

Chemicals Northwest to join forces with the Chemical Industries Association

At the time of going to press Chemicals Northwest (CNW) and the Chemical Industries Association (CIA) have signalled intent to join forces.

The two organisations have signed Heads of Terms and are continuing formal discussions which, if successful, will see CNW become part of the CIA's UK wide operation.

The move, although in response to the withdrawal of funding by the Northwest Regional Development Agency, offers an opportunity to combine national sectoral leadership and local on-the-ground delivery of practical support to chemistry-using businesses of all sizes across the Northwest.

If the deal is successfully concluded, this potential new relationship means that the

Northwest's £10.2 billion chemical sector will become an official arm of CIA, whilst retaining the CNW brand and a physical presence in the region.

Speaking after the agreement to open discussions, CNW Chairman Tony Bastock said: "This potential partnership sees the private sector stepping in where government has had to step away. Through its national sectoral lead, CIA will offer CNW members increased representational clout and continuity of local business support activities."

The CIA is committed to retaining a CNW office at the Heath in Runcorn, together with dedicated staff, backed up by CIA national resource, which will deliver local, practical advice and support as Chemicals



Dr Tony Bastock OBE, CNW Chairman

Northwest members experience currently.

There will also be a continued programme of events for CNW members which CIA has pledged to deliver for the same value to CNW companies.

CEO of Chemicals Northwest gives a talk at the European Cluster Managers Club



Chemicals Northwest CEO, Jenny Clucas, recently attended and presented at the inaugural conference of the European Cluster Managers Club at the request of the NWDA. With over 2,000 clusters across Europe, the Club aims to share best practice, provide recognition of the Cluster Manager Role and promote Continual Personal Development.

At the conference which was held on 29th

& 30th September, Jenny gave a keynote speech at the opening ceremony. The talk, centering on her views on the role of cluster managers, her experiences when she first became one, and what needs to happen for the role to be recognised as a profession, also included the opportunity to promote the North West chemical industry and the sector in general.

The European Cluster Managers Club is part of an overall cluster excellence initiative which includes the setting up of a Collaboration Platform. This will provide a platform for the mapping and profiling of cluster organisations across Europe and an opportunity to exchange information and develop collaborations for projects and funding applications for cross-cluster European-wide projects. Another session at the event discussed the financing of cluster initiatives with the predominant model in Europe having a mix of public and private

sector funding. Most private sector funding either comes from membership or the licensing of knowledge and technology.

The 2010 European Cluster Conference was held immediately after the cluster managers conference. This focused on the final recommendations of the European Cluster Policy Group: better coordination of support; streamlining of DG funding programmes; and the development of a single EU patent.

A key message from the conference was the need to develop world class clusters which are not confined to national boundaries. Improving manufacturing processes, increasing innovation to a globally competitive capacity and developing better mechanisms to combine companies and academia to exploit new technologies are all pan European issues that need resolving.

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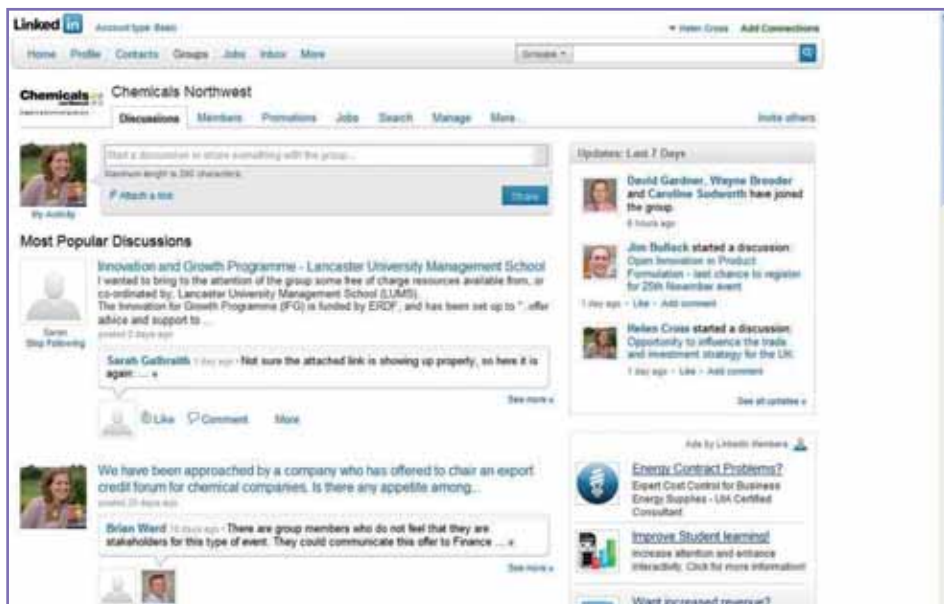
Chemicals Northwest is an industry-led organisation driving strategic and sustainable development for the 'chemistry using industries' in England's Northwest. Chemicals Northwest is a non-profit organisation funded by industry and the Northwest Regional Development Agency (NWD A).

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Linking up with the chemical industry



The Chemicals Northwest Linked in group now has over 250 participants. Members have been adding discussions about events and programmes that others can benefit from. The group of chemical industry professionals can use this platform to talk about issues with others in the sector and to find partners for specific projects. Group members can also post any job vacancies they have on the group job board and link up with other individuals

in the group. We welcome anyone who is interested in the chemicals industry here in the North West to join this group which you can find by searching in www.linkedin.com for 'Chemicals Northwest' (you will need to initially register with Linked in before you are able to join the group).

Any queries please contact
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Chemical Sector – Resource Efficiency Programme – Initial Success!

The Resource Efficiency Programme specific to the chemical sector is part of the Enworks Regional delivery programme. The programme is funded by the NWD A and the European Regional Development Fund and delivered by Chemicals Northwest.

The programme is into its 8th month and for the businesses registered and actively engaged there have been significant opportunities and savings identified including:

Over £1.3m of efficiency savings

Over 4260 tonnes of CO₂ savings

190,000 m³ of water savings

Over 3700 tonnes of waste diverted from landfill

The programme is open to all SME's in the chemical manufacturing and using sectors. The specialist support is completely free to access and is flexible in its approach to meet individual business needs. The programme covers a range of efficiency aspects including; raw materials, processing, products, energy, water and waste. It can also assist with Corporate Social Responsibility and strategy development.

If you want to know more contact;
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Chemicals Northwest helps to improve business excellence



Process Innogateway is a programme developed and piloted by Chemicals Northwest to improve the business excellence of process industry manufacturing sites across the North West region.

The Process Innogateway programme was designed to tackle a number of market failures:

- Many process sector manufacturing sites have to compete against sister sites in other countries. Although their site scales are similar to those of SMEs, foreign ownership makes them ineligible for most manufacturing support schemes.
- Reductions in personnel over many years within the sector mean that most businesses do not have dedicated staff and departments to keep up-to-date with technology developments and innovations. Engineering staff, in particular, are time lean to be able to scope out holistic improvement plans.
- Most manufacturing assistance programmes do not look at the detail of chemical plant operations (e.g. are reactions optimised), nor link companies to specialist university expertise.

The programme works through taking independent sector specialists onto sites to perform an in-depth diagnostic of the company against world-class benchmarks. The diagnostic is customised to focus in on target improvement areas for the business. Modules include Process

Optimisation, Technical Innovation, Engineering & Maintenance and New Product Development, and therefore covers all aspects from developing current plant and processes to determining the feasibility and then the implementation of new or improved equipment and chemistry. It is not just about getting sites to implement lean manufacturing practices. Following the diagnostic, companies are assisted in implementing the improvement plan, to ensure that potential benefits are realised.

Refinement and delivery of this NWDA-funded pilot project has continued to progress. Three diagnostics and feedbacks have been completed, with two further scheduled for December. The programme has already demonstrated potential benefits e.g. typical GVA improvements identified are in excess of £250,000, with many exceeding several million.

We are now working with the companies to assist with the intervention stage to ensure that potential multi-million pound improvements can go some way to being realised within the short time scale for the project.

The dissemination event for Process Innogateway is due to take place in March 2011 and will be a good opportunity for other chemical manufacturing sites in the region to learn from the companies who have gone through this pilot.

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Trade Europe
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Arvia Technology Scoops Coveted Innovation Prize



Chemicals Northwest member company, Arvia Technology, scooped first place in sustainability in a competition designed to support innovation at the 'Innovate10' event in London.

As the winner in their category, Arvia, a spin-out from the University of Manchester, was awarded £100,000 to further their development of a chemical and waste-free, low carbon approach to recycling domestic grey-water.

The 'Competition for Disruptive Solutions' which was run by the Technology Strategy Board, was open to technologies which have the potential to alter a market dramatically through ground-breaking innovation.

The aim of the competition is to stimulate ideas that could provide solutions to challenges in the market, and over 500 companies entered, by submitting two-minute long video pitches outlining their proposals.

These entrants were thoroughly assessed, with twelve finalists selected and invited to pitch their projects to an expert panel of judges in a forum at the Innovate10 event on 12th October.

Iain Gray Chief Executive of the Technology Strategy Board said: "This is the first time that we have run a competition in this way, with early stage video pitches and the final stage being decided by a live panel of judges and members of the audience and we are very pleased with the outcome. My congratulations go to all the winners who went up against significant competition to

clinch the £100,000 award. We are now looking forward to keeping track with the winning projects and watching some excellent innovation projects take shape."

Arvia Technology pitched their award winning technology for the destruction of organics in water and wastewater. The aim of their project is to investigate the disinfection properties of the process for the treatment and reuse of grey water within domestic and commercial applications.

Arvia has a patented material called Nyex® which removes organic pollutants from water. These pollutants are then destroyed using low power regeneration, leaving no waste for disposal. The treatment and regeneration process takes place on-site and is up-to 90% more cost-effective than conventional techniques.

Martin Keighley, Arvia's CEO, said: "It is a thrill and an honour to win what is a unique and fiercely contested competition. The big challenge for Arvia, as is for any business developing disruptive environmental technology, is breaking into the mainstream.

"Only through mass adoption can we make a difference on a large scale, particularly when it comes to grey-water, as we're potentially talking about billions of homes and businesses worldwide. This award and the funding that goes with it is another important step in achieving this."

Martin concludes: "The reaction to Arvia's technology has been phenomenal, with recognition, awards and inroads made across a broad range of markets including: groundwater remediation, nuclear decommissioning, swimming pools and drinking water treatment."

More Information on the Innovate10 awards can be found at www.innovateuk.org and about Arvia Technology at www.arviatechnology.com

Founded in 1999, Trade Europe is a technical specialist distributor, supplying a range of raw materials to the coatings, inks, construction and plastics markets. We offer a range of anticorrosive pigments, titanium dioxide, castor oil polyols, non phthalate plasticisers, fillers and metal catalysts.

From Sherwin Williams Chemicals we offer the Molywhite range of corrosion inhibitors. These provide the foundation and flexibility for the formulation of environmentally acceptable coatings. These are non toxic, molybdate-based pigmentary complexes, for use in water-borne, high solids and powder coating systems for oem, auto-refinish, industrial and marine coatings.

Vertellus performance materials are a leading innovator in natural based castor oil chemistry and citrate esters. The Polycin DTM series is a range 100% solids castor oil derived polyols for use in urethane and acrylic coating systems. These products allow for the formulation of non-yellowing coatings, voc reduction along with improved pigment wetting, flow and leveling. Vertellus offer the Citroflex range of citrate esters based on natural citric acid, derived from the fermentation of corn, finding applications in aqueous and solvent based polymer formulations. The Coscat range of metal catalysts are used in elastomer systems as acceptable environmental alternatives to mercury and tin.

From Lionian Kalk, we offer a range of calcium carbonates for the coatings and plastics industries. In particular iokal ultra fine has exceptional brightness, finess of grind; low oil absorption and can result in a reduction of up to 15% in tio2 consumption in matt and gloss paints.

We have recently started to offer TiO2 from Shanghai Jianghu Corporation predominately for decorative coatings and plastic masterbatch applications.

We also trade surplus/redundant stocks of raw materials for the coatings, adhesives, sealants, elastomer, plastics and janitorial chemicals industries.

We are also interested in purchasing any raw materials for these markets, as sending them for disposal can be very expensive and time consuming, however we are not a waste licensed company so can only purchase materials in original unopened packaging.

Tel: **0161 703 7701**
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Communication counts...

With over 20 years experience in the plastics industry and almost 10 years in adult education, **Language Connections** offers a reliable, efficient and accurate translation and interpreting service for companies with European links.

All areas of communication (material specification, importing of raw materials, sale and purchasing, business correspondence and customer negotiations) are all greatly improved if we understand what our suppliers, clients and colleagues expect from us.

Having had a fantastic, first class stay, relaxing with *Evergreens* in a *Bad Hotel*, then buying *Gift* as a souvenir of a memorable business trip in a German-speaking country, or mistaking in France *préservatifs* for *conservateurs* – do we really know what we're saying??

Language training for employees at all levels of the company helps motivate staff and improve customer relations. If we understand



photo courtesy of <http://ec.europa.eu>

not just the language itself, but the culture and mentality of our suppliers, clients and colleagues, business flourishes.

Group or individual programmes of study can be arranged, tailor made to suit specific goals, or simply one-off or ongoing regular language awareness courses.

The focus can be on basic conversation, negotiation, telephone skills, writing business reports/letters/emails, marketing and sales, manufacturing – or a combination of all aspects of effective communication, using speaking, listening, reading and writing

language methodology to suit all learners. If time is short and commitment to regular class tuition is difficult, a blend of personal tuition and online/skype support can be the solution.

Language learning is totally flexible, effective and fun!

For further information on French and German language services, please contact **Language Connections**

Tel: **01925 468592** Mob: **07876 058934**

Email: gillmbruce@btinternet.com

www.languageconnections.com

Axion Polymers scoops Sustainable Technology Award

Chemicals Northwest member, Axion Polymers, has won another accolade for its ground-breaking Axpoly® PS13 – the UK's first polymer to gain a carbon footprint. The plastics recycling specialist, part of the Manchester-based Axion Group, scooped the Sustainable Technology Award in the 2010 IChemE Awards announced in November.

The Sustainable Technology category recognises the project or process that best demonstrates innovation in waste reduction, recycling, reuse or the lengthening of product lifecycles.

In June, Axion became the UK's first polymer producer to gain a certified Carbon Footprint label for its post-consumer recycled polystyrene derived from retail packaging waste. This material goes back into products such as new coathangers, office trays and horticultural pots and trays.

Axion consultant Barry Menzies accepted the trophy on behalf of the company.

Axion Director Keith Freegard said: "We're thoroughly delighted to win this prestigious award, especially as the IChemE awards celebrate and reward chemical engineering innovation and excellence. As professional chemical engineers, to have our skills recognised by our own industry sector is a particular honour."

IChemE CEO David Brown said: "The IChemE Awards are globally recognised and attract entries from all over the world. Winning an award really does demonstrate work of the highest standard and there are plenty of winners from previous years that have used their success at the IChemE Awards as a springboard to greater things."

It was the first time Axion had entered the IChemE Awards, which are organised by the Institute of Chemical Engineers and highly regarded throughout the international chemical, process and biochemical engineering community. It fought off stiff competition, including entries from two universities and a biofuels processor, to take the award.

In May 2010, Axion Polymers won the coveted Chemicals Northwest Environmental Technology for the Chemical Industry Award with its carbon-footprinted Axpoly® PS13. This award acknowledged Axion's commitment to reducing its carbon impact on the environment and providing sustainable recycled high quality plastics products with a long-term future.



L to R: Ray Stubbs (Co-host), Neil Blackhall, Managing Director ABB Engineering Services, Barry Menzies of Axion, Mark Lawrenson (Co-host).

Axion is also a Carbon Trust Footprint Expert™ Registered Consultant and launched a range of new services to help companies calculate the environmental impact of their products or processes. Services include help with many levels of footprinting from rapid 'hotspot analysis' to comprehensive and certified footprints for external communication.

For more information, contact Axion Polymers on **0161 737 6124** or visit www.axionpolymers.com

Risk and hazard management

RAS are a local company established in 1994 and certified to Quality Management System ISO 9001:2008

With offices in Chester and consultants located around the North West, we pride ourselves on being able to respond quickly to requests from our clients and finding creative, practical and cost effective solutions to challenges our clients face.

The RAS team have qualifications and experience from a range of backgrounds including:

- Process Safety
- Environmental Science
- Electrical, Chemical & Mechanical Engineering

RAS have many years of experience working with the Chemical, Pharmaceutical and Oil & Gas sectors, and are therefore familiar with the processes, equipment and terminology used.

We specialise in the application of risk assessment to develop or improve the management of safety, environment, health and business risk.

We pride ourselves on being creative, practical and cost effective...

“Providing bespoke solutions as standard”

Our local team of specialists can provide a high level of support for any project.

We work with you to develop solutions to your challenges

Applying a structured approach to:

- Identify;
- Assess;
- Communicate; and
- Help manage Risks.

Typical Examples of where we can offer support and guidance include:

- Occupied buildings assessments
- Risk Assessment (from qualitative - full QRA)
- Consequence modelling
 - (using the latest software such as PHAST and ADMS)
- Control of Major Accident Hazards COMAH
- Preparing for COMAH 5 year reviews and inspections
- Environmental Permitting
- Environmental source-pathway-receptor assessments
- SIL & LOPA assessments
- demonstrations
- Demonstration of sustainable legal compliance

- Resource Efficiency / Energy management
- Development of Process Safety Performance Indicators (PSPIs)
- Development of safety and environmental management systems
- Development of Emergency Plans
- Development and delivery of Training
- Implementation of Process Safety Leadership Group Standards as a result of Buncefield Investigation

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RISK & HAZARD MANAGEMENT

FIBRESTAR DRUMS LIMITED

Fibrestar Drums is the market leader in the UK for manufacture and development of Fibre Drums, producing standard and customised fibre drums for various applications for its customers in the chemical, food and pharmaceutical industries. They are a leading member of SEFFI, the European Fibre Drum Association which aims to improve environmental awareness, with particular respect to Paper having a low carbon footprint and is a renewable, sustainable resource as a raw material.

Formally known as Bowater Drums and based in Disley near Stockport the company has over 60 years experience with leading chemical businesses in the North West.

The business has seen significant changes and demands within the chemical industry during that time and has adapted its traditional Fibre drum product range and led an aggressive product development programme to meet the challenges of packaging cost and performance requirements. Recent Fibrestar product developments include a 'Fibrepak' range that has a top chimb rolled from its sidewall to secure the lid, eliminating the need to separate steel for ease of recycling as well as the unique 'Ro-Con' drum range, which is a square drum, designed to optimise pallet, storage and transport costs.

The latest challenge for Fibrestar has been to embark on a programme to embrace GMP principles to align them

with much tougher procedures and practices demanded by its customers to reduce risks of potential product contamination. Fibrestar has therefore invested in upgrading its fully automatic, post manufacture, drum air washing system and clean room, which ensures that drum internal surfaces are free from any production processing contaminants.

The Fibrestar team believe that the company is well placed to ensure that it can continue to provide cost effective packaging together with high levels of service and commitment to its customers for at least another 60 years.

www.fibrestar.co.uk

Corporation Liability: Bribery Act 2010

The Bribery Act is expected to come into force in April 2011 and will replace the UK's existing anti-corruption laws and introduce a complete scheme of bribery offences.

The offences are directed at improper conduct in business and public activity and all UK corporate bodies, nationals and residents will be caught. The Act also provides for extra-territorial jurisdiction to prosecute bribery offences committed abroad where the activity has no connection with the UK.

The offence causing organisations most concern is that of failure of a commercial organisation to prevent bribery. This will be committed when a person, who performs services for or on behalf of a relevant commercial organisation, commits bribery and the bribe was intended to obtain or retain business or an advantage in the conduct of business. Commercial organisations, wherever incorporated, which carry out business, or part of a business, in the UK will also be caught by this offence.

A commercial organisation, though, will have a defence if it can show that it had adequate procedures in place to prevent its associated persons from committing bribery. There has been considerable uncertainty over what these adequate procedures are likely to be and the Secretary of State is required to issue guidance. A consultation commenced in September 2010 with the final guidance expected in early 2011.

The FTSE4Good Policy Committee considers the chemicals sector as more likely to have the highest levels of exposure to risk of bribery. Therefore, organisations need to put in place a robust internal anti-corruption regime. The consultation guidance outlines six principles for bribery prevention:

1. Risk Assessment

Your organisation should be alert to red flags, particularly where you are dealing with a country which is classed as high risk in

the Transparency International Corruption Perceptions Index. If you are dealing with a high risk country then you should conduct risk analysis to decide if the risk is too high or to enable you to have sufficient procedures in place to counter that risk.

2. Top level commitment

Establish a culture across your organisation that bribery is unacceptable.

3. Due diligence

A screening process should be in place for any third party payments received and there should be an effective due diligence procedure around the selection and appointment of third party service providers.

4. Clear, practical and accessible policies and procedures

Many organisations will be used to having some sort of inducement offered during the procurement process. This type of behaviour, though, could lead to the organisation falling foul of the Act. In particular, unlike US foreign bribery law, there is no exemption for facilitation payments.

Hospitality and facilitation payments are still grey areas under the Act but the consultation guidance recognises that reasonable and proportionate hospitality to improve an organisation's image or to establish relations is important. In general, the higher the expenditure, the greater the inference that it is intended to influence an official to grant business or a business advantage in return.

5. Effective implementation

The Act will cover employees, subsidiaries and agents, therefore, your organisation needs to ensure that your anti-corruption code of conduct is effectively communicated to all parties and training is provided where appropriate.

6. Monitoring and review

Auditing and financial controls should be in place which are sensitive to bribery and are transparent.

It is important for organisations to act now as the penalties include an unlimited fine and, if the Public Contracts Regulations 2006 are amended to include the corporate offence, a company will be automatically debarred from competing for public contracts where it has been convicted of a corruption offence.

New resource efficiency qualifications

Biodiversity, the economic climate and climate change are some of the most defining features in the world today. Ever increasingly, employers are being tasked to review the impact of their actions in environmental terms. Therefore, embracing the sustainability agenda is critically important for your sector, not only in terms of anticipating future regulation, but also because of the long term business benefits to be gained from improvements in efficiency and competitiveness.

Working with employers 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.

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

For more information on the qualifications please contact Dawn Hillier, Education and Qualifications Manager on **01925 515 211**



Hammonds

If you would like any further information please contact:

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Formulation Mission USA

2-6 May 2011

Knowledge
Transfer
Network

Chemistry Innovation



Formulation Mission USA, May 2011

Chemistry Innovation is leading a Formulation Mission to the USA from 2nd to 6th May 2011. This business-led knowledge exchange mission will connect companies to a world class knowledge base and promote broader collaboration in formulation science and technology to benefit UK plc.

Who?

Funding is available to 8 UK SMEs (50% of travel, accommodation and subsistence costs) who are world-class technology providers or innovative end-users who design, develop and manufacture globally competitive formulated products. Whilst support funding will only be available to SMEs, other formulation-related delegates e.g. large industry end-users, universities/research centres and industry networks, will play a key role in the mission and are encouraged to contact Chemistry Innovation.

What's involved?

This five day trip will bring new connections with a strong overseas knowledge base, showcase best practice in formulation science and technology and stimulate global R&D/innovation collaborations. Whilst this mission is primarily focused on science and

innovation, there will be opportunities to identify and exploit new global market opportunities and new supply chain connectivity. Prospective delegates with more of an interest in trade/commercial opportunities should still get in touch as we are working closely with partners at UK Trade and Investment (UKTI) to ensure our respective activities are aligned. Intelligent Formulation, the RSC Formulation Science and Technology Group and InForm (FP7-coordination action 233533) will be involved in the mission with a view to providing representation and identifying opportunities for their respective memberships.

Key visits

- The National Formulation Science Laboratory (NFSL), Hattiesburg, Mississippi; A \$22m, 60,000 square feet, centre of excellence which is an open-access facility for companies to exploit high throughput formulation technologies.
- The National Institute of Standards and Technology (NIST), Gaithersburg, Maryland; A federal technology agency that develops and promotes measurement, standards and technology. Their work is application

focused and they have strong links with US industry. Areas of particular relevance include complex fluids, nanotechnology and microfluidics.

- Chemspec USA 2011, Philadelphia; This focal conference will provide the platform for a "Formulation Science and Technology Day" to exchange knowledge, network and engage with the broader US formulation community, from both universities and industry.

The mission programme is still subject to change and Chemistry Innovation will be working with the delegation, as it evolves, to refine and finalise a programme that will add the most possible value.

Register Interest

All interested parties should contact Chemistry Innovation to set up an informal discussion. Contact Darren Ragheb, Projects Manager, Chemistry Innovation: E: darren.ragheb@ciktn.co.uk T: 01928 511829 M: 07515 334822

Chemistry Innovation will provide a mission report and dissemination event for those unable to join the mission.

UMIP Seeks Chemical Industry Partners for New Innovation Programme



Heather Thompson, UMIP's Head of Technology

Fundamental research carried out at academic institutions frequently produces innovations which are of value to industry. The role of University of Manchester Intellectual Property Ltd (UMIP), the IP commercialisation company for the University of Manchester, is to spot the commercial potential of these inventions, process improvements and software programmes, protect the IP and transfer them to industry via licensing or creation of spin-out companies. Whilst UMIP has a strong track record of achievement in doing just this, the usual "technology push" mode is a high risk activity. So it has come up with a new and complementary model which aims to link the inventive capacity of the University's vast research base with "market pull" in the form of innovation targets identified by companies.

The background and new model is explained by Heather Thompson, UMIP's Head of Technology; "Over the past 6 years UMIP has awarded Proof of Principle funding totalling more than £3M to 50 individual projects so that new IP and technology can be developed by

academic inventors and de-risked to a stage when evaluation and licensing can be discussed with a company. This programme has been very successful, already resulting in several new deals being struck, but we now want to extend it in a new and more powerful way by inviting companies to collaborate with us from the beginning."

"Companies willing to share areas of identified innovation priority for their business can work with UMIP to stimulate project proposals from academics matching these fields. Proposals are jointly evaluated by representatives from the company and UMIP to select projects which have market potential and an IP asset or position. The best projects compete for an investment from a collaborative funding pot for a Proof of Principle programme of work, moving the technology nearer to market. The idea is that the company and the University jointly select, fund and manage these projects and that project progress and delivery is monitored locally by UMIP who also undertake early-stage commercialisation tasks. The project is informed throughout

by the market knowledge of the industry partner, and if technically successful, the company is in preferred position to access IP rights and results for commercial development."

In 2009, UMIP announced a partnership with Johnson and Johnson, working together on just such a programme to develop technology for healthcare applications. Rich Ferrie, head of UMIP's Biomedical team comments; "The response that we had from the academics was overwhelming and we are jointly developing several exciting and innovative product ideas. Our experience is that the opportunity to engage in a different way with a University on programmes to jointly fund and develop novel technology where risk is shared is highly attractive to companies; it is a new model for open innovation".

The University of Manchester's three Schools of Chemical Engineering and Analytical Science, Chemistry, and Materials are in the top handful of UK institutions for the quality and volume of their research activity with around 80% of research activity rated as either "world-leading" or "internationally excellent" in the latest national research assessment exercise completed in 2008. This quality is augmented by outstanding facilities and many energetic and collaborative researchers who regularly work with companies. Thompson believes that the strength and depth of the research expertise in these disciplines, coupled with the expertise in early-stage commercial management of UMIP, is an ideal platform upon which to develop the collaborative proof of principle concept with companies in the chemical industry.

If you'd like to find out more information visit www.umip.com or contact Heather via email: Heather.thompson@umip.com or phone: **0161 3068814**



Specialist network set to improve process safety

The Chemical Industries Association (CIA) and the National Skills Academy Process Industries (the Academy) have formed an alliance to re-address the issue of Process Safety Management training and competence.

Process Safety is a unique blend of engineering and management skills with a clear focus on preventing catastrophic accidents – particularly toxic leaks, explosions and fires which are potential risks associated with the use of chemicals and petroleum products if these are not properly managed.

It seems that when an incident occurs there are two main route causes – technical failures of plant and equipment or a lack of training and competency. There are of course additional factors that will not help this situation; employers face pressure to increase efficiencies and work faster to meet demands. Many are working hard to combine enhanced performance with the utmost in responsible care, however this is a critical area of safety that does not stand still and continuous improvement is essential.

The Academy and CIA have joined forces to tackle the issue of process safety management at a national level, and by working together will manage the creation of a specialist Accredited Provider network to focus on the full spectrum of process safety management. The specialist Accredited Provider network will provide employers with the confidence that any training undertaken is of the highest quality, based on externally verified standards that are fit-for-purpose.

The Academy seeks expressions of interest from training providers and consultants who wish to be involved in this new area of development and to join the CIA and the Academy to establish the specialist network to:

- Build on established best practice to identify and benchmark process safety management development needs
- Work with industry and Cogent, the skills council for the chemicals industry, to establish national Training Standards for process safety management
- Ensure a modular delivery model to meet the needs of both SMEs and large national / international businesses

The Academy has been working with HFL (who are currently progressing through Academy Accreditation and will be the first specialist provider recruited into the network); to complete a process safety management benchmarking study to examine how high hazard sites are currently performing against published best practice guidelines. This will support and feed in to work on the Gold Standard Competency Framework for job roles - and help pinpoint training needs.

Once the specialist group has been established work will begin to develop a suite of training standards for process safety management. These standards will focus on all aspects of process safety management including human factors, levels of competence and the effective implementation and use of skills. The training standards will be developed by working closely with members of the



specialist network, supported by Cogent Sector Skills Council.

Ian 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 senior managers in process safety and process safety leadership. We also place great emphasis on improving the competence and skills of staff at all levels within chemical and processing industries..."

Training providers and consultants who would like to join the CIA and Academy in developing the Process Safety Management Network should contact the Academy on 01325 740 900

Industry Champions seeking feedback



Industry experts have been appointed as Champions for the Working Higher (sector specific foundation degrees) project, to help boost skills levels throughout

our sector. Representing the Cogent industries, the Champions' roles are to

strengthen the bridge between universities and industry, and help the development and roll-out of modular, work-based foundation-degrees for technicians and operators.

The aim is to help upskill the existing workforce and each industry champion is working alongside a partner university to develop the course content and delivery mechanism for their particular sector.

The industry champions are carrying out

consultations with employers and are keen to talk to people about how these work-based programmes can be tailored to the needs of your organisation.

To find out more about how your organisation could get involved and when your industry's programme will be available contact your industry champion – Robert Green at

robert.green40@ntlworld.com

NW HE STEM Programme & Workforce Development

National HE STEM Programme

The National HE STEM Programme is a three-year initiative funded by the Higher Education Funding Councils for England (HEFCE) and Wales (HEFCW) to facilitate the transfer and embedding of good practice interventions designed to enhance the quality and supply of STEM students and to facilitate effective up-skilling of those in work. The Programme focuses on the disciplines of Chemistry, Engineering, Mathematics and Physics.

Manchester Metropolitan University (MMU) is the North West regional spoke facilitating the exploration by Higher Education Institutions of improved approaches to recruiting students and delivering programmes of study within these disciplines. The core strands of activity focus on widening access, developing the HE curriculum, and workforce development.

Why STEM?

STEM graduates are highly valued by employers not only for their technical competency but also for their analytical, problem-solving, numeracy and intellectual skills. An adequate supply of graduates into the labour market with STEM (Science, Technology, Engineering and Maths) skills underpins the ability of the UK to position itself against global competitors, increase its capacity for innovation, and for enterprise in areas such as hi-tech IT and science.

However, this is not a picture made up solely around issues of supply and demand. Concerns have emerged in recent years as to the work readiness i.e. lack of appropriate generic and technical employability skills, of new graduates entering the market. Furthermore, the current workforce is increasingly required to develop higher-level skills, skills that the Higher Education needs to provide in an accessible and flexible manner if the sector is to help in addressing the needs of employers.

Workforce Development

The Programme has jointly identified a set of national priorities with partners and other key informants such as HEFCE, the Sector Skills Councils, Higher Education Academy and

Department of Business Innovation and Skills; these include a clear route/access into Higher Education Institutions for employers, the development of flexible and affordable up-skilling services, and raising awareness of STEM careers.

MMU is leading the regional response to these priorities. In particular, the enhancement of good practice models for delivering flexible and affordable up-skilling services, building on its experience of developing employer responsive provision through both the HEFCE and NWDA funded Higher Level Skills Partnership (HLSP) and HEFCE funded Working Higher projects.

One of these HLSP projects was developed in response to gaps identified in technical laboratory skills in the chemistry-using industry, and the Working Higher programme arose from an appreciation of the need for a suite of flexible, work-based Foundation Degrees for the science-based industries. MMU has developed a 'legacy' project in partnership with the National HE STEM Programme and with the support of the National Skills Academy for the Process Industries and Chemicals Northwest that will build on this

experience to address this up-skilling requirement. The project will widen the areas of STEM relevant provision developed to include Maths and Engineering and will collaborate with other HEIs and FECs in the region to develop models of good practice for the delivery of sustainable services to industry.

Further information on topics discussed in this article, can be found at www.hestem.ac.uk and www.mmu.ac.uk/hestem. For information of the legacy project, please contact the North West HE STEM Programme (Higher Skills) Team

Contacts:

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Tel. **0161 2476197** or **07717785052**

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07824 408618



Academy to boost biotechnology skills

In March 2010 the National Skills Academy Process Industries (the Academy) was given the go ahead by BIS (Department of Business Innovation and Skills) to develop a business plan aimed at extending its footprint to cover two new and emerging technologies; Biotechnology and Composites. That business plan has now been submitted with the BIS decision expected in early December. If successful, the extension would be a natural evolution of the Academy's current activities in the chemicals, polymers, pharmaceutical and downstream petroleum sectors.

Challenge and opportunity

Although it is widely accepted that the biotechnology sector is growing, from a number of directions, recent surveys (including those from Cogent/Semta, IChemE and BIS) have identified barriers which could delay that growth. A lack of awareness of the potential of the technology is one problem, but there are also a number of issues around skills: hard to fill vacancies; leadership skills; a lack of specific technical skills; and the need for more technical entrants and career pathways.

As Dr Keith Layden of Croda International Plc stresses "There is a pressing need for multi-skilled graduates and technicians if the UK Biotechnology Sector is to deliver the significant benefits from this emerging technology. To this end I would like to add my support to the proposed expansion of the activity of the Academy to cover Biotechnology, based upon its success in its other sectors."

With the opportunity to build on its existing success, the role of the new branch of the Academy would be to address these skill problems and underpin the potential growth of biotechnology, both at sector level and by supporting individual companies.

Dr Ian Shott, Co-Chair Industrial Biotechnology Leadership Forum adds,

"One of the five key recommendations from the Government's Industrial Biotechnology Innovation and Growth Team in 2009 was the need to retain and develop interdisciplinary talent in science and management. The Academy has clearly demonstrated that it can catalyse up-skilling in the work it has undertaken over the past three years and I would like to add my support for the proposed extension of its activity to provide equivalent benefits to the UK Biotechnology Sector - thereby helping deliver the recommendations of the IB-IGT."

Wide consultation and industry support

In pulling together the business plan, the project team have already consulted widely with industry, training providers and stakeholders. However, there is still an opportunity for industry to come forward and lend its support – in the form of a letter or a commitment to use future products and services – best of all by a pledge of financial support to be added to the pump prime funding being sought from Government, necessary to establish the new Academy sectors in the early years.

As Iain Taylor, Biotechnology Sector Specialist points out 'We're so grateful to those companies who have already pledged financial support but we need more Companies to come forward. We can reassure them that, should our bid be successful, actual payments will provide tremendous value for money and will, of course, be subject to commercial agreement following further discussion around how we can meet the Company's specific skills needs'.

Anyone interested in contributing to the establishment and development of the new National Skills Academy – Biotechnology, should contact Iain Taylor on **07894 483698** or email i.taylor@process.nacademy.co.uk



Industry representatives turn-out to endorse skills and training

Total winning the Investor in Training award at the Chemicals Northwest 2010 awards dinner

On the 11 November representatives from the North West's £10.2 billion chemical industry attended the Chemicals Northwest and National Skills Academy Process Industries' (the Academy) joint event to promote the importance of competence based development. Five industry speakers presented the challenges they faced, the solutions identified and the outcomes delivered. They highlighted the various ways the Academy was able to help e.g. identifying and delivering bespoke development solutions to specifically fit particular employer scenarios to securing funding where possible.

Jonathan Kemp from Advanced Electrical Varnishes (AEV) got the presentations underway, demonstrating how the Academy had helped AEV to identify funding to enable the rollout of Business Improvement Techniques (BIT) and Chemical Process Operator training. Jonathan discussed how a phased approach had been deployed at AEV and that by placing three Supervisors on the Level 2 BIT NVQ to begin with; it had "stimulated increased levels of interest and even a little healthy competition amongst colleagues." AEV continue to train their staff and aim to achieve their outcomes using the Gold Standard framework for their entire workforce.

David Nicholls from Innospec followed on with a different perspective by talking about using the expert services of an Academy Accredited Associate to undertake a

Productivity and Competitiveness (PAC) Analysis. They used one to help identify and drive dynamic productivity improvements supported by the delivery of the Level 2 BIT NVQ qualifications for the workforce using their internal trainers.

Ann Clark from Total Petrochemicals (winner of the Chemicals Northwest, Investors in Training Award 2010) discussed the development of a strategic training plan and illustrated how the Gold Standard framework had been utilised to create role profiles for various functions following a re-structure in the organisation. She described the Gold Standard, as an "Excellent base for benchmarking." The role profiles were then used to evolve an on-going organisational development plan, which is supported by the Academy.

Ronnie Fisher, General Manager at Pentagon Site in Workington described the extensive upskilling programme delivered there for all Operators and Shift Managers. This is supported by a full time internal Skills Assessor to ensure compliance and continuous improvement. The company is now expanding the model to their Halebank Site and this is already showing positive outcomes.

John Jones from Warwick Chemicals talked about how the company had used their excellent process improvement skills developed through BIT to support the delivery of a new program using the Total Planned Maintenance model. He illustrated

this with the example of a poorly performing plant which was turned around by using TPM, for example the plant and OEE (Overall Equipment Effectiveness) was increased from 33% to 74%. As shown this project not only delivered bottom line improvements, but also resulted in them winning a National Training Award. Warwick Chemicals were one of the first companies to embrace the Gold Standard Framework.

Finally Steve Tynegate now running Mersey Management Solutions, but formerly Site Manager at Bayer Crop Science exploded the myths frequently cited by companies for not effectively embracing a structured competence based approach to training and discussed the positive impacts achieved by the site. Steve has a strong association with The Academy and is a keen advocate of the approach they take, which brings similar opportunities for success to companies who might not have the support of a large parent group.

The feedback received was excellent and the presentations generated lots of discussion both in session and during the networking breaks.

In closing the event Roger Langford said, "New initiatives resulting from these developments have reduced waste, improved safety compliance and in all cases improved financial performance."

For further details on the Skills Academy please contact Roger Langford
R.Langford@process.nscademy.co.uk

Chemicals Northwest Industrial Development Manager Inspires our future generations

Part of Chemicals Northwest's remit is to encourage younger people to take up chemistry as a study option and subsequently consider a career in the chemicals industry. This is not only done formally through our schools programmes (Children Challenging Industry and Collaboration of Schools and Industry) but also through informal requests from local schools and universities.

Chemicals Northwest's Industrial Development Manager Amy Peace has had a busy term inspiring some of the regions youngsters about studying chemistry and the types of jobs and companies available to them. She says 'For some groups, the first hurdle is getting over the fact that everything around us is made of chemicals, whether from natural or synthetic sources. Once this is clear, the idea that chemistry "is just experiments in science labs" changes to something that affects every aspect of our lives. This is an important aim for us – we don't expect every student to work in industry, but I hope they leave the talks with the feeling that they value the work scientists and engineers do through the industry to tackle the grand challenges on this planet, such as water availability, resource shortages, growing populations and climate change.'

Industry has changed dramatically over the last 10 years, so many of the companies that are now thriving in this region are not the names that students, teachers and parents would recognise. We're keen to ensure that, just because names such as ICI have gone, students still see the potential for rewarding, quality careers within the sector.

In addition to speaking about chemical engineering at The Heath School, Runcorn as part of their 'Engineering Day', Amy has represented the chemical industry at the RSC's Young Persons Symposium at Manchester Metropolitan University and spoken about careers in science and engineering at the Grange School in Cheshire.

In November young people from some of our member organisations joined Amy at a panel discussion on chemistry related careers at the Aim Higher Conference at St Mary's college in Blackburn and shared their study, career choices and experiences with Year 12 students.

Matteo Dalla Valle from The REACH Centre and Christie Neild from Syntor joined

Why we need Scientists and Engineers

Chemicals
northwest



The world's population will rise from 6bn to 8bn (33%)

Demand for food will increase by 50%



Demand for water will increase by 30%

Demand for energy will increase by 50%



John Beddington, UK government's chief scientific adviser

Sarah Hindley, a Research Chemist at SAFC Hitech who said of the event "During my time at school opportunities to gain an understanding of what the chemical industry involves were limited. By participating in careers events, as a person who now has some industrial experience, it is nice to have the opportunity to inspire the chemists of the future. It's important to inform young people of the many varied careers and jobs roles available through chemistry seeing as chemistry is the basis

of all our day to day products."

We're also trying to ensure that students make some consideration as to what potential employers are looking for in their future employees. Consequently, if any companies would like to get in touch with us about the messages they'd like to get across, case studies that we could use, or new young employees who would be willing to help out with careers events, please contact helen.cross@chemicalsnorthwest.org.uk

Help graduates to 'Kick Start' their career

Kick Start is an annual event run with SCI (Society of Chemistry and Industry) giving chemistry and chemical engineering students from Bangor, Liverpool and Manchester universities an idea of what is available to them in the world of work. Next year the event is taking place at the University of Manchester on the evening (5pm – 8pm) of 3rd February.

A number of talks from young chemical industry professionals provides the basis of the event with students then having an informal opportunity to ask questions and find out more over a buffet and drinks.

Around 150 students have attended each of the recent events and we welcome industrialists to come along and meet



tomorrow's employees and help impart some knowledge of the varied and interesting careers open to them.

If you would like to participate please contact Helen.cross@chemicalsnorthwest.org.uk and we would welcome your input.

Enterprise Week at Catalyst

Helping to save our planet was high on the agenda during Enterprise Week at Catalyst and nearly 200 pupils from across Cheshire took part in the ever popular Enterprise Challenge between 15th and 19th November.

Pupils started their day in the interactive theatre where they watched the "End of the World Show", a Dragon's Den style film where six contestants present inventions that they hope will help save the planet. This presentation aims to entertain pupils, yet get them to consider the serious subject of sustainability. The winner was then chosen by the pupils via the interactive voting buttons.



Pupils from Christleton High School demonstrate their winning design

Following the film, the pupils moved to the education studios where they divided into small groups and in just one hour each group designed a product that could help

to save our planet – a challenge indeed! They considered their potential markets, they developed a trial product, devised a marketing plan and produced a powerpoint presentation.

There was no shortage of brilliant ideas from the pupils ranging from the "H2Go" a water powered car which aimed to save fossil fuels and create a cleaner environment to the "Ocean Energy Producer" with solar panelled wind turbines above the ocean, hydroelectric turbines below the ocean and geothermal energy probes under the ocean bed! In fact the winning team from Christleton High School on Wednesday came up with something they called the "Pressure Power", floor tiles that would move up and down as people walked across them, thus producing energy that could be collected and stored for use later. Pupils were amazed to learn that an invention similar to theirs was already in use in a nightclub in London where a "bouncing" dancefloor generates a large percentage of the electricity needed to run the club!

Throughout the week, Catalyst was grateful to have judges from a wide variety of careers who took time out of their busy schedules to watch the powerpoint presentations and question the pupils about their creations before choosing the



winning team. Judges for the week included Dr Jenny Clucas CEO of Chemicals Northwest, Dr Mike Pitts from Chemistry Innovation, Bryan Davies Trustee Chairman at Catalyst, Barbara Jordan Chief Editor from the Widnes World Newspaper and representatives from organisations such as Pilkingtons, Alupro and Novelis.

Kate Ravenscroft, Marketing Manager at Novelis said, "I was very impressed with the range of ideas and the way that the teams had thought about the environment and their planet. You never know maybe one day we may see some of these in production!"

www.catalyst.org.uk

Making work experience work for you

How do you find the best people in the industry? Trying them out on a 'no strings' work experience placement can inspire them about the impact they can have on a business and also give you an insight into the difference they can make to your organisation.

Rockwood Additives is no stranger to welcoming work experience students on site and this year had David Pennefather, an A-level student, for 7 weeks. During his time at Rockwood David received news of his excellent four A* A-levels in chemistry, maths, further maths and physics and is now settling in to a chemical engineering degree at Cambridge University.

At his time at Rockwood David learnt

(mostly self taught) to use a 2D CAD package and carried out a P&ID survey of the one of the site's operational units, marking up and re-drafting the drawings as necessary. He was also set to work in making Rockwood's drawing office more accessible via the site intranet; making PDF copies of all the site drawings and re-fashioning the drawing registers. All employees can now allocate new drawing numbers and deposit new drawings in the system. David also supervised and validated a software update for the scanning software that eradicated a bug in the previous installation and he spent some time in their pilot plant assisting with product development activities and looking at the effectiveness of one of their dust extraction systems.

Steve Kalaher who managed David during his time at Rockwood said 'David was a willing and motivated individual who would ask for more work rather than take a breather. It meant we could get jobs done that weren't top priority but still needed doing. It also gave David the opportunity to work on real kit and make improvements to systems that continue to be used since he has moved on.'

By taking on work experience students companies can not only have some invaluable work undertaken but they can also help to shape the career of a young person and help give them confidence to continue their studies and ultimately fill the skills gaps emerging in our industry.



Not currently a member of Chemicals Northwest?

Why not join us and add your voice to the community of chemistry-using industries in the North West, the UK's largest chemical manufacturing region?

How you will benefit:

- Opportunities to promote and grow your business within the sector and beyond.
- Networking and learning from peers at industry events.
- Participate in strategic regional projects and advocacy for the benefit of your business and the industry as a whole.
- Contribute to the industry's voice in influential forums.
- Workforce development opportunities through the National Skills Academy for the Process Industries.

Membership rates for the year 1st April 2010 – 31st March 2011 are: £130 +VAT for Individual Members and £470 +VAT for Corporate Members.

For a comprehensive list of member benefits* or to join us, visit: www.chemicalsnorthwest.org.uk or call 01928 515 678.

**Please note that some benefits are date specific and may not be applicable to companies joining throughout the year.*



New Frontiers event

The second event in the New Frontiers series took place on the 23rd September at the Cube in Manchester. The event was attended by over 50 delegates, including a number from overseas. The theme of the evening was to show how innovations in materials chemistry can help with sustainable buildings. The event kicked off with a presentation from Richard Miller, Head of Sustainability from the Technology Strategy Board, who discussed how buildings and the materials used to build

them, have evolved. Phil Green from BASF presented the BASF house built in the grounds of Nottingham University which was constructed for £70k using BASF Technologies to make it a more efficient house than PassivHouse standards and uses only 10 kW oil per square metre per year. Troy Manning from Pilkington's NSG group finished off the event with a presentation on flat glass technology and how this enables buildings to be sustainable.

Resource Efficiency event

On the 16th September our Chemical Elements event focused on Resource Efficiency and headed to Haydock Park Racecourse. The informative event started with an introduction from Chemicals Northwest resource efficiency project manager Duncan Simcock who gave an update on the programme, which is still open to help SMEs across the sector. Simon Binyon from ARL Consulting spoke about water and waste while Duncan Woodcock from ABB covered how companies can save energy if they put the time in to map their resources. There were many knowing looks from the audience with the suggestion that, for some companies, the first hurdle can be just locating the energy and water meters – if you can't measure it, you can't manage it! Todd Holden from ENWORKS gave a generalist picture on why resource efficiency is important to consider in commercial situations. This provided excellent discussion points as to why just knowing something is bad for you isn't sufficient to make you act, but also that on the global scale we won't have a choice soon on being resource efficient. The event was

EVENTS CALENDAR

Chemical Elements

CE:97 Sharing Best Practice: Case Studies from our 2010 Award Winners

Date: 9th December 2010

Venue: Catalyst Science & Discovery Centre

Other Events

Printed Electronics Masterclass – In conjunction with UKTI, KCMC, Petec & PPE KTN

Date: 19th January 2011

Venue: Hilton, Manchester Airport

Kickstart your career

Date: 3rd February 2011

Venue: University of Manchester

Low Carbon event in conjunction with UKTI (TBC)

Date: 22nd February 2011

Venue: Manchester (TBC)

For more information, visit

www.chemicalsnorthwest.org.uk

or call 01928 515678

rounded up with information on a new resource efficiency qualification (see page 7) provided by Cogent. The feedback was excellent and the event was described as "very informative and well worth attending."