

# SkillsImpact

Setting industry skills standards



**ACADEMY EXTENSION**  
for bioscience and composites

**RESOURCE EFFICIENCY**  
new qualifications for industry

**GOLD STANDARD**  
world class benchmark for skills

**APPRENTICESHIPS**  
set to expand



# Setting world class standards



Joanna Woolf  
CEO

**The need to maintain global competitiveness and to innovate continue to drive employer performance in the science-using sector.**

Employers report that this means securing a workforce able to compete on the world stage through bringing in new talent, upskilling and re-skilling.

These imperatives continue to be at the heart of our **skills strategy**. Indeed the current economic climate has put even more emphasis on improving skills, and on the need for the providers to supply training that delivers **business improvement** of every kind.

Businesses want programmes that meet both their immediate and longer term business needs. To support providers, we're developing employer-endorsed **standards and qualifications** – including apprenticeship frameworks.

We know that there'll be much less **public funding** in future, and that businesses need

to get a real return on their investment. This is why we are working with companies all around the UK to help them benchmark their workforce skills to **world class standards**.

Where limited funding does exist we'll bring you news and information on how to access what's on offer.

The science-using sector is at the heart of economic recovery. Our partners, the Skills Academies for Process Industries and Nuclear will continue to ensure high quality work-based learning for these sectors. See inside for the great news about the NSA Process Industries **exciting extension** to its remit.

Finally, **higher level skills** remain firmly in view. They are key to taking advantage of opportunities in the new growth areas such as advanced manufacturing and bioscience. Our work with HE emphasises the practical – with employers shaping future-focused programmes that are **work-based** and flexible.

## Bio landscape provides new opportunities

**Cogent is firmly focused on skills solutions for the life sciences industry, a world-leading, high-tech industry employing over 73,000 people and investing at least £4.3 billion in research and development (R&D) in the UK.**

These skills solutions are being shaped under the close direction of the new Cogent Life Sciences Advisory Council.

Recent confirmation of Government approval for The National Skills Academy Process Industries' bid to extend its scope to cover two new dynamic sectors – biotechnology and composites – means enhanced support for skills delivery for this emerging sector.

Cogent is now taking the lead role in bringing together the excellent work on the life sciences skills agenda achieved by a variety of industry bodies and in agreement with our fellow SSC Semta and key Government partners. The vision is for one voice stating the skills businesses need and the

establishment of a fit-for-purpose learning and skills offer.

### SME landscape

Small businesses dominate the biotechnology landscape and outsourcing of specialist services is prevalent. The statistics show continued growth in medical biotechnology and advances in technology transfer and product commercialisation; commercial development in industrial biotechnology is slower, but the opportunities are growing all the time.

Dr Brian Murphy, Cogent Director of Science and Research said: "The prospects for biotechnology illustrate that it is timely to research skills futures scenarios to quantify the skills shift as biotechnology penetrates further in both the chemical and pharmaceutical industries.

"Through industry leadership and investment in skills, the life science industries, a key part of our economy, will be rewarded with an increased share in markets emerging across the globe."

## Nigel Brooksby appointed as Chair

**Pharmaceutical industry leader and champion Nigel Brooksby has taken up the position of the new Life Sciences Skills Strategy Board. The Group will inform the direction of the Life Sciences Advisory Council.**

This High Level Board will consider the big picture on skills and link what the Council is doing to developments, barriers and opportunities across the life sciences industry. It will give strategic advice and also ensure influence among key stakeholders.

Mr Brooksby said: "the UK is a world leader in life sciences and there is real potential for the industry to contribute to our future

economic growth. The time is right to take a coordinated approach to workforce development through enhancing the skills of existing workers and developing new talent.

"I am delighted to take on the role of Chairman of the Life Sciences Board to support Cogent's work in realising this ambition."

Joanna Woolf added: "Nigel's appointment is a great boost to our efforts to ensure a highly skilled life sciences workforce now and into the future. The industry needs skilled technicians, managers and leaders if it is to maintain a leading global position through innovation and growth."



## UTCs to provide STEM skills

In a changing educational landscape, the university technical college (UTC) is set to make its debut.

Cogent is supporting the development of UTCs, which were devised by Lord Baker (former Secretary of State for Education); they are schools for pupils aged 14 to 19, where the aim is to teach academic and vocational education in one place.

Cogent 14-19 Manager, Ian Moores is advising on the curriculum development for The Black Country UTC, which is aimed at creating the next generation of engineers and scientists. This new UTC, one of the first, will provide pupils with a unique opportunity to get a head start in developing the skills required for an exciting and rewarding career in the fast-changing engineering and science-based industries.

Based in Walsall, the UTC is being supported by lead sponsor, Walsall College; Co-sponsor, University of Wolverhampton, Walsall Council and strong partnerships with local employers.

Amarjit Basi, Principal and Chief Executive of Walsall College and Cogent Board member said: "the Black Country is the birthplace of engineering. So it's about respecting that heritage, but also looking to the jobs of the future."

He says that UTCs are not just aimed at ensuring there are enough young people for these jobs, but also at engaging those who might be switched off by more traditional approaches, "the GCSE route caters for 50% or 60% of the population, leaving a significant number of young people who feel the system has failed them."

The Black Country UTC will officially open in September 2011 to its first cohort of year 10s and year 12s (sixth form).

Adds Mr Basi, "The Black Country UTC, Walsall will provide pupils with an interest in engineering and science to learn and succeed within an inspirational institution, supported by expert staff, utilising the latest technology that industry has to offer."

Cogent is also working with the University of Chester and Warrington Collegiate to develop initial proposals for a UTC to be based in Warrington.

## Career pathways takes a new direction

Cogent is building on the success of its popular career pathways tool [www.cogent-careers.com](http://www.cogent-careers.com). As well as a new home page and updated pathways, Cogent is now inviting companies to appear on a new interactive UK employer map.

This will provide an easy-to-navigate directory to support young people in their search for career opportunities. It also gives employers a new industry-focused outlet for their recruitment information. The Cogent careers portal now features over 200 key manufacturing roles including entry requirements, key processes involved and the kind of salaries on offer. These are illustrated with real-life video case studies and information about each industry.

Mervin Dadd, Cogent Director of Communications said: "Over 1500 careers advisers use the site every month as well as young people and their teachers. It's established as the



place to go for information on careers in the science-based industries."

### National picture

Cogent continues to provide industry data and intelligence to the Government to ensure careers advisers are armed with the best possible information to their job.

The Government's vision is for a fully joined-up service for every age group. A new "all age" careers service is underway and will be fully operational by April 2012, with early

access this September. It will build on the best of Next Step and Connexions.

Skills Minister John Hayes said, "everyone knows that impartial advice is always the best advice. I want to create an environment in which careers guidance is recognised for the important public good it is."

He said that it is important that there are clear pathways between formal and informal learning and between the different levels and modes of formal learning.

## Science Competition wins place at "Skills Olympics"

Scientists' union Prospect has won the World Skills UK Partner of the Year award for its work in developing an environmental science competition.

The competition is aimed at young people who have an interest in sustainable natural resources, energy production and environmental protection. The goal is to raise skills and awareness in science, engineering and related disciplines.

The competition was designed using the expertise of Prospect members at the British Geological Survey working closely with a unique combination of key partners and Sector Skills Councils, including Cogent.

Competitors, working in small multi-disciplinary teams, are tasked with devising the 'best' combination of energy supply for a purpose-designed, generic island, for the next 30 years.

Prospect's Head of Research Sue Ferns said: "I am delighted to receive this award, which truly reflects the hard work of everyone involved. Although this is one of the newest UK competitions, we have secured agreement that it will feature at World Skills 2011."

World Skills is an international competition, sometimes described at the Skills Olympics. The 2010 competition final was sponsored by the Welsh Assembly Government,

Semta and Cogent SSCs and took place at Pembrokeshire College last year.

The winning team of apprentices employed at Chevron – Jessica Holmes, Craig Robertson and Ashley Bolton received their awards at the WorldSkills UK event, held at London's IMAX cinema in early November. The students built a solar oven to harness the power of the sun.

Chas Hubbard, Cogent's England Manager said: "Through this important competition young people can find solutions to the need to secure sustainable energy sources."

He added, "it's an important initiative which plays a role in inspiring young people to pursue a STEM career and we congratulate Prospect on securing a place at World Skills 2011."



The Chevron winners pictured with Baroness Margaret Wall

### Seeking employer investment

Cogent as a partner in the Science Competition is also encouraging employers to participate in the Skills Olympics, as a way of developing both apprentices and employees. The partners are also seeking to raise £100,000 towards the running costs of the competition.

Get in touch with [chas.hubbard@cogent-ssc.com](mailto:chas.hubbard@cogent-ssc.com) to find out more.

# SSA: workforce skills for

Cogent has launched 5 Sector Skills Assessment (SSA) reports – a national SSA, plus the four nations and a summary document. The detailed reports consolidate Cogent's existing research this year, including Skills Oracle and its Nuclear Renaissance reports, and are supported by national data.


They provide an up-to-date projection of demand, industry-by-industry. This shows an overall long term decline in traditional industries (e.g. polymers, oil and gas and chemicals) – although there will still be continued replacement demand due to an ageing workforce – and overall growth in nuclear new build and bioscience.

## About the science-based sector

Cogent and trade bodies estimate that the Sector is comprised of over 900,000 people across 23,000 companies. The Sector is responsible for considerable industrial economic activity, spending nearly £7.8 billion a year on new capital investment (excluding the significant Nuclear sector which could double this alone through new build).

Those parts of the Sector that are covered by national statistics are shown to generate a turnover of over £200 billion and a gross value added (GVA) of more than £65 billion, a GVA of 6.5% of the UK total.

The Sector embraces companies from the micro to the global. More than two thirds of employers employ 10 people or fewer, just over half of the workforce is engaged by companies with in excess of 50 staff, and one third by those with a headcount above 200.



**3,000** vocationally related qualifications

**Key findings:**

**Employment to 2017**  
The combination of expansion demand (positive or negative) and replacement demand in all parts of the Sector leads to a positive employment requirement. In summary:

- Polymers has a net requirement for an additional 40,000
- Pharmaceuticals (manufacturing only) for an additional 25,000
- Chemicals an additional 15,000
- Manufactured Fuels an additional 8,000
- Oil and Gas an additional 7,000
- Nuclear an additional 10,000

The overall employment requirement for the Sector is for an additional 105,000 people. Allowing for uncertainty, and a conservative estimate of 50% for the direct supply chain, the Sector will require 100,000 - 150,000 new people in total by 2017.

**900,000**

people in the sector

**23,000**

companies across the industries

# today and tomorrow

## Education and Vocational Qualifications

Science graduates are critical to the science-based industries. Of the STEM and life science graduates produced by HE, the proportion recruited into the Sector is small. These graduates are well sought after and the supply will become thinly stretched.

GCSE and Scottish Standards and Intermediates underpin routes to Higher Education. Entry levels have remained largely stable. A level and Scottish Highers entry rates have increased in the period 2005 to 2009.

On average 3,000 vocationally related qualifications are registered to learners on Cogent frameworks. Of these approximately 10% are new recruits through Apprenticeships.

## Skills Shortage and Skills Gap Analysis

Skills gaps will continue to emerge across all occupations driven in the main by technology, regulation and compliance.

From the analysis it would appear that the occupations at risk of a skills shortage are **associated professional, process operatives and skilled trades**, for which the main entry routes are through apprenticeships or recruits taking vocationally related qualifications. These groups combined make up a requirement for 61,000 by 2017 (projected from 2007).

**For managers**, the main entry routes are either by internal progression or from the wider economy. This means this occupation is not limited to being supplied from the education system. Shortages are not projected in this instance, with the main priority being the need to address skills gaps.

**For professionals** the main entry route is either graduate recruitment or transfer from the economy. Graduate destinations into the sector in 2009 were of the order of 3,000. This would appear to be in line with the projected need, although a substantial proportion of graduate intake goes into associated professional level initially. Further, a decline of 25% in graduate recruitment since 2007 is noted.

Shortages are therefore not projected at the overall sectoral level. However, skills shortages continue to exist at the sub-sectoral level (and there is particular evidence of this from the pharmaceuticals and bio industries for very high level and specialist skills).

In addition, employers report skills gaps among professionals in the areas of practical skills and applying knowledge (problem solving).

## Sector Skills Priorities

The SSA research supports the following SSC-driven developments:

1. Standards and qualifications focused on science-using occupations - (80% of the workforce).
2. Standards and qualifications priority to address skills gaps in the areas of technical and regulatory compliance.
3. Raising awareness of the general requirement for 120,000 new personnel in science-using occupations by 2017.
4. Industry consultation on analysis of demand for 61,000 new technician, process operative and skilled trade occupations.
5. Products for industry to assure skills standards of its supply chain linked to Passport development with the National Skills Academies.
6. Initiatives and interventions to facilitate uptake of technician and skilled trade occupations.
7. Skills Gaps initiatives opposite HE to improve the employability of STEM graduates and greater interaction between HE and employers - e.g. placements.
8. Initiatives opposite FE and HE to develop accredited CPD provision for the workforce, e.g. Foundation Degrees and Higher Level Apprenticeships.

Across the Sector, the public spotlight will remain firmly upon the management of health, safety and the environment, with employers recognising that compliance and competence have never been more important. Dr Brian Murphy, Cogent Director of Research and Science added: "a common feature of the Cogent Sector is the fragmentation of the supply chain, so that no single company has the full panorama on skills.

"A standards-based skills assurance process, across the safety critical science-based industries where compliance is devolved throughout the supply chain has become an imperative. Employers have a real appetite for this and we are working on the skills solutions to fulfill their needs."

<http://www.cogent-ssc.com/research/ssa2011>

## Skills "FTSE" thank you

**Cogent's unique project, Skills Oracle, which gathers primary labour market intelligence from companies across the Cogent science using sector is now at the analysis stage.**

Skills Oracle ran from September to December 2010. Julie Plumbley, Skills Oracle Project Manager wants to thank participating employers, "I appreciate that this year has been difficult for companies. Resources have been tight meaning taking time to complete the survey has not been easy. So I would like to take this opportunity to personally thank those that did take part. Your contribution is highly valued by Cogent."

**The Skills Oracle is:**

- 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
- a skills voice – a report of measures and opinions, supported by a body of evidence

Skills Oracle works through an online survey. It involves an expert panel of over 200 employers, providing skills, training and economy tracking.

Analysis is currently underway and it is expected that headline findings will be available in the Spring. In the meantime please take a look at the 2009 industry-specific reports:

<http://www.cogent-ssc.com/research/Publications>

# A brand new set of 21st century qualifications



**The qualifications system has changed and even though NVQs will remain for those who started them last year, there's a new set of flexible and bite-sized units that employers can use to ensure a competent workforce.**

The Qualifications and Credit Framework (QCF) is the new framework for creating and accrediting qualifications.

The new QCF is designed to make the whole system simpler to use and brings in a wider range of providers. It's aimed at making

the qualifications offered far more relevant to the needs of employers and more flexible for learners.

Importantly, the new qualifications are made up of units, so learners can study at a pace that suits them. Over time, they can combine units in different ways to make up a complete qualification. The qualifications are now known as Awards, Certificates and Diplomas.

Many of them sit on Cogent's Gold Standard Competency Framework for the process industries, which sets the benchmark for world class skills.

Cogent, working with employers, providers and awarding bodies, has now placed over 80 new qualifications, made up of individual units, on the framework and many more are in the pipeline.

Cogent Director of Education and Qualifications, James Murdock said, "While it's not the most headline grabbing news, the implementation of the QCF is a really important step in reforming the qualifications landscape in the 21st century.

"The QCF recognises achievement, supports learner progress and stimulates the kind

of higher levels skills development required by Cogent Sector employers operating in the global economy."

Having successfully gone through the application process Cogent is also now a "submitting body" for the QCF. This enables Cogent to submit units and "rules of combination" (the mix of units needed to achieve a qualification) directly onto the QCF, for use by Awarding Bodies.

For more information about the QCF go to <http://www.bis.gov.uk/vocationalqualifications>

## Online Standards and Qualifications Prospectus launched

Cogent has launched a new online Standards and Qualifications Prospectus [www.cogent-prospectus.com](http://www.cogent-prospectus.com). It's designed to be a helpful web-based guide to what's available to employers to support their training and development.

This new site allows the user to find out about all the qualifications, apprenticeships and training standards available across the Cogent science-using sector. It feeds from the "Cogent Library" a database which contains approximately:

30 Standard job roles  
18 Training standards  
132 Qualifications

Christine Sakhardande, Cogent Products and Services Manager said: "Cogent is working with employers to ensure that the most appropriate qualifications, standards and training programmes are in place and accessible. These are being designed to meet the real skills needs of the Cogent industries."

On average 3,000 vocationally related qualifications are registered to learners on Cogent frameworks. Of these approximately 10% are new recruits through Apprenticeships.

Industry shapes the design of qualifications and standards developed by Cogent through

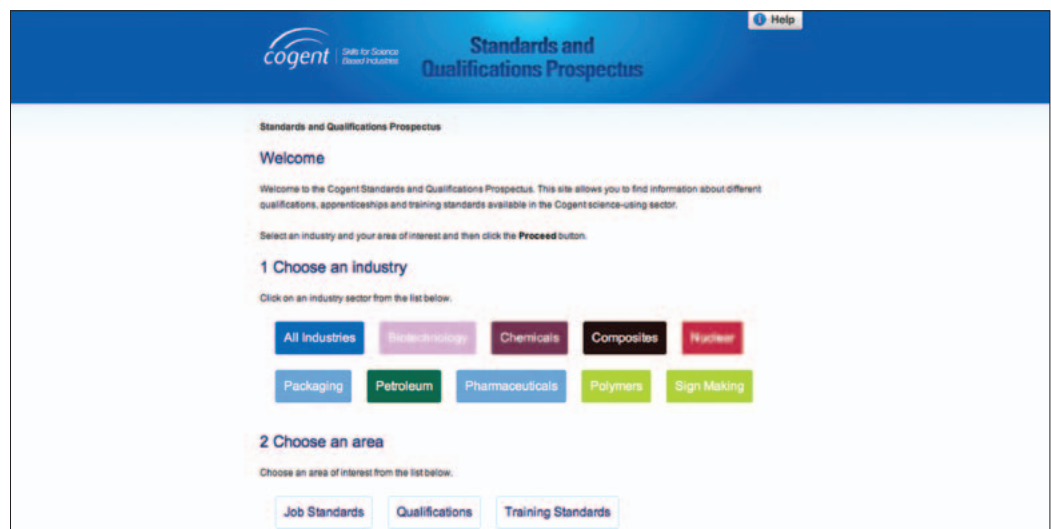
research, consultation and through Industry Advisory Councils.

### Access to the right training

The National Skills Academies for the Process Industries and for Nuclear, part of the Cogent Group, are in place to ensure high quality provision around the country -

designed to suit every type and size of employer.

To find out more about any of the standards and qualifications listed and how to use them, employers can contact 0845 607 0140 and a Skills Manager will arrange a no obligation visit to find out more about the organisation's skills needs.



## Qualification developments for polymers

Three new style qualifications are now much more relevant to operators and technicians working in a polymer environment. The new qualifications replace Levels 1, 2 and 3 Polymer Processing and Related Operations NVQs.

They are:

- Level 1 Certificate in Polymer Operations
- Level 2 Certificate in Polymer/ Polymer Composite Operations (Gold Standard)
- Level 3 Diploma in Polymer/ Polymer Composite Operations (Gold Standard)

Importantly, all these qualifications are fundable.

A key difference of the L2 and L3 qualifications is the mandatory aspect, which as well as health and safety, includes the core activities required to perform the job, mainly tasks associated with machine or hand-based operations. In the old style NVQ the mandatory element was less specific to the role – for example it included team working and communications skills.

Says Matt Hardy, Standards and Qualifications Manager: “employers have told us what they need in these important vocational qualifications.

“The new L2 and L3 qualifications have been designed to focus on the core aspects of the role. The softer skills are still incorporated into the qualifications, but the key operational elements have been brought to the forefront and are the mandatory requirements.”

Polymer employers have also set out their requirements for another unit-based QCF qualification, which would cover activities such as recycling waste, engineering support and quality control.

Cogent is working with the Awarding Bodies PAA\VQ-SET and Accredited Skills for Industry (ASFI) to ensure this new qualification is also funded.



## Resource efficiency qualifications showcased



Cogent exhibited at Environment and Business: *The Challenge and the Opportunity* in November, to showcase its new suite of small qualifications covering topics such as energy efficiency and waste reduction.

These qualifications, developed with Edexcel, are the first nationally accredited qualifications of their type, and support training for people with the responsibility for identifying and implementing efficiency measures for:

- energy
- water
- waste
- transport

The qualifications are project based, and require individuals to apply resource efficiency principles to make improvements within their own organisation.

Dawn Hillier, Cogent’s Standards and Qualifications Manager said: “The Government estimates that resource efficiency is worth £6.4 billion in annual cost savings to UK Business, and these qualifications will provide an opportunity for individuals to unlock potential savings within their organisation.”

The qualifications will be delivered through the National Skills Academy Process Industries Accredited Provider network.

At the conference Cogent also consulted with delegates on phase 2 of National Occupational Standards (NOS) and qualifications development, linked to sustainable business practice, to find out what skills and knowledge employers feel are critical in delivering sustainability.

Dawn added: “Many employers in the Cogent sector fully understand the significance of sustainability – we are now embedding it into every part of the learning and skills infrastructure.”

## Polymer Study Tours educate teachers

**Polymer Study Tours is a series of residential courses designed educate teachers on the science, technology and applications of polymers (both plastics and rubbers).**

They provide information and create interest to promote the recruitment of high quality scientists and technologists for the plastics and associated industries.

In addition the courses promote the knowledge of polymers and plastics and their importance to the quality of everyday life. The three residential courses on offer are basically similar, with differences to suit

the local plastics factories that are to be visited and the facilities of the sponsoring Universities.

The course costs about £850 per teacher and the organisers ask each teacher’s school to contribute just £150, the Horners Educational Trust and generous sponsoring organisations, including Cogent, provide the rest.

On the course participants visit the sites of major plastics processing companies, attend lectures and get involved in discussions with leading figures from industry and academia.

[www.polymerstudytours.co.uk](http://www.polymerstudytours.co.uk)

# TVAP continues to rebuild apprentice careers



Cleveland Potash Ltd. apprentices tackle a shuttle car overhaul at above ground workshop

Since the launch of TVAP in July 2010 the project team has successfully secured employment and training for over 140 Process and Engineering Apprentices operating in the Tees Valley, working with over 60 employers (15 of which have never recruited an apprentice before and 22 SMEs).

**£1.8m**

has been set aside for the project which will help re-employ apprentices

£1.8m has been set aside for the project which will help re-employ apprentices who have suffered redundancy in the Tees Valley as a result of the economic downturn.

Heather Smithson, TVAP Project Manager said, "we continue to fulfil our aims and ambitions for the project, by providing apprentices in the Tees Valley the opportunity to develop a solid set of skills required to sustain themselves in the workplace and progress to become the skilled workers of the future."

Apprentices provide a real return on investment for employers and also bring with them the opportunity to inject new and innovative ways into long established working methods.

Cleveland Potash Ltd (CPL) is working with the TVAP Project Team to take the lead on supporting Apprenticeship programmes on a company wide basis. Craig Hargreaves, Training Manager, said "Apprentices are an integral part of CPL's future and we will continue

to do all that is possible to retain the best talent from within the industry. That's why we have taken the lead year on year investing in our Apprenticeship Programme."

CPL is raising the bar and has pledged to support apprentices further by encouraging the employment of apprentices throughout the entire supply chain. This is a fantastic commitment, both to apprentices and to the industry itself. With the support of the TVAP, employers of all sizes have the opportunity to seek support and guidance and to make a real difference to the future of engineering within the Tees Valley.

Craig adds, "we have recently worked with TVAP and have pledged our support for apprentices within our supply chain. What this means in essence is that whilst we are not able to take too many more apprentices in our programme we will "encourage" our contractors to do so."



**APPRENTICES ARE AN INTEGRAL PART OF CPL'S FUTURE AND WE WILL CONTINUE TO DO ALL THAT IS POSSIBLE TO RETAIN THE BEST TALENT FROM WITHIN THE INDUSTRY.**

Craig Hargreaves,  
Training Manager

# National Skills Academy embraces Biotechnology and Composites sectors

**Confirmation of Government approval for the National Skills Academy Process Industries' bid to extend its scope has been received from BIS (the Department for Business, Innovation and Skills).**

The unique development will see the Academy extend its remit to cover two new dynamic sectors – biotechnology and composites – making it the first National Skills Academy to receive an extension to its industry coverage.

Skills Minister John Hayes said, “composites and biotechnology are highly competitive sectors around the world and both are poised for substantial growth. If we want to secure that growth and investment in the UK, it's vital that we can provide a highly skilled workforce.”

Welcoming the announcement, Phil Jones, Academy CEO said: “On behalf of the employers in these fast emerging sectors, we'd like to express our delight with the announcement. We've been very busy since March 2010 when we found out that our preliminary bid had been successful, gaining the support of biotechnology and composites employers, and we're

very energized about delivering programmes for our two new sectors.”

The Academy will work with Semta (Sector Skills Council for science, engineering and manufacturing technologies) on areas of common interest in the composites industry to best meet the needs of employers.

The Academy will deliver training to these sectors through a network of Academy Accredited Training Providers. The first of these, City and Islington College, has been confirmed as a Centre of Excellence in Biotechnology for the Academy.

Daniel Norris, Deputy Director for Innovation at City and Islington College's Centre for Applied Sciences said: “we believe that City and Islington College and the Academy's extension will help to meet the skills shortages in new emerging technologies which will become increasingly important for Britain's economic recovery . . . we welcome the opportunity to work with Cogent and the Academy to create sustainable employment for young people in this exciting new area.”

The Academy is a subsidiary of Cogent, Joanna Woolf, Cogent



Centre of Excellence: City and Islington College's Centre for Applied Sciences

CEO added: “this is great news for employers who can now be confident that the education and training provision they need to meet

their ambition in these strategic growth sectors is quality assured, fit-for-purpose and built upon Cogent employer-driven standards.”

## Academy Accredited Provider Network goes from strength to strength

**The Academy Accredited Provider Network was established just under two years ago and today it has over thirty training providers. Providers who join the network are key to bridging the skills gaps faced by employers in the process industries.**

Private and public sector providers of all sizes, backgrounds and specialties are invited to join the network, creating an inclusive group of quality-assessed providers for employers to tap into.

Providers sign up and have their products assessed and accredited to national standards agreed with Cogent. This allows Academy Accredited Providers to use the Academy logo as a kitemark of quality.

Angela Lupton of Chester

University's Innovation & Development Directorate, said: “membership of the Process Skills Academy gives the University of Chester direct access to those employers looking for specialist higher level training programmes.

“The Universities Higher Level Skills Partnership funding from the NWUA means we are able to offer employers in the bioscience and process industries specialised, work centred, training programmes and our Employer Engagement project reduces the cost of these programmes to the employer. We look forward to working more closely with the Academy when the University's new Innovation centre opens at the Riverside campus.”

Gemma Osula, Skills Academy Network Services Manager said, “achieving Academy accredited

status brings with it many business development opportunities. It also gives training providers a key role in the development of products and services and a head start through our Business Referrals service.”

Providers which have joined recently:

- Virtual College - Academy Centre Business Improvement
- TTE (Training Tomorrows Engineers) (NW) – Academy Centre for Business Improvement and Technical Competence
- Qualitrain – Academy Centre for Business Improvement
- Distance Learning and College (DLC) Training – Academy Centre for Business Improvement
- Grimsby College – Academy Centre for Leadership & Management

- HFL Risk Services – Aspiring Centre of Excellence for Process Safety Management
- PERA – Academy Centre for Business Improvement
- Newcastle – Aspiring Centre of Excellence for Technical Competence and Academy Centre for Leadership & Management
- Pembrokeshire College – Centre of Excellence for Technical Competence
- Chester University (First HEI Partner)
- City and Islington College – Centre of Excellence for Biotechnology

For further information on the accreditation process please contact Gemma Osula, Skills Academy Network Services Manager on [g.osula@process.nscademy.co.uk](mailto:g.osula@process.nscademy.co.uk) or call 01925 515 241.

# Launch of the Southwest flagship Centre



Flagship centre will be of huge benefit to the nuclear industry

## NSA Nuclear celebrates self sustainability

The Rt Hon the Lord Jenkin of Roding, as Honorary President of the National Skills Academy for Nuclear, hosted an afternoon reception at the House of Lords on the 27 January to mark the Skills Academy's transition from being a partly government funded organisation to becoming a really strong and self-sustainable organisation which is an effective and proactive driver for the skills agenda across the nuclear industry.

Three years ago, on behalf of the nuclear industry the Skills Academy achieved the government's green light on its business plan for a National

Skills Academy for the Nuclear Industry. In just three short years the Skills Academy is delivering on many of the objectives that industry has set:

Aiding in the development of the capacity of capability of the UK Nuclear workforce to support the achievement of the industry's 2020 vision.

Creating and developing excellence in skills for the nuclear industry via;

- The implementation of nuclear industry agreed standards via the Nuclear Skills Passport
- The development and growth of the High Quality Provider Network

- Providing Quality Assurance for deliverers of training via the Skills Academy QA process and NEF Assured (Nuclear)
- The development of a number of products and services specifically for the needs of nuclear including, Award for Nuclear Industry Awareness (ANIA), Certificate of Nuclear Professionalism and the Triple Bar Entry Standard
- Provides a platform that enables the different sub sectors of nuclear to come together to explore the skills needs and agree dynamic and innovative solutions.

Joanna Woolf, Cogent CEO

said: "The dedication of the team at the National Skills Academy for Nuclear, led with tremendous enthusiasm by Chief Executive Jean Llewellyn, has turned its vision into a sustainable, commercial reality. They now have excellent employer commitment from right across the supply chain, which reflects the importance of the Skills Academy to the industry. We look forward to a continued successful partnership on the skills agenda."

The Skills Academy will continue to be led by nuclear employers, delivering skills solutions for the nuclear industry by the industry.



The Skills Academy team and guests celebrate its sustainability



The National Skills Academy for Nuclear celebrated the opening of its Southwest flagship centre on the 24 January. The centre is the second capital build project receiving significant capital investment from the Skills Academy and is truly a collaborative effort, financed by a range of strategic and funding partners including main funder EDF Energy, Bridgwater College, Skills Funding Agency / Skills Academy, SWRDA, NDA and Energy Solutions.

The centre will be of huge benefit to the nuclear sector aiding in recruitment and equipping people with the right competencies and skills to ensure the sector has a world-class skilled workforce that

can operate safely, effectively and meet the future requirements of this rapidly changing industry.

David Bonser, Chair of the National Skills Academy for Nuclear said; "The launch of the Energy Skills Centre is excellent news for the National Skills Academy Nuclear, the nuclear industry, and for its future workforce. Reflecting the ethos of the Skills Academy, the Energy Skills Centre will be a world class centre for the provision of excellence in vocational skills, training and development, providing Skills Academy Quality Assured training for apprentices and others training to work in and with the nuclear industry all, of which will be recorded on the Nuclear Skills Passport."

## Skills Academy masterclass "unmissable"



The Skills Academy works with its providers to enhance and improve their offering to the nuclear sector. One example of this is via the Skills Academy Masterclasses. The Skills Academy completed its second Masterclass in early December which specifically focused on providing Quality Assured training personnel with experience of a nuclear environment to help to enrich their training.

Despite the extremely cold weather, tutors from several of the Skills Academy's Quality Assured Providers braved the elements and successfully attended and completed the Award for Nuclear Industry

Awareness (ANIA) Masterclass.

The Masterclass was once again this year kindly hosted by Magnox North Ltd, Wylfa Power Station Learning and Development Team in December. Pictured are the tutors with the members of the Wylfa Reactor Plant Simulator Team during an exercise where the tutors were involved in different simulated reactor operating scenarios.

Tutors found the whole experience of being able to see and really experience an operating nuclear environment and interact with Nuclear Site specialists unmissable and one that will greatly help them to deliver nuclear aspects for learners to achieve the ANIA national qualification.



# Gold Standard sets world class benchmark

**The Gold Standard, Cogent's competency framework for job roles in the process industries, continues to be taken up by a range of companies across the sector.**

John Holton, Cogent Strategy Development Director says, "employers tell us that through using the framework they can be confident employees' skills are being developed to an industry-endorsed standard. It's an approach that sees improved productivity and enhanced individual performance."

Each Gold Standard job role maps the competencies required to the relevant Gold Standard training. The framework covers a wide range of roles from Level 2 to professional status, across four areas of competence:

- Technical Competence
- Compliance
- Business Improvement
- Functional and Behavioural

The Gold Standard can be used as:

- An industry route for upskilling and re-skilling
- A tool to ensure investment in training meets business needs
- A route to accredit existing skills and identify gaps
- An indication of the behaviours that are valued, recognised and rewarded
- To underpin recruitment, appraisal and promotion activities

## Using the Gold Standard

The National Skills Academy Process Industries' Skills Assurance process enables organisations to work towards the Gold Standard. This benchmarks a company's skills and identifies training gaps using the framework. Through a unique referral system the Academy can then identify cost-effective, accredited training provision which meets the skill requirements of the company.

## Using the logo

Undertaking Gold Standard benchmarking shows an organisation's commitment to world class skills. It also means that companies can display the logo on stationery and receive a Gold Standard certificate.



| Snapshot from a Gold Standard job role (extract only) |   |  |
|---|---|--|
| Four areas of competence                              | An example competency statement   | Example Gold Standard Qualifications                                     |
| Technical Competence                                  | Control and monitor a process   | L3 Diploma in Operations and Technical Support in the Process Industries |
| Compliance  | Application of a variety of safety management systems such as Permit to Work, Standard Operating Procedures and Risk Assessment | NEBOSH Award in Workplace Health and Safety                              |
| Business Improvement                                  | Understand the principles associated with business improvement techniques   | L3 NVQ in Business Improvement Techniques                                |
| Functional and Behavioural                            | Provide leadership for the team   | L2 Award in Enterprise Awareness   |

\* many qualifications set out in the Gold Standard are recognised by professional institutions

lan Travers from the Health and Safety Executive (HSE) said, "the HSE is keen to support the development and delivery of training and coaching for Board members and managers in process safety... we also place great emphasis on improving the competence and skills of staff at all levels within processing industries and so am encouraged to see the developments in the Gold Standard"



For a no obligation chat about progressing the Gold Standard through Skills Assurance:  
 T 0845 607 0140  
 E [enquiries@process.nscademy.co.uk](mailto:enquiries@process.nscademy.co.uk)

## Semcorp Utilities gains Gold Standard recognition

**Semcorp has been awarded the prestigious Gold Standard Certificate in recognition of its commitment to working towards the national industry standard.**

Semcorp has demonstrated this commitment through the

Assessment System for Employer Training (ASET) delivered by the National Skills Academy Process Industries. This provides important recognition for the content, quality and delivery of company in-house training, and workforce competence.

It works by benchmarking employer-delivered training against the competency requirements set out in the Gold Standard.

Phil Jones, Chief Executive at the Academy said: "this recognition demonstrates that Semcorp is committed to being world class. The ASET process is a rigorous and thorough assessment of in-house training, which gives employers Academy recognition for the training programmes they have developed to meet their needs."

"Semcorp has provided a clear demonstration of workforce competence – showing that its training meets the important requirements set out in the Cogent Gold Standard. In addition the learners have gained credit and

recognition for their hard work and achievements."

George Ritchie, Senior Vice President at Semcorp Utilities (UK) Ltd said: "We are delighted to gain this important recognition. The ASET process has helped us to assess the quality of our training and development programmes. The added benefit of our employees gaining official recognition for training undertaken enhances their own development."

He added, "Semcorp recognises that skills development plays a major role in business performance, as well as improving safety and financial performance. It also supports morale within the company, during what is a very tough period for the economy and the industry."



# Nuclear Job Contexts set the benchmark

**Nuclear Job Contexts continue to provide an important national framework for competences, training and qualifications in the nuclear industry.**

They are families of nuclear job roles developed by Cogent, with industry inputs. The Job Contexts are an aspirational standard organised around four skills areas:

- Technical Competence
- Compliance
- Business Improvement
- Functional and Behavioural

Each job role within a Job Context sets out the qualifications and training that provide a route to securing skills across each of these competences.

Job Contexts developed so far are:

- Nuclear Decommissioning
- Radiation Protection
- Nuclear Process Operations
- Nuclear Maintenance

Les Agnew, Sellafield Ltd said: "we refer to Cogent Job Contexts to provide a skills benchmark for job roles across our



operations. They allow us to identify and cross-check skill needs while providing a significant resource to ensure industry-wide standards are maintained. By identifying the broad qualifications and training that are needed to undertake key nuclear roles, Job Contexts underpin industry competence."

The Nuclear Skills Passport which is being rolled out by the National Skills Academy for Nuclear is founded upon the Cogent Industry Training Framework, which includes Job Contexts and Industry Training Standards.

## Catalyst offers project opportunities for SMEs

**Catalyst, the North West-based interactive science centre has been given support by the European Regional Development Fund (ERDF) to work with 18 SMEs to engage more young people with science and technology. This assistance should help encourage more young people to enter into the North West's high skills science economy.**

Catalyst can work with SMEs in a number of different ways:

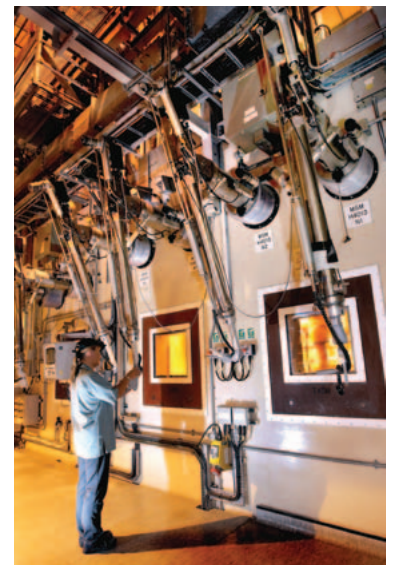
- To improve the science communication skills of either a small group or an individual
- To work with personnel to deepen an understanding of how to communicate complex scientific concepts

- To create an activity for training new staff in disseminating the science involved in the company's products

Catalyst sets out a number of benefits including the opportunity for staff-development on a project not directly associated with an individual's role, but which uses workplace knowledge, giving them an opportunity to grow in confidence and ability.

Catalyst is not seeking sponsorship or donations for these opportunities. Costs would be in-kind in terms of staff time and resource. For further information or to discuss a possible project please contact:

Stephen Youd-Thomas, Catalyst Science Discovery Centre, 0151 420 1121  
[www.catalyst.org.uk](http://www.catalyst.org.uk)



## Employer-led skills strategy for growth

**Working with the Nuclear Employers Steering Group Cogent (NESG) Cogent continues to ensure its skills strategy for the nuclear industry is focused on the development of a highly skilled workforce to undertake decommissioning, processing and new build activities.**

This strategy is focused on providing the high level direction on skills for growth in the nuclear industry, a priority sector of the economy. Central to the strategy is the continued direction from the NESG, which will continue to work in partnership with the National Skills Academy for Nuclear to ensure the very highest standards throughout the supply chain.

Clive Smith, Cogent Skills Director for Nuclear said, "our strategy is informed by nuclear employers and

we continue to work with them to ensure that that both our direction and our plans are relevant to the industry and up-to-date."

### Key deliverables for 2011

**On Qualifications:** Cogent will further refine and extend the existing suite of qualifications.

**On Research:** Cogent will produce research to establish the size, shape and geography of the workforce, and its skills needs for the future.

**On Careers –** Cogent will keep the nuclear Careers Pathways information up to date and evaluate use by employers [www.cogent-careers.com](http://www.cogent-careers.com)

Further detail can be found in Cogent's Nuclear Industry Strategic Action Plan

[www.cogent-ssc.com/Skills\\_Policy/industrystrategies.php](http://www.cogent-ssc.com/Skills_Policy/industrystrategies.php)



# Nuclear Island gets funding go-ahead

**The employer-backed Nuclear Island project is being moved to the next stage following a successful funding bid to the National HE STEM programme.**

This will see the immediate development of a Nuclear Island module, developed in partnership with Imperial College London in association with universities across England and Wales. A trial will take place in June, with a view to roll out next Spring.

The National HE STEM program is funded by the Higher Education Funding Council for England (HEFCE) and Wales (HEFCW), and its decision will secure the development and delivery of the Nuclear Island.

The Nuclear Island itself will be nationally available, hands on New Build experience for STEM students, and will engage a wider range of partners across the UK, including the National Skills Academy Nuclear, ECITB, Construction Skills and professional bodies.

It will establish partnerships between employers with Higher and Further Education Institutes to tackle the critical future higher level workforce needs of Nuclear New build.

Jean-Jacques Gautrot, Chairman & CEO, AREVA UK has said, "AREVA UK Ltd supports Cogent and Imperial College London in their bid to build a Nuclear Island model. It is important that engineering skills are developed at all levels in order to feed the needs of the industry."

The Nuclear Island will become an integral part of a number of UK STEM

undergraduate courses. For the first time, nuclear safety culture would be an essential part of construction engineering courses, embedding critical safety behaviours from day one.

The project is being run through collaboration between Imperial College London, Cogent SSC, the Royal Academy of Engineering, Constructionarium, ECITB, and Construction Skills.

To get involved, please contact: Dr Caroline Sudworth [caroline.sudworth@kogent-ssc.com](mailto:caroline.sudworth@kogent-ssc.com)

## September launch for foundation degrees

**With organisations facing global challenges, there's never been a greater need for a highly skilled workforce. Cogent and a consortium of Universities has consulted with leading employers and designed bespoke programmes which support workforce development needs.**

The *Working Higher* initiative has developed a suite of flexible, work-based foundation degrees that tackle real skills issues, both now and in the future. The programmes allow learners to develop technical as well as wider employment, business and specialist skills.

**The Universities are:**

- Bioscience – University of Kent
- Chemical Science – Manchester Metropolitan University
- Nuclear Engineering – University of Central Lancashire (delivered by a regional provider network)
- Polymer Technology – London Metropolitan University
- Process & Chemical Engineering (for first line supervisors) – University of Hull

**Target audience:**

Process operatives; Laboratory technicians; First line supervisors; other related roles where upskilling is needed to meet current and future business needs.

Key features of the programmes include:

- Shaped by employers
- Flexible delivery meaning minimal time away from the workplace
- Integrates technical and work-based skills with academic knowledge
- Modules can be taken as stand alone Continuing Professional Development
- Relevant to business needs
- Modules include process safety; business improvement techniques; good manufacturing and laboratory practice; regulation and compliance and leadership and management

Each foundation degree is customised to meet the needs of each industry. If you would like to find out more or register learners on one of these programmes, which start this September, please contact

Pauline Maden, Working Higher Project Manager, [pauline.maden@kogent-ssc.com](mailto:pauline.maden@kogent-ssc.com) 01925 515214

## Technician training for bioscience gains momentum

**Cogent is developing a number of clear pathways to meet employer demand for highly skilled technicians in the bioscience sector.**

Dr Caroline Sudworth, Cogent HE Manager said: "the true value of practical hands on skills training, supported by relevant education has suffered, with professional recognition of technician roles becoming vague in recent years. We are rolling out some key projects to meet this critical skills need and ensure greater recognition."

**The following routes are in development:**

### Working Higher

Cogent and the University of Kent have developed a new industry standard technician training programme in Bioscience. The programme is ideally suited to those that have little or no formal qualifications post GCSE/A Level/HNC.

### Higher Level Apprenticeship

Supporting alternative technical training pathways for school leavers, aligned to the Working Higher foundation degree.

### Bioscience Degree Accreditation

Through greater collaborative working offered by the Life Sciences Advisory Council, Cogent is helping to develop undergraduate programmes to deliver the skills needs of the bioscience sector, engaging widely with the Society of Biology, the ABPI and the HEA Subject Centre for Bioscience.

Placement and internship programmes are also vital to the development of practical and employability skills, and Cogent is engaging with a number of partners to help develop and increase the delivery of these opportunities across Higher Education.

# New vision for apprenticeships

The Government's new skills strategy, *Skills for Sustainable Growth*, is aimed at building a skills system where responsibility is shared between Government, employers and learners.

Joanna Woolf, Cogent CEO said: "crucially, the report sets out plans to increase investment in and prestige of Apprenticeships and to ensure clear routes from Apprenticeships to higher level training.

"This is a key part of our strategy and is of vital importance to the advanced industries we represent, who need constant a supply of skilled employees with highly specialist training."

John Hayes, Secretary of State for Further Education and Lifelong learning, has declared that, "apprenticeships will be at the heart of the system we will build, supported by a system of valued qualifications."

"This Government believes apprenticeships are a key component to upskilling the workforce and are one of the best forms of work-based learning. We proved



this commitment in our recent announcement that we will provide an extra 75,000 apprenticeship places a year by 2014-15."

Evidence of rising participation in apprenticeships suggests there

is scope to significantly increase apprenticeships. Cogent figures show that the number of individuals starting apprenticeships in the Sector has increased by 48% in the last 4 years.

The Government will also increase annual funding for adult Apprenticeships by up to £250m above the £398m a year funding inherited from the last Government, by 2014-15.

## Second phase for energy apprentice scheme

**Over a 90% of the learners on the pilot programme for the East of England Energy pre-apprenticeship have now entered full time employment and Advanced Apprenticeships with local employers.**

This ground-breaking programme has now started a second year, based at Lowestoft College, with a new intake of people starting a career in the energy sector.

The Skills for Energy initiative has been developed by a wide range of companies and training organisations including Cogent and the Engineering Construction Industry Training Board (ECITB).

The one-year programme provides hands-on experience in relevant skills and is aimed at closing a pressing skills gap in the region. It was designed with employers to enable young people to pursue a career in

energy and to help them gain an Advanced Apprenticeship with a company.

The programme has been shortlisted for the EEEGR Energy Innovation Awards 2011.

## Programme progress

**Employers in the Cogent sector continue to make great progress with the Apprenticeship Expansion Programme, with the first learner completing Level 2, and now embarking on a Level 3 Apprenticeship.**

The Cogent brokered National Apprenticeship Service (NAS) scheme has secured 46 subsidised apprenticeships, and is aimed at increasing the number of apprenticeships in the science-

using Sector. Ian Lockhart, Cogent's Apprenticeships Manager said: "this project is boosting the number of young people entering the sector, while making it easier for companies to take on an advanced apprentice.

"the apprentices benefit from developing in one of the following fields nuclear, processing, polymer or signmaking. Working with high quality companies will give them a great start in their career."

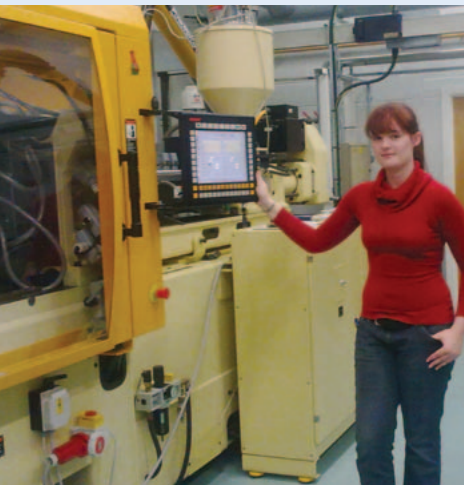


### STOP PRESS...

the Apprenticeship Grant for Employers (AGE) is available to employers across the East Midlands with less than 50 staff, who are willing to take on an unemployed young person. The value of each Apprenticeship Grant for employers can be up to £2000... call 01246 500 500 Ext 4291 or e-mail: [age16-18@chesterfield.ac.uk](mailto:age16-18@chesterfield.ac.uk)

CASE STUDY

# Women and work is a success story



Amber Hamson says she is more confident

**Cogent continues to roll out its UKCES Women and Work programme, exceeding its original target of 100 learners. Seventeen extra places were granted to fulfil additional demand. The programme targets training opportunities at women in the Cogent Sector, where women are under-represented across many roles.**

### Amber's Story

Amber Hamson is an 18 year old Polymer Apprentice working for forward thinking international company Becton Dickinson (BD). Amber left school at 16 with excellent GCSE grades in maths and the sciences and was keen to progress through an Apprenticeship route. BD Diagnostics subsequently snapped

her up as an apprentice.

The Women and Work fund has allowed Amber to continue her studies at Wolverhampton College's state of the art Polymer Training and Innovation Centre (PTIC). She has undertaken a Level 2 and 3 Injection Moulding Technology, together with the Safe Mould Change Procedures option. Amber said, "this is a recognised industry standard course and I now feel more confident . . . and get involved with operating the moulding machines myself."

Julia Bennett, Cogent's Women and Work Project Manager said: "The project has a real capacity to change lives and perceptions of women in the Cogent Sector industries. Through it, women are being given fantastic opportunities they have often never thought possible."

# Northern Ireland schools careers boost

**Cogent and the Department of Education and Learning in Northern Ireland (DEL), are working together to encourage the uptake of STEM subjects.**

With funding from DEL, Cogent has produced an educational package for year 10 pupils which encourages them to consider roles in the science-based industries. The package guides pupils to explore Cogent's Career Pathways website and case studies, so that they can discover what roles may be available to them.

Cogent is targeting 100 Northern Ireland schools through the project. Hugh McGurk Cogent's Northern Ireland Manager said, "the pharmaceutical, polymer and



"great success" – pupils and teachers who attended the STEM event at Loreto College, Coleraine

chemical industries are hugely important to the economy here. It's vital that these industries remain viable and growing, and new intake is a key success factor for this."

Julia Bennett the Project's Manager added, "it's very rewarding to talk

to the year 10 pupils and encourage understanding of the industrial base. The pupils are often unaware of how much in their everyday surroundings are produced by these industries and what careers might be available to them."

# Welsh employers are going for gold

**Cogent and The National Skills Academy Process Industries are inviting employers in Gwent and Pembrokeshire to take part in their Gold Standard programme. This is providing Welsh pharmaceutical, chemical and petro-chemical employers with the world class skills they need to succeed.**

The Welsh Assembly Government's Sector Priorities Fund Pilot subsidises employee training and provides financial support to help Welsh training providers deliver key Gold Standard qualifications.

Cogent and the Academy have published tenders for the delivery of the Gold Standard training and providers are being supported to build capacity.

The process includes an Academy assessment of employer training needs,

with the aim of identifying skills gaps and bringing workforce skills up to the Cogent Gold Standard, as well as liaison with the approved providers. Employers are expected to make a matched financial contribution.

Andrew Evans, Cogent's Wales Manager said: "the aim is to boost company productivity and ensure workforce skills are up to world class levels. The project's longer term objective is to make sure that Wales retains its major process employers and to sustain employment across this vital sector which is facing the twin challenges of increasing global competition as well as rapid technological change."

*This project is supported by the Welsh Assembly Government's Sector Priorities Fund Pilot programme that also receives support from the European Social Fund.*



**Cogent and the Skills Academy** have negotiated funding for the process industries through the Government's Joint Investment Programme. Capacity is now available for learners able to start in March 2011. Places will be allocated on a first-come-first-served basis! Surplus interest will be held over for possible funding in Year 2. Employers should contribute 50% towards the cost of the programme. Call us on 0845 607 0140 for more information – mentioning JIP.

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