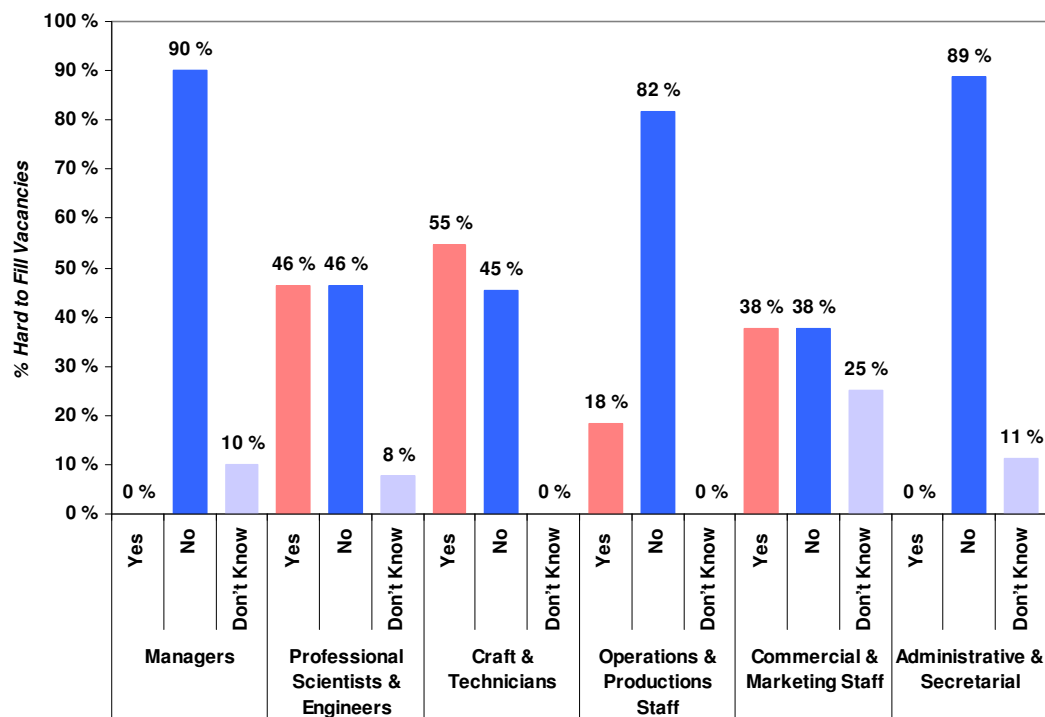
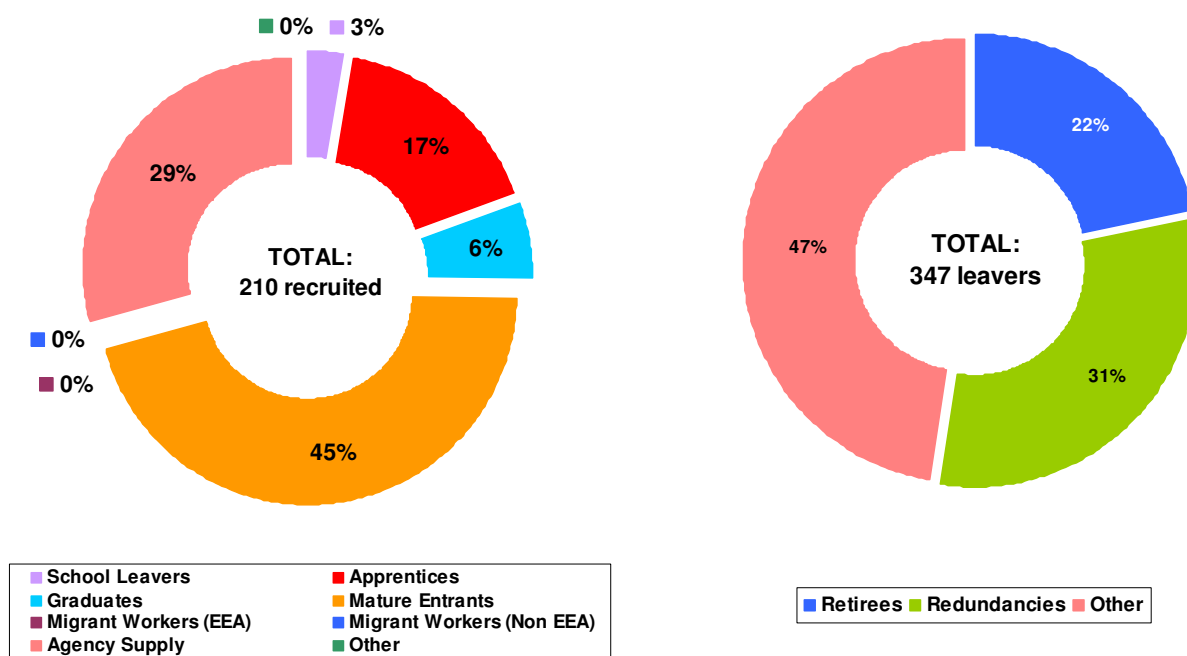


Figure 6: Inflow & Outflow of Employment reported by the Chemicals sector



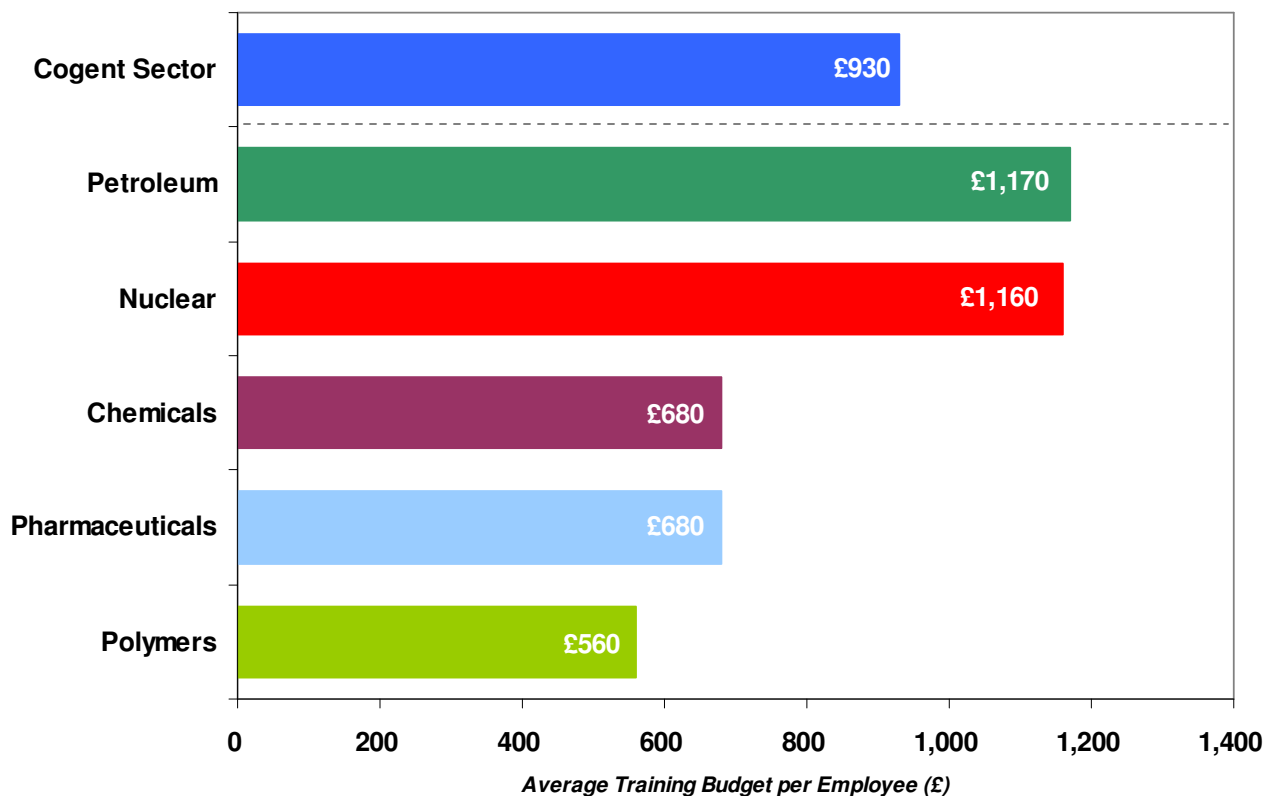
3.3 Training Budgets

The majority (88%) of Chemicals sites reported having a training budget. Of those that reported training budgets, the average was £183,500, with a maximum reported of £500,000.

Despite the recession, half of the Chemicals sites (50%) reported that their budgets would remain the same in the coming year. A smaller proportion (21%) expected training budgets to be cut. For the Chemicals sector the average annual spend on **training per employee** is £680 (figure 7).

The average figures presented are in reality an underestimate of the spend on technical training for three reasons: 1) the figure on spend takes no account of cost of 'down time' for training; 2) the spend relates to all workforce training with an expectation that Technical training would be more costly; and, 3) the figure does not account for investment in internal training and training facilities.

Figure 7: Average Training Budget (£)



3.4 Qualifications – the Employers View

In general, chemicals employers were satisfied with the coverage of qualifications across the sector. Satisfaction ratings were highest for the use of ‘Competence Based’ qualifications, and ‘Academic’ qualifications (respectively 56% and 50% majorities over the contrary opinion). 38% of those that responded were satisfied that the chemicals sector is well served by ‘Apprenticeships’.

3.5 Training

Health, Safety and Environment (HSE) was the most frequently reported training undertaken, when viewed across both internal and external training requirements. Chemicals companies tended to resource externally for specialist training needs (‘Technical’, 81%; ‘HSE’, 75%; and ‘Professional’, 75%). (Figure 8).

When training needs are more directly related to a job, training tends to be internally resourced (‘HSE’, 100%; ‘Job Specific’, 94%; and ‘Competence’, 63%). (Figure 9).

Figure 8: Reported External Training

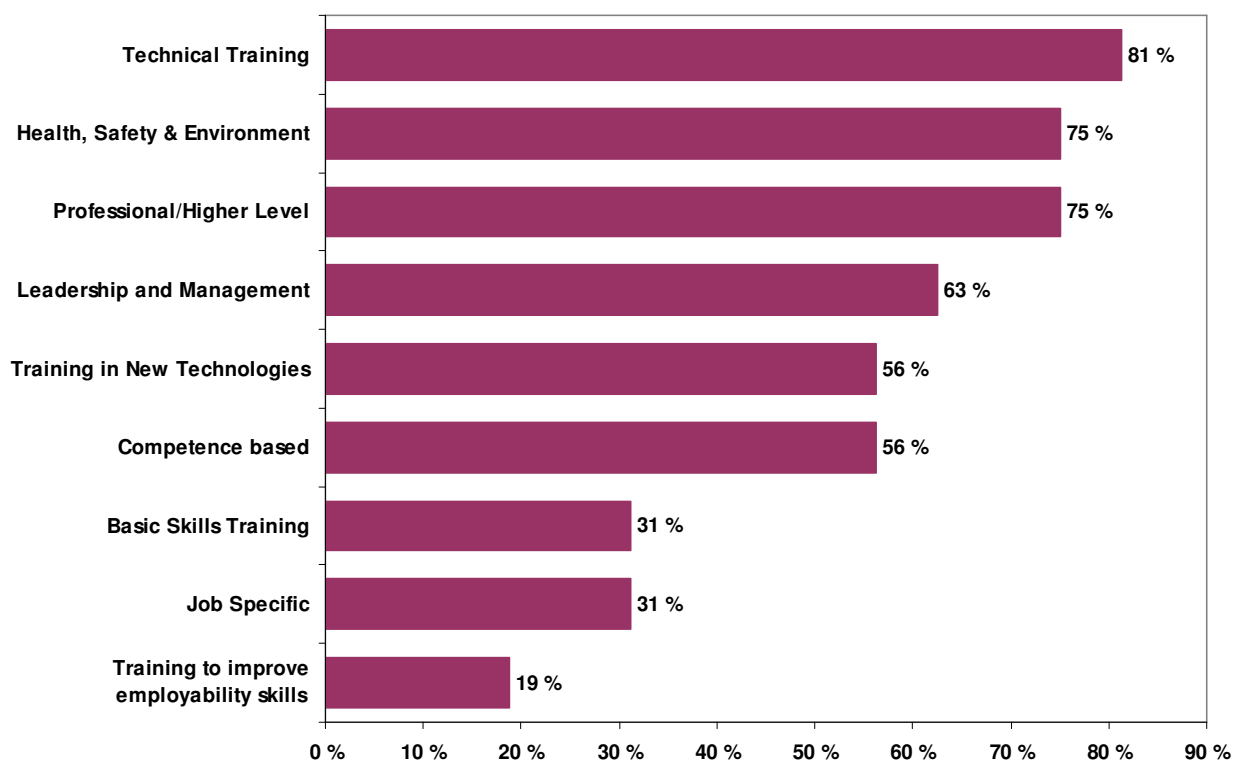
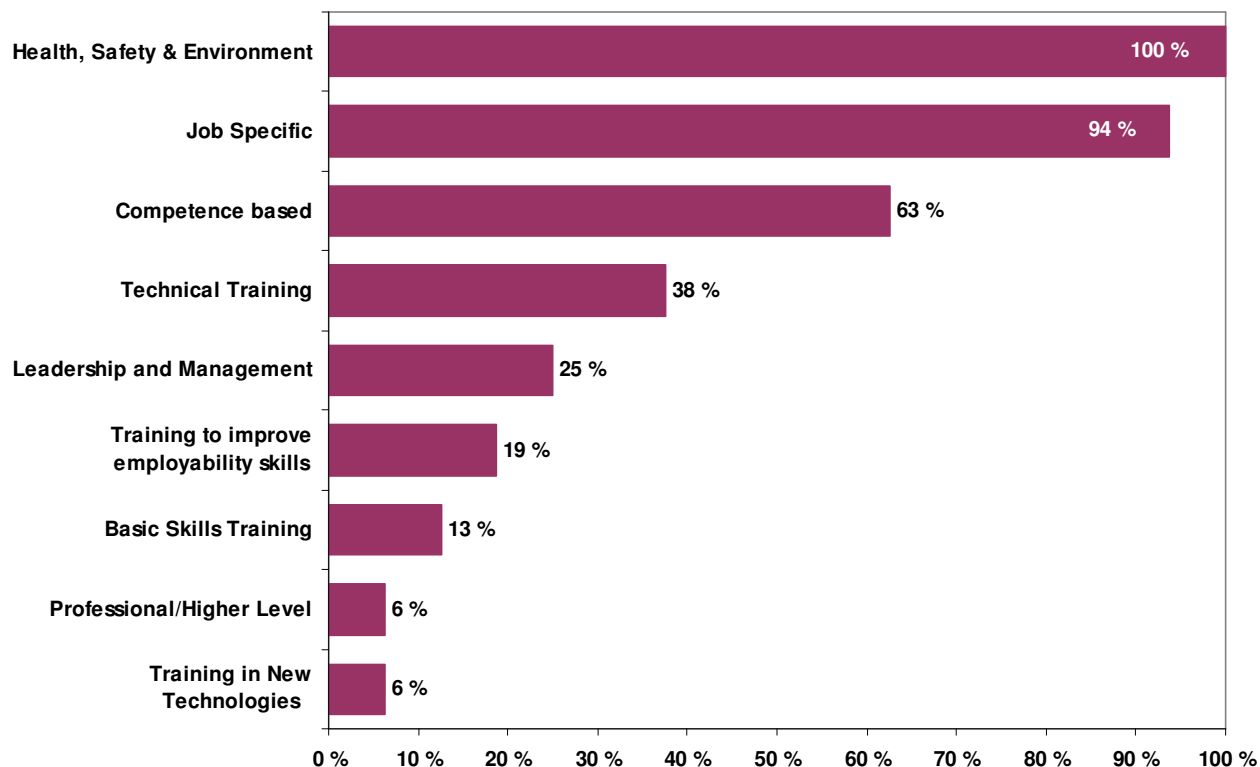


Figure 9: Reported Internal Training



3.6 Providers of Education & Training

For workforce development, chemicals employers made use of a range of private and public providers. The frequency of the use of providers is: private sector (100% of employers), FE sector (63% of employers), HE sector (38% of employers).

Satisfaction ratings with each type of provider was measured for 'Cost', 'Relevance' of provision, 'Flexibility' of provision, 'Location' of provision, and the 'Quality' of those delivering education or training. For private training providers, satisfaction levels tended to be extremely high in all areas, ranging from, the lowest of 69% satisfied (on Cost) to the highest level of satisfaction of 100% (on Location of Training; and Quality of trainers). In the main, this reflects the highly tailored provision that private training providers must produce in order to secure a business offer.

The satisfaction in FE and HE were also significant, with all satisfaction levels between 56% and 83%. The lowest of these ratings referred to the location of training and flexibility of training. This portrays the constraints of qualifications in a training context, as well as geographical coverage. The results suggest that while employers value such provision, there is scope for FE and HE to innovate in flexible and accessible provision, and that there is a role for the Sector Skills Council in facilitating this.



3.7 Education Supply

Chemicals employers expectations of the skills presented by 'School Leavers', 'Apprentices' and 'Graduates' were captured. For School Leavers, in the main, chemicals employers were neither satisfied nor dissatisfied with their basic skills (for example, ICT, literacy and numeracy); knowledge of their chosen job/career; or business awareness.

Chemicals employers that took part in the survey placed a high level of importance on Apprentices (17% of the skills supply recruited were Apprentices, fig.6), with a rating of 80% of employers. Chemicals employers expressed clear levels of satisfaction in many of the categories detailing what may be expected from an Apprentice. In priority order, employers valued 'Practical' Skills, followed by, 'Employability' Skills; and 'Technical' Skills.

Chemicals employers that took part in the survey also placed a high level of importance on Graduates (6% of the skills supply recruited were Apprentices, fig.6), with a rating of 73% of employers. High levels of expectation were placed on 'Employability Skills', 'Core Subject Knowledge', 'Practical' Skills and 'Higher Level ICT, Literacy and Numeracy' skills. 100% of chemicals employers were 'satisfied' or 'very satisfied' with STEM (Science, Technology, Engineering and Mathematics) subject skills.

3.8 Workforce Development

The degree of workforce development for the 'Existing Workforce' and the supply of 'School Leavers', 'Apprentices' and 'Graduates' was assessed for the skills categories of 'Basic', 'Competence', 'Technical' and 'Professional'.

Competence based and Technical training of the existing workforce was reported by 88% and 69% of chemicals employers

respectively, while 75% of chemicals employers invested in Professional/Higher Level training of the workforce. A smaller proportion of chemicals employers (50%) invested in basic skills training of the existing workforce. Technical training was the most prevalent training reported across all categories of employment, with a substantial proportion of chemicals employers engaging in technical training for Apprentices (50%) and Graduates (44%).

3.9 Skills Gaps, Shortages and Future Skills Needs

In the opinion of a significant majority of Chemicals employers, skills gaps and shortages over the past 12 months had 'some impact' on business performance; as 75% of employers reported skills gaps among existing employees had 'some impact'; and 50% of employers reported that the shortage of skilled individuals when recruiting has had 'some impact' on business performance (figure 10 displays skills gaps and shortages).

Most Chemicals employers (81%) stated that the 'Basic Skills' needs of their workforce had remained 'constant' relative to the previous 12 months. Similarly the 'Professional/Higher level' (56%), 'Leadership and Management' (56%) and 'Technical Level' skills needs of their workforce also remained constant.

Employers also stated that over the past 12 months, most needs had 'increased' in the area of 'Competence based skills' (63%). Looking a year ahead, the same areas remained relevant but with an expectancy of a continued increase in the skills development required for 'Competence Based Skills' (81%), 'Leadership and Management' (63%) and 'Technical Level Skills' (50%).

Skills needs are charted below (figure 11 & figure 12).



Figure 10: Skills Gaps and Shortages

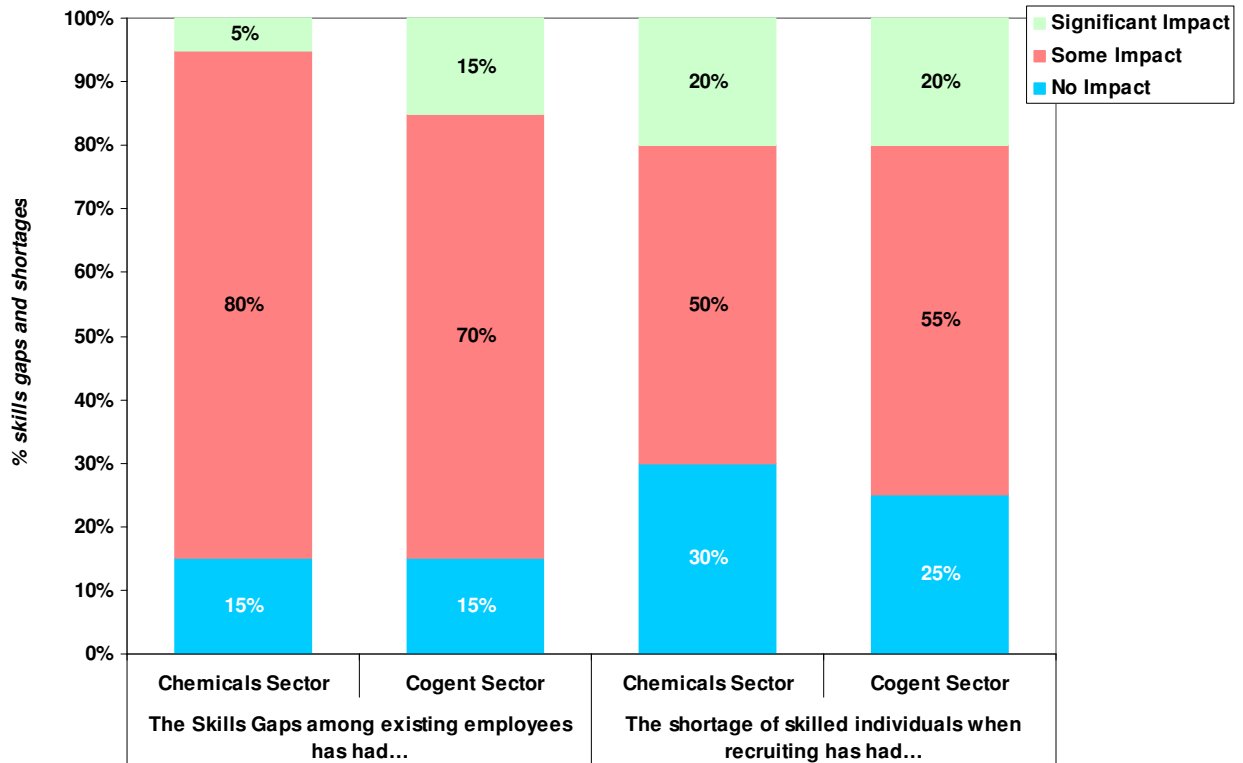


Figure 11: Skills Needs (last 12 months)

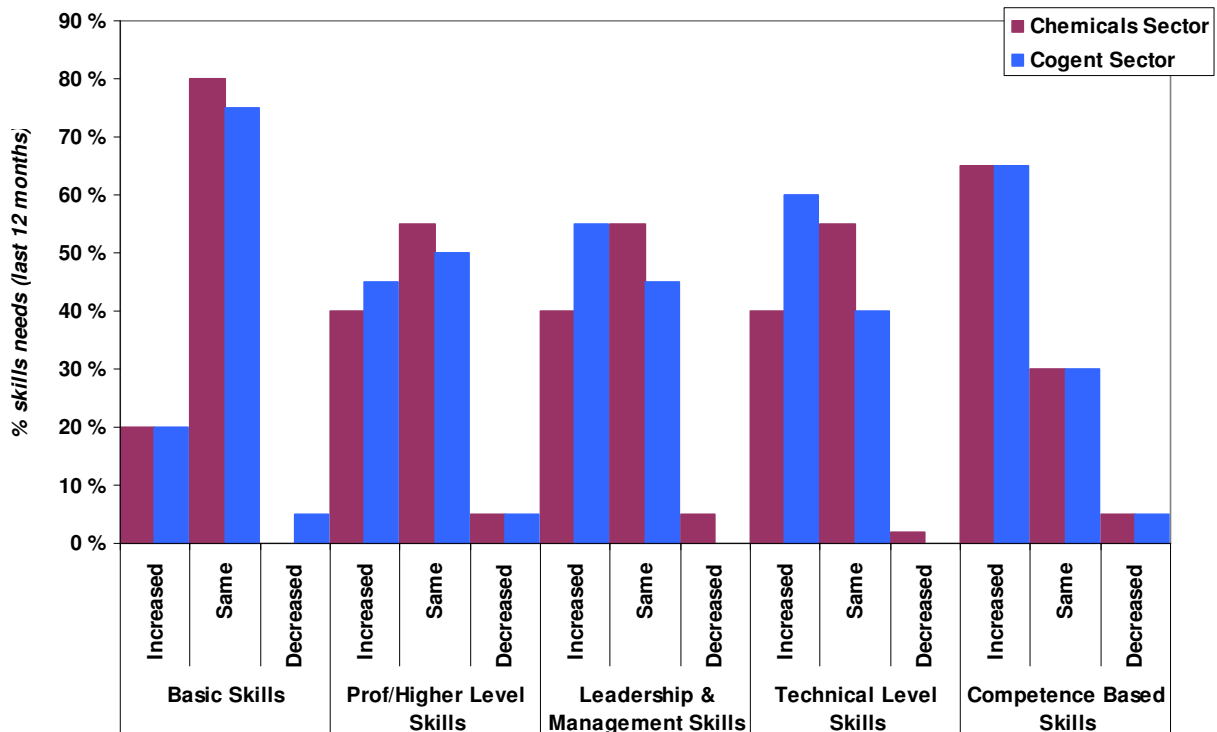
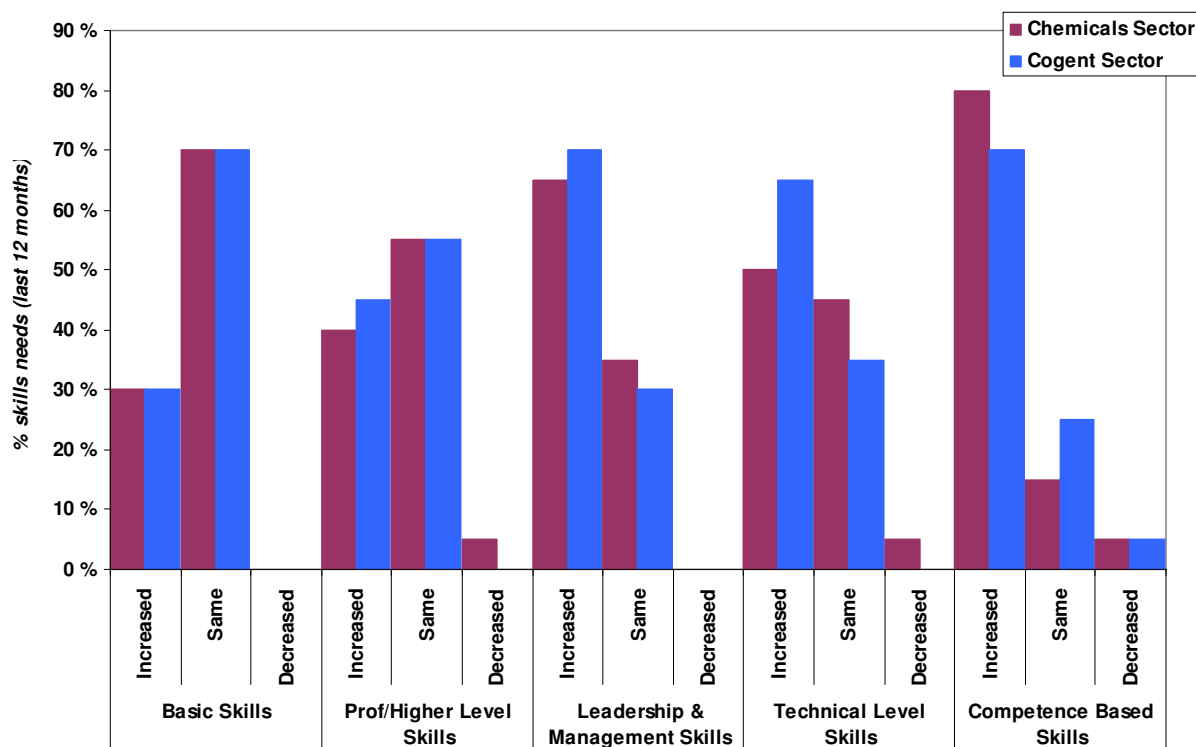


Figure 12: Skills Needs (next 12 months)



4.0 Skills and the Economy

Unsurprisingly, 95% of employers across the Cogent sector reported that the general economy had either ‘some impact’ or a ‘significant impact’ on their businesses. 88% of chemicals employers also reported that the economy had ‘some impact’ or a ‘significant impact’ on business.

Looking ahead, Chemicals employers were split in concluding that the economic situation for their businesses would ‘improve’ (31%), ‘remain static’ (13%), or ‘worsen’ (44%) within the year. 13% of chemicals employers were undecided.

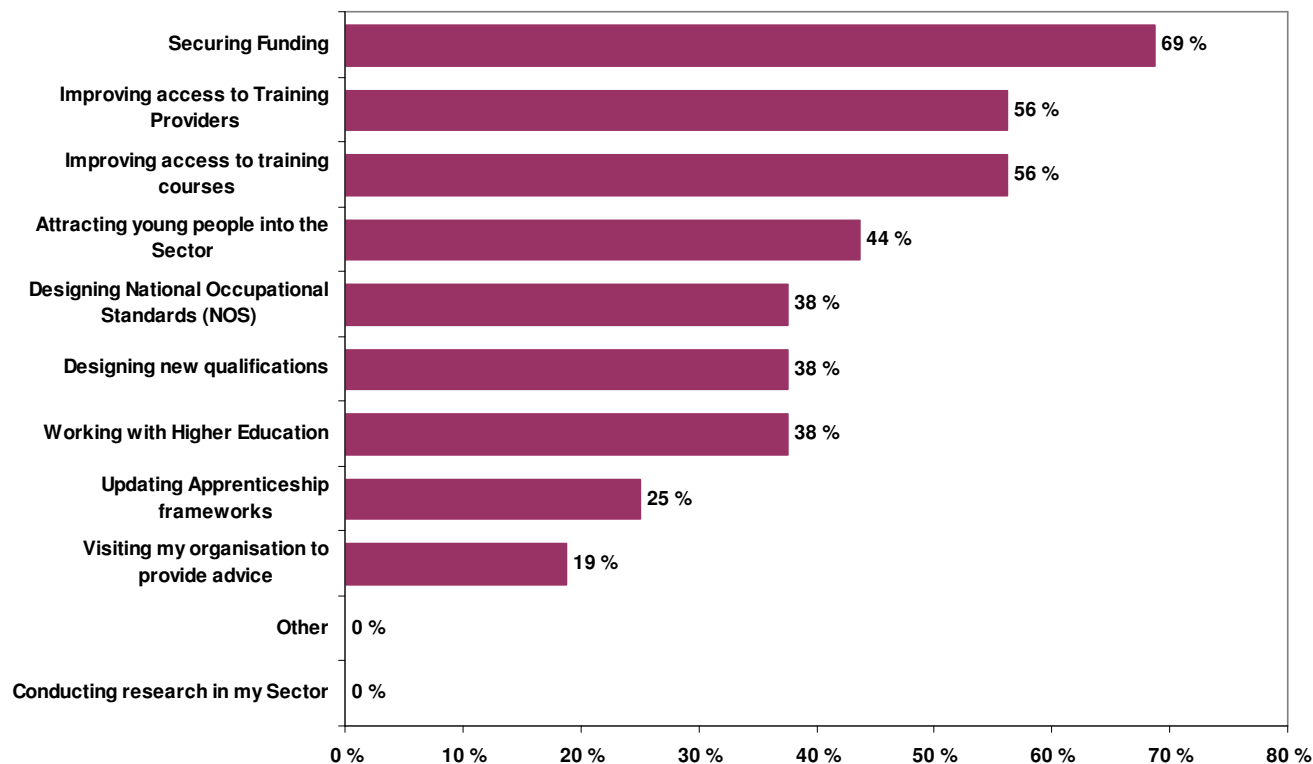
Most Chemicals employers predicted ‘no significant change’ or a ‘decrease’ in employment in the short term (2 years ahead) and long term (5 years ahead).

4.1 What Chemicals Employers want from a Sector Skills Council

From a defined list of SSC activities, Chemicals employers were asked to select those they consider would be most beneficial to their businesses and industry. This gives, in effect, a demand chart of the skills activities of the SSC that employers endorse. Figure 13 shows the relative importance of each activity reported by employers. Securing funding, improving access to training providers and training courses were top priority for Chemicals employers.



Figure 13: What Chemicals Employers want from a Sector Skills Council



5.0 Concluding Remarks

The data provided in this report is a unique snapshot of the industry from a sizable cross section of employers. The intention is that the first Skills Oracle will provide a datum for the development of trend Labour Market Intelligence on an annual basis.

As noted in the introduction, the role of the project is two fold; providing a benchmark for individual companies, while also generating sector wide data, absent from national sources, but crucial to directing skill interventions over the longer term. Future Skills Oracle for the Chemicals industry will build on the information gathered in 2009 to enable the development of trend analysis.

Cogent welcomes comment on any aspect of the survey or the report.



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Should you wish to take part in the 2010 Skills Oracle, or would like some information please do not hesitate to contact Julie Plumbley by email at:
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