

ISSUE 10 ■ Summer/Autumn 2010



# SkillsImpact

Setting industry skills standards



**SHAPING FUTURE SKILLS**  
new sector-wide research

**SKILLS ACADEMY**  
supports apprentices

**GLOBAL FIRST**  
Nuclear Skills Passport

**WORKFORCE  
COMPETENCE**  
through the  
Gold Standard

# 2020 – the vision is clear



Joanna Woolf  
CEO

**Welcome to Cogent Skills Impact, a round-up of news and developments taking place in the science-based skills arena.**

All forecasts show that by 2020 the UK economy will be much, much more knowledge-intensive and that science and advanced technology will continue to set the pace in all sectors.

This is not news to the employers in the Cogent science-using Sector who are already highly dependent upon high level skills. Innovation is their lifeblood and many of the employers in the Sector have achieved tremendous performance success through new products and processes.

Employer leadership is supporting our programmes designed to further boost skills and innovation into every part of the UK's science-base.

We need to see more people coming into the Sector with a science or engineering education, and we're working to bridge the

gap between the academic and the practical at school. We're also seeking to improve the preparedness of university graduates for the world of work.

All of this is backed up by our mission to improve the advice and guidance out there about the exciting jobs in the Sector and qualifications and training on offer.

Cogent will work to ensure that the very best and most appropriate qualifications and standards are in place and that they are accessible through the National Skills Academies for Nuclear and Process. This ranges from small, flexible qualifications through to "step on, step off" Foundation Degrees.

We also support the need to ensure employees themselves are at the heart of the learning process. And a continued move towards a system which meets requirements of both employers and employees.

## Maximising impact on skills

**The current economic climate has prompted organisations across the UK, not just those in the public sector, to evaluate the effectiveness of their businesses and review their impact in terms of value for money.**

Cogent, as part of its business review and planning cycle, has undergone a review by independent auditors Baker Tilly. By reviewing the Return on Investment of the activity of a sample of 5 Sector Skills Councils, including Cogent, they revealed that £100m of public gain was achieved by only £5m input from the public purse.

The impact of the work being done to develop sector-specific qualifications in consultation with employers in our sector is also regularly assessed. Although the impact of Train to Gain funding

was questioned, in part, by the National Audit Office, it is clear that science-based industries have reaped significant benefits.

Over 10,000 learners have now benefited. The value has also been recognised by Vince Cable, Secretary of State for Business, Innovation and Skills and President of the Board of Trade who has already informed his staff at BIS that, "we are determined to raise skills levels and opportunities for lifelong learning ... which supports a strong employer

voice, including through the design of apprenticeships and other qualifications."

In a speech, Mr Cable added; "bringing HE, skills and enterprise together under the one departmental roof is central to the 'BIS dividend'. My priorities are an increased emphasis on lifelong learning, stripping out some of the bureaucracy around FE and making sure that the outdated value distinction between blue collar apprenticeships and further education on one hand and

university on the other is disposed of for good."

Cogent, together with its Academies, will continue to work to ensure that it is strategically placed to represent employers in a cost-effective way and deliver the qualifications and training that they need.



## Big Tickets to advance science skills

**The industries in the Cogent Sector 'fit' together, sharing common high level skills needs. The Sector is science-led and forms a hugely significant part of the UK's manufacturing and energy infrastructure.**

Cogent has consulted widely with the Sector to define its strategy and has developed priority areas for action. Delivery is through five 5 "Big Tickets":

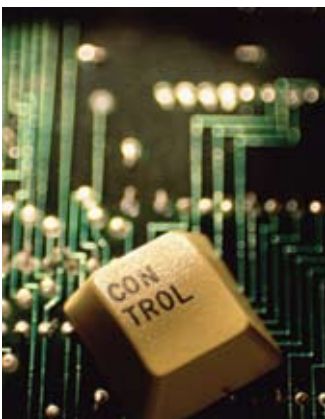
1. **Cogent Skills Standards and Qualifications:** Cogent develops employer-led qualifications that underpin its competency-based Gold Standards (process) and Job Contexts (nuclear).
2. **Cogent Apprenticeships:** Apprenticeships provide the vital supply of skilled employees for the future and our job is to ensure the right number of entrants to meet the future sector needs.
3. **Future Skills:** Cogent's Future Skills research

programme provides the essential intelligence to inform future skills needs.

4. **Cogent Career Pathways**  
This is the recognised reference for careers in the Cogent science using Sector.
5. **Cogent Skills Benchmarking**  
Cogent is setting the standard for skills in the Sector and developing the tools to allow companies to assess their performance against these standards.

Cogent works in a strategic Skills Alliance with the Academies for Nuclear and the Process Industries in order to develop and quality assure vocational training that is valued and used by every company they represent.

If you want to find out more about any of Cogent's programmes contact us on 01925 515 200 [www.cogent-ssc.com](http://www.cogent-ssc.com)



# Promoting the science-based Sector

A key part of Cogent's role as a Sector Skills Council is to promote career opportunities available within the Sector. Ian Moores, Cogent's 14-19 Manager said, "manufacturing in the UK is leading the economy towards recovery and it is vital that we deliver the right information to those who are either just starting out in their careers or those who are looking for a change."

Cogent's web resource, [www.cogent-careers.com](http://www.cogent-careers.com) sets out a range of career pathways which provide in depth, detailed information about the roles within the different science-based industries. Users can access case studies, employer information and an interactive map of the UK.

Continues Ian, "the manufacturing world requires motivated and creative individuals, employees who have an understanding of all aspects of manufacturing and can apply their knowledge to a range of settings.

Cogent's research shows that

employees in technical roles will also increasingly need to have a range of transferable skills such as strong numeracy, communication and team-working. Personal attributes like self-motivation and flexibility are becoming increasingly important to the industries.

## Skills Fairs

Encouraging people to join these strategic industries starts with schools and Cogent attends a number of skills events across the UK promoting the Sector to school age pupils. The events are also used to collect information from the pupils to inform its approach to careers attraction.

Cogent focuses at a high level to ensure that the Cogent footprint industries get visibility within the national and regional Science, Technology, Environment and Maths (STEM) agendas, rather than duplicating initiatives ongoing elsewhere.



The Cogent career pathways site is used by many organisations with a jobs and careers guidance remit, and a recent survey showed that the resource is used by a third of all careers advisers.

## Career pathways makeover



Cogent's Matthew Lowe chats to students at Skills NorthWest

The popular Cogent Career Pathways tool [www.cogent-careers.com](http://www.cogent-careers.com) has been upgraded.

There's a brand new home page and improved navigation, with revised pages for existing industries and new pages underway for composites and biotechnology.

Each of the industry pathways has been examined by Cogent's industry leads, with input from employers across the Sector to bring the all-important role profile information up-to-date and to show

more of the sideways progression opportunities.

Cogent has also embedded Skills Match, <http://www.cogent-skillsmatch.com> into each page, as well as a new employer and HE provision map. New video 'real life' case studies have been added.

The resource shows young people that the Cogent industries traditionally provide well-paid, long term careers and opportunities to progress in the UK and in some cases around the world.

## New Diplomas mean new options

Students exploring their options can now choose a qualification that will give them an insight into the world of manufacturing or engineering.

Cogent has contributed to the development of both the Diploma in Manufacturing and Product Design (MPD) as well as the Diploma in Engineering. The qualifications are aimed at preparing young people for the world of work by giving them a fully-rounded education.

Martin Bevan, UK business manager for SMC Training, a division of global pneumatic component giant SMC International,

said: "employers working with schools and colleges will have the chance to nurture and shape future workers. The Diploma in MPD offers a link between industry and education and it is hoped that working with employers will inspire young people to aim for a career in the sector."

Diplomas are for 14 to 19-year-olds and are developed to sit alongside GCSEs and A-Levels. They provide a solid foundation either for pursuing a career in industry or undertaking further qualifications.

For more information visit: <http://yp.direct.gov.uk/diplomas/>



# New build research – “job creation equal to 3 London Olympics”



Last year Cogent embarked upon a series of four *Nuclear Renaissance* reports and has launched two of these *Power People* and *Next Generation*.

Prior to these research reports the nuclear industry workforce had been estimated from limited secondary data which hampered future skills projections. This series returns the industry to full manpower data.

Dr Brian Murphy, Cogent Director of Research explains, “this research is the first of its kind in the world. It identifies the critical skills for tomorrow’s UK nuclear renaissance today. It is the best intelligence of the skills bodies who have formed the Nuclear Energy Skills Alliance.”

Next Generation required extensive collaboration and the partner organisations were brought together by the National Skills Academy for Nuclear and Cogent. The research is supported by the Office for Nuclear Development.

This latest report revealed that job creation on the scale of three London Olympics would be generated by a significant nuclear new build programme.

Thousands of training opportunities, new apprenticeships and new jobs will be needed in



the construction, manufacturing, operation and maintenance of anticipated stations over the next 15 years. Up to 30,000 new jobs could be created in an ambitious building programme.

The next two in the *Renaissance* series are *Assurance: Skills for Nuclear Defence* and *Illuminations: Future Skills for Nuclear*.

Cogent carries out surveys to evaluate its reports. Its online survey into *Power People* showed that 89 per cent of the respondents said that it filled a gap in national data and 93 per cent rated the quality of the research as excellent.

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

## Technological change driving a ‘massive’ need for skills

Cogent’s latest Sector Skills Assessment (SSA) report brings together all its research to provide an authoritative, rigorous and forward thinking analysis of the Cogent industries’ skills needs in the UK. Cogent sector industries add value through skills-intensive products that support the infrastructure of modern society itself – energy, health, transport and materials.

One thing is clear – the pace of technological change in areas such as biotechnology is driving a massive need for workforce development.

The SSA report reveals some important skills challenges in relation to bioscience and biotechnology:

- Targeted Technical Foundation Degrees, Higher Apprentices and Technical Masters in Biotechnology/Bioscience should be supported

- A ‘Bio Primer’ series in Industrial Biotechnology and Industrial Bioscience should be developed with industry

- The skills mix in the future is likely to be higher, wider and more interdisciplinary

- In manufacturing, the ‘factory of the future’ will be more flexible and responsive to technological innovation

- There will be significant skills inflation in the sector; technical occupations will require a higher proportion of graduate skills

- Acquiring these skills will generate new challenges for employers, especially in those areas that are already “hard-to-fill”

- The market for postgraduate skills will be more competitive as the pool is

smaller and more sought after

- With the emphasis on applied research in IB, work experience will provide practical skills for graduates/post graduates alike

- Technicians capable of running the equipment associated with the development of the technology will be needed

Dr Brian Murphy, Cogent’s Director of Research said: “as a location, the UK has a number of potential advantages for an IB future: a large domestic demand for sustainable materials, a sophisticated consumer market, strong regional Clusters, a strong science and engineering base and one of the strongest global R&D capabilities in biotechnology.”



# Skills “FTSE” provides sector barometer

## Skills Oracle headline findings for the Science-based industries:

- Annual average company turnover in employment is approximately 15%
- 57% of Cogent employers report professional scientists and engineers vacancies are ‘hard to fill’
- Annual training budget average was £930 per employee
- Cogent employers were satisfied with the coverage of qualifications across the sector
- Health, Safety and Environment (HSE) training was the most frequently reported training undertaken
- 94% of Cogent employers use ‘Private Training’ providers; 80% use ‘FE’ providers; and 51% use ‘HE’ providers
- The majority of Cogent sector employers (83% and 78% respectively) place a high level of importance on the supply of Apprentices and Graduates to their workforce
- 81% and 74% (respectively) of Cogent employers invest in ‘Competence Based’ and ‘Technical’ training of the existing workforce, with 64% of employers investing in ‘Professional/Higher Level’ training
- 83% of Cogent employers report skills gaps and shortages had some, or significant impact
- 65% of Cogent employers report that competence based skills needs have increased in the 12 months preceding the survey
- Securing funding, improving access to training courses and encouraging young people into the sector, are viewed by Cogent employers as the highest priorities for a Sector

Should you wish to take part in the next Skills Oracle survey please email Julie Plumbley at: [julie.plumbley@coagent-ssc.com](mailto:julie.plumbley@coagent-ssc.com)

**Cogent’s unique project which gathers primary labour market intelligence from companies across the Cogent science using sector, has seen the publication of five industry-specific reports – as well as a sector-wide report.**  
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.

Julie Plumbley, Cogent Project Manager, explains: “in the past we’ve relied on national data sources - Skills Oracle give us a much more in depth view of companies in the Cogent footprint.

“For employers, the data gives



them a solid benchmark against which to highlight skills needs, and to analyse their own performance and influence future plans.”

The project gathers specific company data including demographics, skills gaps, skills shortages and upskilling requirements, apprenticeship uptakes, job vacancies – including the hard to fill positions – and investment in further work related education and training.

Each company taking part gets its own bespoke report.

Leighton Davies, Head of HR and Training, Murco Milford Haven Refinery, said, “I would like to extend my thanks to those involved in the development of the survey questionnaire relating to skills. I found the Oracle software user friendly and easy to complete. The questions were well structured and concise and hopefully the results of the survey will provide sufficient substance for effective lobbying in support of our industry.”

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

## Spotlight on Advanced Manufacturing

Advanced Manufacturing is a portfolio of technologies that are highly reliant on underpinning science to maximise process efficiency and produce materials with superior properties.

Many of the markets are in traditional industries, but focused in the areas where high performance is a premium. This added-value is important to the UK economy bringing a global competitive edge and a positive contribution to the low carbon economy.

Cogent has a skills role to play in two areas; composites and industrial biotechnology.

Composites are multi-component materials characterised by high strength, low density and low maintenance. Applications are in wind turbine, automotive, aerospace, and other specialised areas, and frequently use polymers as the shape determining matrix, within which high strength fibres are supported.

As a low technology, labour intensive, process, composite manufacture has been in use for many years. However, increasing demand for material performance is raising both the technology level and the skills necessary to support it.

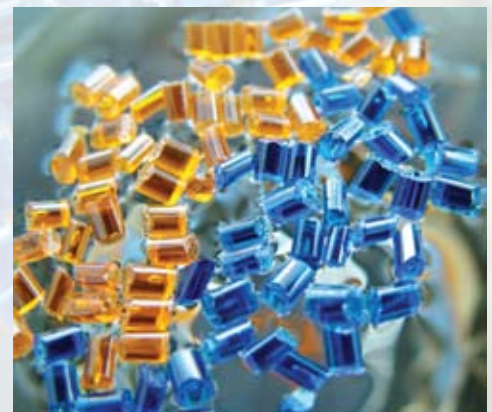
This has led to a dearth of reliable data to inform skills planning. In response, Cogent, Semta and industry bodies organised a Composites Strategic Skills Planning Day, drawing in employers and other stakeholders to map out the future skills requirements.

The second strand is industrial biotechnology – a

niche but expanding area, historically associated with pharmaceutical production. More recently, the technology has shown increasing application in the manufacture of chemicals (for example, S-Chloropropionic Acid (Avecia) and Acrylic Acid (Ciba/BASF)), notably substituting oil and energy intensive processes.

On-going expansion is generating a shift to higher level skills to drive development.

Steve Bennett, Cogent Research Manager said: “by recognising these new skills challenges we’ll help provide continuity between our existing industries and the emerging technologies of the new century.”



# Getting a qualifications insight



**Cogent is running a Qualifications Insight Survey for employers and providers to give them the opportunity to shape the development of standards and qualifications.**

Dawn Hillier, Cogent's Standards and Qualifications Manager said: "The qualifications developed by Cogent cover the essential areas required by the science-using industries.

"It's important to undertake reviews that incorporate employer feedback to ensure that subject, content and delivery reflect the

business environment."

This vital piece of research is aimed at employers and training providers within the Cogent industries. It is gathering feedback on the key qualifications, apprenticeships and standards which Cogent is responsible for developing and maintaining.

Cogent will use the employer and provider feedback to make changes and to redevelop qualifications, apprenticeships and standards and where appropriate develop new ones.

Cogent will also use the information to influence Government,

funding bodies, awarding bodies, training providers, National Skills Academies and other stakeholders to ensure the right skills provision exists in the right locations.

Adds Dawn, "our range of qualifications have been designed to meet staff development needs and their flexibility helps to release peoples' potential – whether you want to bring a graduate up-to-speed, nurture the talent of your workforce or build management and leadership skills."

The result of the survey will be published later this year.

## Resource efficiency qualifications in the pipeline

**Embracing the sustainability agenda is critical to the Cogent science-using Sector. Both in order to anticipate future regulation and to ensure longer term business efficiencies.**

Working with employers and Edexcel, Cogent has developed a suite of small qualifications covering topics such as energy efficiency and waste efficiency.

These qualifications are the first nationally accredited qualifications of their type, with the potential to generate demand on a par with health and safety or business improvement.

### About the qualifications

The new qualifications are intended to support training, either on or off the job, for people with responsibility for identifying and implementing efficiency measures for energy, water, waste, and transport.

All of the qualifications are designed to be small, flexible and can be delivered in a variety of ways, including:

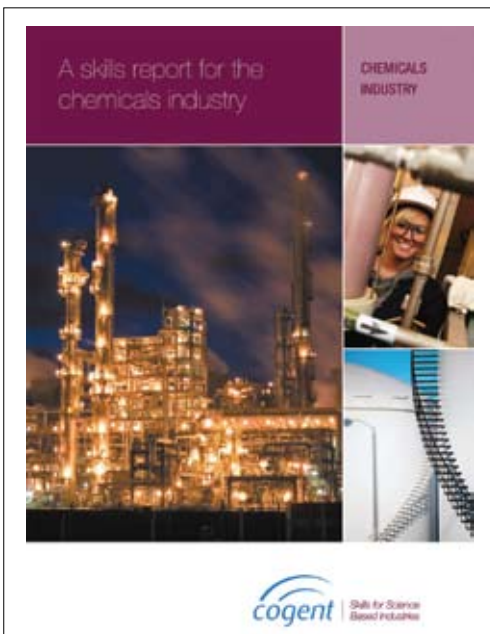
- week-long, full time course
- e-learning
- on site observation and questioning

Dawn Hillier, Cogent Standards and Qualifications Manager said: "Cogent is committed to ensuring these qualifications are delivered flexibly, through on the job assessment, as part of a training package or through on-line or distance learning."

She added: "we're also looking at opportunities for integrating them with the Business Improvement Techniques (BIT) qualifications, in order to produce an all-encompassing approach to efficiency and process improvement."

For further information contact [dawn.hillier@kogent-ssc.com](mailto:dawn.hillier@kogent-ssc.com)

## New qualifications prospectus for industry



**Cogent has developed a suite of new Standards and Qualifications prospectuses designed to be a helpful guide to what's available to employers to support their training and development.**

Cogent and the National Skills Academies continue to work 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.

Industry shapes the design of qualifications and standards developed by Cogent – through research, consultation and through Industry Advisory Councils.

The National Skills Academies are in place to ensure high quality provision around the country – designed to suit every type and size of employer.

To order a copy or to find out more about any of the standards and qualifications we offer contact 01325 740 900 and one of our Skills Managers will be happy to arrange a no obligation visit to find out more about your organisation's skills needs.

An online Prospectus is also coming soon – this will be the definitive place to go for an up-to-date industry-specific qualifications listing: <http://www.kogent-prospectus.com/>

# NOS to build new qualifications

Cogent manages a range of projects around National Occupational Standards (NOS) –these set out the UK-wide standards of performance that people are expected to achieve in their work, and the knowledge and skills they need to perform effectively. NOS are also the building blocks of vocational qualifications.

Helen Murray, Cogent NOS Manager said: “as custodians of the NOS this work is essential to maintain the currency of industry relevant qualifications.

“Today, NOS are viewed by managers as an indispensable tool for managing a highly competent workforce. We use them to build Cogent’s Gold Standard framework for job roles which supports individual and organisational development. The Gold Standard provides benchmarks of good practice across the UK process industries.”

A raft of NOS/qualification work is nearing completion including:

- new sign-making qualifications (which will be a mandatory requirement for employers in the highways sector)
- water treatment qualifications
- new polymers/composites

qualifications with improved technical content

- a range of new qualifications in downstream.
- new NOS/qualifications for the Transportation of Petrochemicals and of Radioactive Material
- new NOS/qualifications for Ionisation Radiation Measurement

Adds Helen, “we have an excellent range of current qualifications available for the Sector and we are continuing to see increasing uptake in line with our strategy of supporting the development of a highly skilled workforce.”

Cogent regularly undertakes projects to develop new National Occupational Standards and review existing ones to ensure they are up-to-date and fully reflect the job roles within the sector.

Consultation with employers across the Cogent industries is a key part of this process, and we often seek people to get involved – whether that is through joining a NOS working group relevant to your area of work, or providing feedback on draft units.

If you would like to find out more contact [helen.murray@kogent-ssc.com](mailto:helen.murray@kogent-ssc.com)  
<http://www.ukstandards.org.uk/>

## Provider days set the scene



**Training providers are at the centre of SSC activities and engagement, and Cogent is committed to ensuring they can contribute and comment on its activities and is keen to further understanding of its work with providers in the nations.**

To this end, once again, it held Annual Training Providers days in England, Scotland and Northern Ireland.

The days included:

- A question and answer session on Cogent’s remit
- The latest qualifications available for use by employers
- Training Standards – what are they?
- Gold Standard qualifications
- New Apprenticeships – a worked example
- 14-19 update
- The latest on Cogent’s current NOS projects

- An LMI workshop
- Updates on the Skills Academies for Nuclear and the Process Industries

Ian Lockhart, Cogent’s Apprenticeship Manager said. “private and public sector providers of all sizes are the crucial delivery arm for qualifications and apprenticeships.

“Providers are increasingly joining the relevant National Skills Academy quality assured network and can use the skills academy logo as a mark of quality and to give employers confidence in the quality and scope of their services.”

Adds Ian, “staying close to Cogent and the Academies brings business development opportunities, including the chance to shape both the training and development frameworks and contributing to the development of employer-responsive products and services.”

## QCF Submitting Body

Having successfully gone through the application process Cogent is now a “submitting body” for the Qualifications and Curriculum Framework (QCF). This enables us 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.





The National Skills Academies for Nuclear and Process Industries are giving employers a unique opportunity to shape training as well delivering sector-specific products. Each Skills Academy has developed a bespoke model that reflects the needs of the employers in the Sector. Underpinning all of this are linked networks of Quality Assured Providers which provide training and qualifications based on Cogent standards.

## Match-making service delivers on skills solutions

Since the system's launch in November 2009, the National Skills Academy's business referral service has identified over £3.4m-worth of employer training needs.

The referral process is proactively managed by the Academy, whereby specific employer training needs are identified by the Academy's Regional Manager team, as part of their work in providing hands-on practical support to employers.

The core details of the employer's requirement are then forwarded to the network of accredited providers and those providers identified by the Academy as having the potential to deliver quality training to the Sector.

Providers then respond and the Academy acts as an honest broker, helping the employer select the solution that best meets their needs. Alternatively employers can access the service directly via an online referral form.

Phil Jones, the Academy's CEO, said: "We are delighted that this recently launched matchmaking service is working so well for both employers and providers.

It means employers can be sure they are getting the best and most cost-effective solution, with accredited providers being put directly in touch with them to meet those needs.

"Our accredited provider network operates to the very highest standards, undergoing rigorous quality checks and continual monitoring. Employers have the reassurance that the Academy brand is a kitemark of quality."

Roy Beddow, Director of Consulting Principles, one of the Academy's accredited providers, said: "The provider referral system is a key benefit of being part of the Academy network. Academy accreditation provides reassurance to employers that their training needs are being met by an organisation that has achieved independently audited standards of operation."

Providers deliver both employer-led Academy designed training, as well as services from their own existing portfolio.

For more information please contact Sandra Ozturk on 01325 740 900. Email: [s.ozturk@process.nscademy.co.uk](mailto:s.ozturk@process.nscademy.co.uk)

£3.4  
m  
worth of  
employer  
training



For a no obligation meeting about the Academy's Skills Assurance process call 0845 607 0140



# Skills Academy rallies support for apprentices



Phil Jones, CEO of the Skills Academy talks about leaving a legacy

The Tees Valley Apprenticeship Programme (TVAP), launched at the end of July by the National Skills Academy Process Industries at the Wilton Centre in Redcar, marks the start of a two year programme to get apprentices in the Tees Valley back on track. The fund, specifically for engineering apprentices at risk of redundancy will enable employers to accommodate apprentices in full time employment allowing them to continue their training and development.

TVAP is aimed at employers of all sizes, however where smaller companies have a limited resource they can form a group, allowing the cost and management of the apprentice to be evenly divided. The Skills Academy will work with employers to help establish this co-operative approach to benefit both the employer and the apprentice.

Funding will also allow apprentices to progress from Level 2 to Level 3, where the benefits to both the employer and the apprentice are significantly increased. Phil Jones, CEO the Skills Academy said, "the Tees Valley needs learners to make the progression from Level 2 to Level 3, this will help to widen the skills base that we talk about and will increase the number of learners wanting to progress further into Higher Level provision."

George Ritchie, Senior Vice President of Sembcorp Utilities and Chair of TVAP Board added, "Employers in the Tees Valley have a real problem on their hands, as a lack of investment in recruitment over the past fifteen years is starting to show. This is one of the reasons why I am so supportive of TVAP, as it will enable employers operating in the region to introduce new talent into the business."



ONE OF THE REASONS WHY I AM SO SUPPORTIVE OF TVAP, IS IT WILL ENABLE EMPLOYERS OPERATING IN THE REGION TO INTRODUCE NEW TALENT INTO THE BUSINESS.

George Ritchie, Senior Vice President of Sembcorp Utilities and Chair of TVAP Board



Left to right: Ian Swales, Redcar MP, apprentice Keiron McKinley, Keith Hunter, TTE and Tom Blenkinsop, Middlesbrough South East and Cleveland MP

## Skills Assurance launched

The NSA Process Industries has launched a comprehensive system to assess workforce capability against the independently verified industry Gold Standard.

### Skills Assurance:

- benchmarks your workforce skills to the industry Gold Standard
- identifies skills gaps and opportunities for performance improvement
- provides employers with the confidence that training is fit-for-purpose, via the Skills Academy's accredited provider network

- ensures training of limited value or quality is avoided
- provides a clear demonstration of organisational competence

The Regulatory Authorities increasingly require employers to provide a clear demonstration of organisational competence, particularly in the area of process safety management. Skills Assurance recognises that any organisational assessment of competence, needs to ensure the all-important measurement and management of individual competence.

For a no obligation meeting about the Academy's Skills Assurance process call 0845 607 0140

### Business benefits of Skills Assurance:

- aligns training needs with business goals
- ensures participants spend time on appropriate programmes



# Transforming proof of skills for the nuclear industry

## Nuclear Skills Passport is global first

The eagerly awaited Nuclear Skills Passport is fast becoming a reality and is in its final pilot phase, ready for implementation by industry this autumn.

The Nuclear Skills Passport will bring about a step change for the nuclear sector by introducing an effective vehicle for the introduction of industry agreed, and cross-site recognition of both internal and external skills development and training.

There is a high level of industry-wide support for this revolutionary initiative as it strives to change the way the nuclear sector addresses skills needs and challenges across the industry. The Nuclear Skills Passport is a key vehicle for raising the bar in terms of Quality Assurance and as a vehicle for achieving a high skills standard across the industry.

The incorporation of 'National Nuclear Industry Training Standards' is of particular importance to the

industry and nuclear employers have worked with Cogent and the National Skills Academy for Nuclear to agree the standards which will be recognised across the sector via the Nuclear Skills Passport system.

The Nuclear Skills Passport is a web-based system which offers all nuclear organisations instant secure web access to information on their nuclear skills base, offering a detailed overview of the training completed by their workforce.

Site Licence Companies (SLCs) and other large companies will, with permission of the companies involved, be able to view the training completed by their supply chain companies providing assurance of the level and quality of skills and training across the organisation.

For contractors, the Skills Passport provides a simple, highly secure method of aiding in the demonstration of SQEP (suitably qualified and experienced

personnel), vital when bidding for contracts.

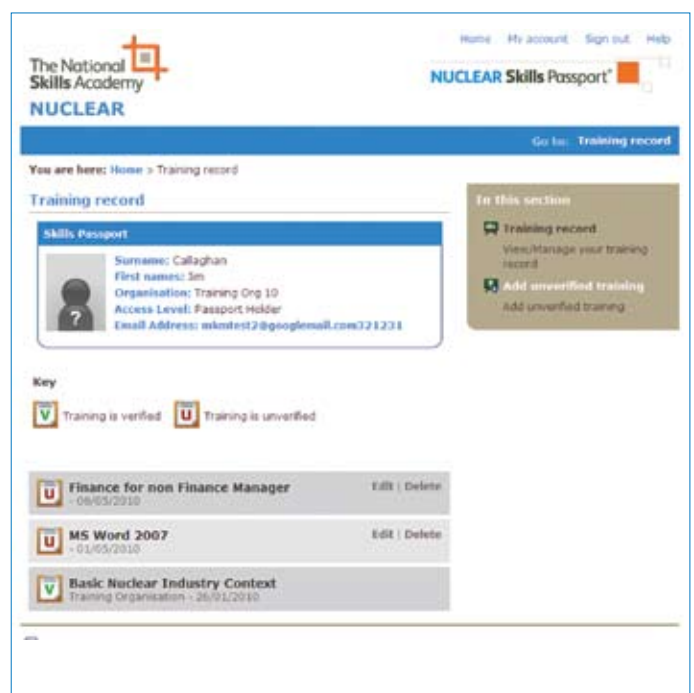
The system will enable organisations to effectively assess and plan their training, skills and people requirements. At an individual level, career development will be supported by enabling people to complete their own skills analysis against Cogent SSE defined nuclear job roles (job contexts). Once people have identified their skills gaps, they will be able to locate High Quality Providers via the system.

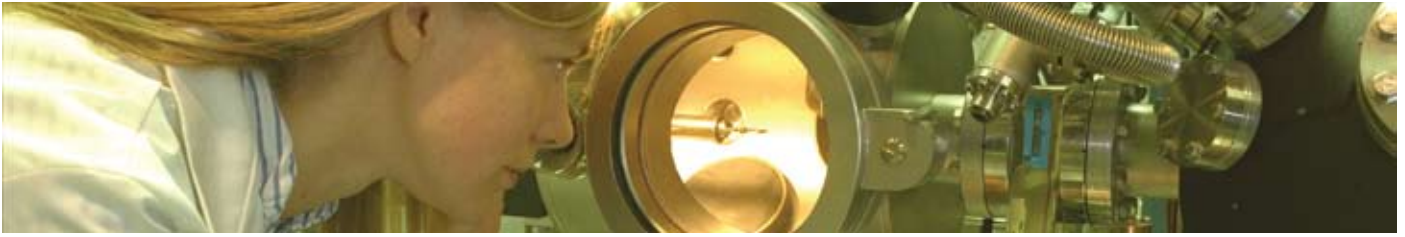
### Highly Desirable

There is strong industry support for the Nuclear Skills Passport, which has led to member organisations of the Skills Academy committing to including the Nuclear Skills Passport as 'highly desirable' in tenders. All companies who are looking to contract with the nuclear sector are urged to ensure that they have Nuclear Skills Passports in place for their employees.

### Benefits:

- Harmonisation and standardisation of training across the industry in the UK
- Support the flexibility and mobility of the workforce, as training standards are recognised at different sites
- Reduces mobilisation times for supply chain organisations
- Demonstrating excellence in skills across the nuclear industry
- Recognition and recording in one place of standards required by other bodies such as Construction Skills and ECITB
- The system will provide significant cost savings to the industry by eliminating the costs of repeat/duplicate training, reduced costs of operating training departments, reduced costs of contracts for the SLC and reducing the cost of data capture





## Standards set the triple entry bar

The Nuclear Skills Passport will not only implement UK wide training standards, the system will also work to raise the skills level for the nuclear sector. It will introduce an 'entry bar' for new individuals requiring unescorted access to a nuclear site. This is to be implemented across nuclear sites as a minimum requirement.

This entrance bar will be known as the Triple Entry Bar and consists of 3 employer led and endorsed Industry Training Standards. The aim of these standards is to have, maintain and grow a 'UK nuclear industry culture' for safe and continued operations.

The 'Triple Entry Bar' will be focused at a fundamental level

to cover a WHAT, WHY and HOW introduction to the nuclear sector.

### 1. Basic Common Induction Standard (BCIS)

To provide individuals with WHAT is required for 'compliance' for entry to a nuclear site.

### 2. Basic Nuclear Industry Context (BNIC)

Provides individuals with an awareness of the nuclear industry and WHY they need to comply.

### 3. Basic Nuclear Industry Behaviours (BNIB)

Provides individuals with an awareness of HOW they need to behave to promote and encourage a 'nuclear safety culture'.

## What's happening now?

The final Nuclear Skills Passport pilot phase is underway with a particular focus on testing the integration of the Nuclear Skills Passport system with existing HR systems and processes.

The pilot is being undertaken by 8 employer members of the National Skills Academy for Nuclear: Carillion, Amec, Babcock Nuclear, NDA, Lab Impex, Magnox North, Magnox South and EDF Energy.

The pilot is expected to be

complete by the end of September. Through performance measurement from the pilot, the Skills Academy will be able to put in place the necessary measures to ensure a smooth transition of the Nuclear Skills Passport to the rest of the industry.

Organisations who are members of the Skills Academy, will gain access and use of the Nuclear Skills Passport as part of their membership, enabling them to demonstrate their excellence in skills for the nuclear industry.



For further information the Nuclear Skills Passport

W: [nuclearskillspassport.co.uk](http://nuclearskillspassport.co.uk)

E: [enquiries@nuclearskillspassport.com](mailto:enquiries@nuclearskillspassport.com)

For further information on the National Skills Academy for Nuclear:

W: [nuclear.nsacademy.co.uk](http://nuclear.nsacademy.co.uk)

E: [enquiries@nuclear.nsacademy.co.uk](mailto:enquiries@nuclear.nsacademy.co.uk)

# Going for the Gold Standard

**Cogent continues to promote and roll out its industry-endorsed Gold Standard Competency Framework for individuals.**

The Gold Standard is delivered through a suite of industry-designed, generic job-roles. These range from Level 2 job roles through to professional positions.

Each standard describes the competency requirements of the role and the corresponding qualifications and training standards, across four areas:

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

Cogent Strategy Development Director, John Holton said: "more and more employers are committing to the Gold Standard journey ensuring that their investment in skills is sound and is delivering these critical skills."

## Skills Assurance

The National Skills Academy Process Industries has developed a comprehensive system – Skills Assurance – to assess workforce capability against the independently verified industry Gold Standard.

### Skills Assurance:

- benchmarks your workforce skills to the industry Gold Standard
- identifies skills gaps and opportunities for performance improvement
- provides confidence that training is fit-for-purpose, via the Skills Academy's Accredited Provider Network.

Allan Laing, Chairman of Pentagon Chemicals, which is going through the Gold Standard journey said, "training and competence is a key element of a sustainable business and Pentagon is committed to providing employees with



the opportunity to reach their full potential.

"We are working with the National Skills Academy to review all aspects of operation to identify areas that Business Improvement Teams could make the business even more effective and also increase competence to achieve this new Gold Standard, which aligns with our own competence framework.

"Not only does the Gold Standard provide employers with a solution to identify skills gaps, it provides accreditation of existing skills, whilst also providing employees with clear opportunities to improve skills".

For a full list of job roles go to [www.cogent-ssc.com/Gold\\_Standard](http://www.cogent-ssc.com/Gold_Standard)

For more on Skills Assurance call 0845 607 0140

# Skills profiling through new web tool

**Skills Match, developed by Cogent is a free web-based resource that allows individuals and process and nuclear employers to generate a detailed skills profile, to identify skills gaps as well as training to close those gaps.**

Skills Match can be used by:

- Employers seeking a framework for Continuing Professional Development (CPD)
- Individuals planning to gain the skills needed for their next job move
- Career advisors helping people to

find out about the skills needed for working in science-based industries

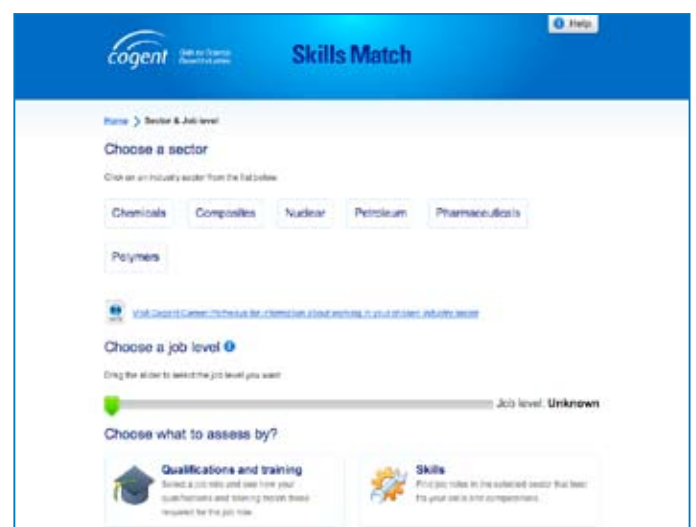
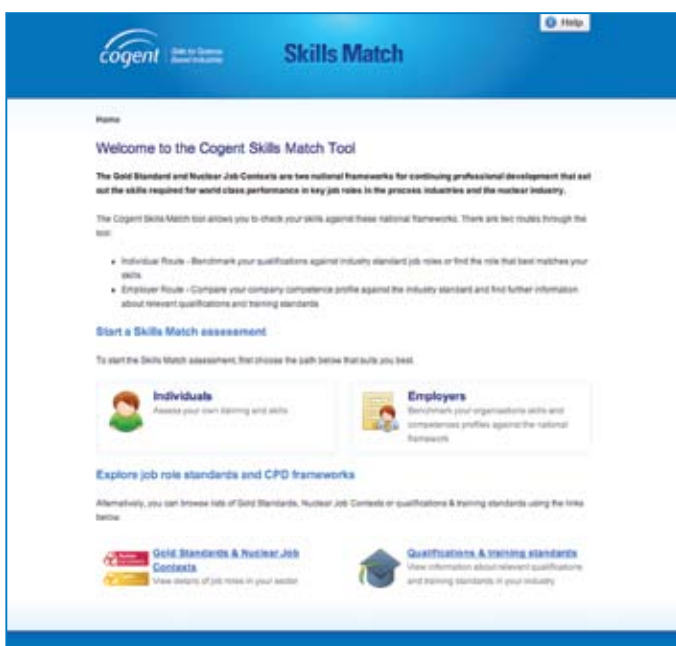
- Jobcentre Plus advisors helping people to identify their transferable skills

- Technical
- Business improvement
- Compliance
- Functional and behavioural

Users can check their skills against Cogent's two national competency frameworks for CPD; the Gold Standard and Nuclear Job Contexts. These set out the skills required for world class performance in key job roles in the science-based industries. Skills Match enables the users to benchmark qualifications and training in four key areas of competence:

Skills Match offers a rich user experience. It contains comprehensive information relating to qualifications and training, links to the National Skills Academies for Process and Nuclear and to Cogent's Career Pathways website, which provides detailed information on careers in the science-using Sector.

Visit Skills Match today to see the benefits for yourself: [www.cogent-skillsmatch.com](http://www.cogent-skillsmatch.com)



# Nuclear island for “scaled down” New Build

In partnership with Imperial College London, Cogent has received funding from the Royal Academy of Engineering to scope employer engagement for a Nuclear Island – a hands on New Build experience for engineering students. Other key partners are the National Skills Academy Nuclear, Construction Skills and ECITB.

The vision is to create a sustainable partnership between employers and Higher Education Institutes to tackle the critical future workforce needs of nuclear New Build.

The prospect of replacing of the current fleet of nuclear power stations represents a multibillion pound private sector investment programme. Cogent’s Renaissance reports *Power People* and *Next Generation* confirmed that the

nuclear industry need to ensure enough people, with the right skills, are available to take up the posts that the new build renaissance offers. With each new build station being the equivalent of an olympics project, the industry will require up to 500 new graduate recruits every year if the current level of nuclear power generation is to be maintained to 2025 and beyond. Overall, up to 30,000 new jobs could be created to meet the needs of New Build.

### The Nuclear Island concept

The Nuclear Island would be a hands-on New Build experience for students in engineering. The Island aims to become an integral part of a number of UK undergraduate and FE courses, exposing students from civil and nuclear engineering to the New Build sector. The students would design and construct a

scaled down Nuclear Power Plant. They would be assessed in relation to real-life skills such as radiation protection, site licensing, budgetary control and project management.

Clive Smith, Cogent Nuclear Industry Lead said, “this initiative will give students from a wide range of disciplines a real feel for the challenges, constraints and behavioural requirements associated with new nuclear build.”

### Quotes:

“My organisation, Westinghouse / Springfields Fuels has about 1300 full time employees on site, with a further 60 Agency Supplied Workers (ASWs) and contractors. With the very likely prospect of new nuclear reactor build in the UK, it is absolutely imperative that steps are taken to increase the supply of suitable potential employees in a very wide range of work areas, particularly engineering.”

**Neil Farley**  
Head of Skills Development and Human Performance, Springfields Fuels Ltd

“AREVA UK Ltd supports Cogent and Imperial College in their bid to the Royal Academy of Engineering to build a nuclear island model...it is important that engineering skills are nurtured and developed at all levels in order to feed the needs of the industry.”

**Jean-Jacques Gautrot**  
Chairman & CEO,  
AREVA UK

“We at Manchester have been working closely with the industry to develop nuclear skills and educational programmes for undergraduates, graduates, researchers and young professionals. We are therefore delighted to hear about this initiative and we would certainly seek to be involved with the project.”

**Professor J Billowes MA DPhil FInstP**  
Director of Education & Training  
Dalton Nuclear Institute



## CALL FOR EMPLOYERS TO SHAPE WORKFORCE DEVELOPMENT

Employers are being urged to shape new Working Higher Foundation Degree qualifications for their sector by working with six nominated industry champions. The initiative is a brand new approach to providing flexible work-based routes for workforce development.

This £2.9 million initiative is funded by the Higher Education Funding Council and is a collaborative project between Cogent, the Higher Education Academy UK Physical Sciences Centre, the University of Hull, and Semta.

Five new Foundation Degrees are being developed, one each for:

- Nuclear
- Chemicals
- Refinery and petrochemicals
- Polymers
- Bioscience and pharmaceuticals

The Foundation Degrees will include the accreditation of in-house training and the capture of existing valued external training and education.

“We need more employers to work with us so that the new Foundation Degrees are a true representation of what the industry needs,” said Gareth

James, one of the six new industry champions.

His own experience spans a 30-year career in senior operations roles at BP. His expertise will be brought to bear in working alongside employers in the refining and petrochemicals sector.

“The Foundation Degrees offer a work-based career path, making them ideal for developing people into roles on the ‘earn and learn’ principle, and for upskilling and reskilling more experienced staff as part of the a business’s workforce development strategy.”

Gareth is one of six industry champions appointed by the consortium.

Each champion is working alongside a partner university to develop the course content and delivery mechanism for their sector.

The universities chosen to deliver Working Higher, are: University of Kent (Bioscience), Manchester Metropolitan University (Chemicals), University of Central Lancashire (Nuclear), London

Metropolitan University (Polymers), and University of Hull (Refining and Petrochemical Engineering.)

Employers who want to get involved can contact Gareth on [williamgarethjames@supanet.com](mailto:williamgarethjames@supanet.com)



For more information, please contact Caroline Sudworth HE Engagement Manager [caroline.sudworth@cogent-ssc.com](mailto:caroline.sudworth@cogent-ssc.com)

# Energy apprentice pilot generates national interest

A unique pilot course at Lowestoft College to attract young people into the energy industry could be rolled out around the country.

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

The one-year Energy Skills Foundation Programme provides hands-on experience in relevant skills. 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.

Speaking at the graduation ceremony of the first group of students, John Sewell, Operations Manager of Perenco UK, who championed the course, said, "I always felt uncomfortable about having to send people to Aberdeen for offshore training when there was such a buoyant industry here in the south. This was the opportunity we needed to set up something locally.

"It will give students a year



Cogent's James Murdock celebrates success



Students spend a day exploring the Seajacks Kraken liftboat, a self-propelled jack-up vessel which is able to carry out a number of niche operations for the North Sea offshore industry.

to study the industry, develop workshop skills, visit places like Bacton and Sizewell, and get a feel for what it is they would like to do in the industry."

James Murdock, Director of Education and Qualifications at Cogent said, "It's been a very successful programme and there's interest in it from other energy areas of the country, like the west coast of Cumbria."

### Student success

The students were presented with certificates, trophies and tool boxes at a ceremony in Hopton. They were Bradleigh Baxter, Jordan Boggis, Dalton Evans-Webster, Sebastian Grimmer, Sean Largey, Robert Turner, Callum Leech, Leigh Yorke, Adam Crinnion, Marcus Grimmer and Harvey Wright.

Callum Leech was also named student of the year, Leigh Yorke was highly commended and Adam Crinnion produced the best project of the year.



Energy Skills Foundation Programme award winners (left to right) Adam Crinnion (best project), Callum Leech (student of the year) and Leigh Yorke (highly commended).

Adam, 17, said he had entered the programme with the intention of pursuing a career in the oil and gas industry. "That's still what I want to do but the course has helped me to narrow this down to the instrumentation or mechanical side," he said.

"It helped us with things like team building, communication and practical skills, and it enabled us to see the bigger picture in the energy industry."

Celia Anderson, Executive Director of Skills for Energy, said the pilot foundation programme had been a real success and advertising had already started for next year's course at Lowestoft College. "We face a potentially devastating shortage of skills in the energy industry in the years to come and we have to begin addressing the problem with initiatives like this," she said.

The pilot scheme was supported by the ECITB, the National Skills Academy Process Industries and Cogent.

### Companies who backed it included

3Sun, Amec, British Energy – EDF, Pruce Newman Pipework, ODE, Perenco, Petrofac, Scottish and Southern Energy, Seajacks, Shell, SMS and Southern Electric.



IT WILL GIVE STUDENTS A YEAR TO STUDY THE INDUSTRY, DEVELOP WORKSHOP SKILLS, VISIT PLACES LIKE BACTON AND SIZEWELL, AND GET A FEEL FOR WHAT IT IS THEY WOULD LIKE TO DO IN THE INDUSTRY.

John Sewell, Operations Manager of Perenco UK

### Framework conversion to QCF

From September 2010 Cogent Apprenticeship/Advanced Apprenticeship frameworks will be converted over to the Qualifications and Curriculum Framework (QCF) and become "Specification of Apprenticeship Standards England/Wales" compliant. This reflects new Government legislation to ensure clarity to those offering apprenticeships.

For more information please contact [ian.lockhart@kogent-ssc.com](mailto:ian.lockhart@kogent-ssc.com)

# Skills roadmap for composites

The UK composites market is now worth more than £1bn annually and is expected to grow significantly to meet a 50 per cent increase in global demand over the next 5 years. Applications range from lightweight aircraft and car components, to wind turbines and sustainable construction materials using natural fibres.

The important place of skills in taking advantage of this opportunity was recognised in the UK Composites Strategy, published in November 2009.

Cogent, working with employers, recognised that maximising the opportunities provided by an

expanding composites market, requires a skills pool well matched to industry needs.

In response it brought together employers and partners to get an initial picture of future skills demand and develop a "Skills Roadmap" for composites.

## Skills Academy

This event was also an important part of the business planning process to extend the remit of the National Skills Academy Process Industries to embrace composites, which will translate the demand requirements into high quality composites training provision.

Cogent and Semta, the two Sector

Skills Councils with strong interests in composites, are now working closely to understand the skills and qualifications required by industry.

Together they have established the Composites Skills Strategy Group – an employer-led body that aims to develop a UK wide action plan for composites skills.

At the event experts set the scene for the development of scenarios in the areas of:

- Modelling and Design
- Material and Testing
- Manufacturing

The workshop groups, which followed, helped to set the parameters for generating high quality Labour

Market Intelligence, and identified particular areas for attention including, among many others:

- the importance of core engineering skills
- a distinct role for repair, recycling and maintenance skills
- a increasing demand for certification skills

In the coming months, surveys of employers will generate new quantitative data to describe the industries' skills needs and provide a platform for the work of the National Skills Academy.

[steve.bennett@cogent-ssc.com](mailto:steve.bennett@cogent-ssc.com)



Composites application, wind turbine wings

## CALL FOR ENTRIES:

# "Outstanding Leadership in Skills" Nuclear Award

Cogent and the National Skills Academy for Nuclear are delighted to announce their third collaborative UK Nuclear Skills Awards Dinner, which will be held at the Palace Hotel, Manchester on the 10th March 2011.

At the Awards Dinner Cogent will present its Award for "Outstanding Leadership in Skills" and is now calling for entries. This award recognises the efforts of an individual who has demonstrated outstanding commitment to ensure the nuclear sector has the skills it needs to continue to be a world-class industry.

The judges are looking for someone who's led a skills project beyond their job description; who's



driven forward innovation; who's contributed to the wider community and who's led a nationally driven initiative.

Last year the accolade was awarded to Ian Williams, Fleet Apprentice Training Manager at EDF

Energy. Under Ian's stewardship, in just over 2 years, the residential apprenticeship programme has increased from a few apprentices to over 106, and it's projected to grow by over 50 per cent this year.

All nominations for next year's award will be considered by a Cogent panel and the winner will be officially announced at the high profile dinner, where they'll be presented with their award in front of several hundred nuclear employers and stakeholders.

The dinner will also see a variety of other high profile Awards including regional and national apprentices, Scottish HND and most promising Foundation Degree student.

Closing date for Outstanding



Leadership entries is 22nd October 2010.

The 2011 award is being sponsored by EDF Energy.

For further information regarding the award or the dinner, go to [www.cogent-ssc.com/Nuclear Dinner](http://www.cogent-ssc.com/Nuclear_Dinner)

# £650 grant for female learners



The Cogent SSC Women and Work Programme is an initiative for the science-using industries in England to support the skills development of women, particularly into non-traditional technical roles.

Employers are encouraged to review the skills needs of their business and where there's a skills gap or a career progression opportunity identified among female staff, individuals may be eligible for a £650 grant. This supports any skills intervention that will

add value to the company and promote the development of women in the workforce.

The only stipulation is that a company must contribute 50% or more to the total costs of the project (both to the provision and via learner or mentor time) of which 15% must be in cash to a provider of the course.

If you want to find out more about the Women and Work programme contact Julia Bennett on: [julia.bennett@kogent-ssc.com](mailto:julia.bennett@kogent-ssc.com)

# WAG project

Cogent is part of a £7m pilot programme which is aimed at providing the Welsh workforce with the specific skills and qualifications that businesses need.

The key aim of the Sector Priorities Fund Pilot Programme (SPFP), which has received £2.8m from the European Social Fund, is to ensure post-16 training is more responsive to the needs of employers.

Cogent is implementing its renowned Gold Standard with pilot groups of employers in Wales. This will include an assessment of employers' needs to bring their workforce's skills up to the Standards, liaison with relevant providers and development of materials for delivery.

Andrew Evans, Cogent's Wales Manager said, "our aim is to improve the productivity and relevant skills of the Cogent workforce in Wales up to world class levels. A long term aim is to ensure that Wales has the value-adding



Safon Aur Cogent



Llywodraeth Cynulliad Cymru  
Welsh Assembly Government

technical skills available to continue to attract inward investment to the region, and to retain current employers and employment."

The pilot will target two specific groups and geographical regions. This includes companies in the pharmaceutical cluster in Newport, Gwent, and the petroleum industry around Milford Haven, Pembrokeshire.

Adds Andrew, "the funding will allow us to both subsidise the employees taking part and also provide some financial support to help the providers develop the skills and capacity to be able to deliver the Gold Standard qualifications."

Lesley Griffiths, Deputy Minister for Science, Innovation and Skills, said "This project and the pilot programmes will allow employers to train their workforce in a more dynamic manner which is responsive to changing markets, including technological developments and global competition."

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# Upskilling in Northern Ireland

Cogent is undertaking three key projects in Northern Ireland to boost skills in the Sector.

The first is a project to research future skill needs. The project is reviewing the cross-sectoral skills needs of manufacturing companies on a sub-regional basis and is mapped to Workforce Development Forum (WDF) areas.

The six WDF bring together the supply and demand sides of the skills issue to identify local skills training needs. Each of the WDF is chaired by a prominent local business figure.



Secondly, Cogent is using its Career Pathways product to provide employees and potential entrants to the Cogent Sector in Northern Ireland with relevant, up-to-date information on the pathways available in the industries. This includes the development of real-life NI-based case studies. These will be taken out to 100, year ten groups across the nation, who will get the chance to see what a career might involve.

Finally, Cogent is managing a project that will see five individuals qualified to Level 3 being placed with companies in the Republic of Ireland, which have already demonstrated a return on investment in training. The Republic of Ireland's chemical industry includes 8 of the top 10 companies in the world.

Hugh McGurk, Cogent's Northern Ireland Manager said, "The Department of Employment and Learning in Northern Ireland is focused on the strategic skills needs of Northern Ireland industry. This is achieved by collaborating with SSCs who can deliver employer-led programmes that meet real needs."

## New Scotland Manager

Paul Coffey has joined Cogent as Scotland Manager. Paul started his career in Electrical Engineering with the Ministry of Defence (MOD). He has subsequently had a long career in skills and qualifications. He said, "I'm looking forward to working with the energetic Cogent team in supporting the vibrant Scottish process and nuclear sectors." Paul is resident in Scotland. [Paul.coffey@kogent-ssc.com](mailto:Paul.coffey@kogent-ssc.com)