

elements



In this issue:

Digitalisation and productivity

Optimism in the UK chemicals sector

Hosokawa's digital journey

Engineering apprenticeships at Siemens

2M Holdings Group of Companies

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Membership 2017-2018

Would your company benefit from joining an organisation that supports and promotes the chemistry-using sector in the Northwest? Do you want to understand more, and contribute to, the industry issues within the region?

If you are a manufacturer, chemical user or offer products and services to the sector, why not join us today? See over for details or please contact:

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alex.abraitis@chemicalsnorthwest.org.uk or visit:

www.chemicalsnorthwest.org.uk/membership/membership_benefits/
2016-2017 Rates

Micro corporate membership	(1 - 10 employees)	£410+VAT
Standard corporate membership	(11-100 employees)	£713+VAT
Large corporate membership	(100+ employees)	£908+VAT

Welcome

CNW has been taking more opportunities to go out and about and visit our members offices and sites. We are seeing how the major issues facing businesses impact on them in real life and how companies deal with them.

We are also finding interesting stories, new initiatives, new opportunities and examples of collaboration. In this issue of elements, we hear how Siemens is advancing its engineering degree apprentice programme and how the company is working with fellow CNW members Peak42 and Hosokawa Gen4 in creating innovative digital solutions in improving process performance. We also get a business update from Quat-Chem Ltd after meeting with the Rochdale management team in September.

The CNW Awards 2018 programme call for entries has been launched. Please tell us about your new developments and successful projects. As usual there are great sponsorship opportunities and we thank everybody for their support, key in delivering a great night!

Cyber security is getting more and more press recently. High profile hacking cases and an increasing number of crime statistics for fraud. A varied range of speakers is confirmed for the next CNW conference on this subject on 17 January 2018. The programme also addresses the forthcoming GDPR which will have a major impact on businesses.

Keeping an eye on Brexit developments has been a challenge for most sectors. The CNW Brexit group takes a look at potential trade and tariff implications and progress against the background constitutional journey.

We also hear from regular contributors on REACH implementation and the regulators priorities as we approach the final deadline next year.

The Chemistry Growth Partnership is currently undergoing a strategic review, four years after its launch. The supply chains working group will meet in December.

Following a review and creation of the new website directory, we are proposing to incorporate a regular suppliers listing in elements magazine. A short consultation will be sent to membership soon.

John Roche
Chemicals Northwest

About us...

Chemicals Northwest is an established business network wholly owned by the Chemical Industries Association.

With over 160 members we actively promote this important regional sector and help support membership to grow. Our aim is to improve the sustainability, competitiveness and image of the industry by:

- **facilitating** networking events, common interest groups, interactive workshops and an annual conference, all aimed at covering topical industry issues.
- **supporting** projects and programmes that identify and enhance business performance and generally support continuous improvement across the sector.
- **promoting** science and engineering based skills, helping to address the region's future needs.
- **improving** the image of the industry overall, including generating a positive reputation, through communicating achievements and success.
- **contributing** to the industry's strategic voice and the national growth agenda aligned to the work of the Chemical Industries Association.
- **connecting** the community of chemistry-using businesses and the vital supply chains here in the Northwest.



Events - Chemicals Northwest continues to host, sponsor and participate in a number of industry-related seminars, workshops and networking events throughout the year, for the benefit of the cluster and the region. We actively encourage all those connected with the chemistry-using industry to come along to these events for an opportunity to hear about key issues relating to the sector and network with others.

Annual Awards Dinner - During the annual CNW awards programme we are privileged to witness the many achievements made in our local sector. Culminating in a great night of celebration each year's awards are a fantastic way your company can support the region's chemicals sector and help raise your own profile. Up to 300 guests from across the industry gather on the night and everyone can see for themselves the amazing achievements made by our people and organisations. Details are available in this issue on making an entry against an award category.

"Focus 50" - This recently named series of seminars and networking events is becoming ever more popular.

Over the years CNW has focused on a range of highly topical and relevant business issues. Technical, regulatory and operational insights have been delivered by experts in their fields. These events ensure good practices are shared and all gain new knowledge. As businesses get to grips with the changing landscape there will always be new issues for members to analyse.



Networking - Chemicals Northwest really does bring people together! It is an essential feature of successful networking strategies used by many organisations. We coordinate a range of meetings and events to enable 'face to face' networking for the benefit of all members.

Breakfast Networking - Chemicals Northwest is gaining a growing reputation for high quality breakfast networking events. With no specific theme, delegates are encouraged to make new contacts and some will make short pitches about their company, its products and services plus news announcements! The breakfast meetings have proved to be very popular and currently run on a 2 monthly basis attracting an average of 40 people each time. New contacts can lead to new opportunities and new business. All are welcome.

Common Interest Groups - Chemicals Northwest's REACH user group has followed closely the developments within this complex and long term piece of legislation. The initiative allows the sharing of experience, best practice and knowledge between manufacturing, supply chain and support service providers, all with a keen interest in **REACH**. The group meets 3 times a year and now has a membership of over 50 companies.

CNW started the **Brexit** user group straight after the referendum in 2016 and it is gaining more and more support from membership. Whilst there is still uncertainty, many businesses will be looking to the future impacts, so we are enabling all interested parties to meet and discuss in more detail their common issues and concerns. Up to date information, insights and reports form the basis of each agenda, which will run parallel to the national work carried out by CIA.



Communications - Every successful business networking organisation will need effective communications channels. As a result of gradual development over recent years, getting messages across, promoting member companies and reporting news, Chemical Northwest has reached new levels of topicality and quality.

Elements Magazine - CNW produces an informative quarterly magazine called Elements which contains the latest round up of member news, specialist features on topical chemical industry issues and 'spotlights' on new company members. This is a great opportunity for member companies to establish an association with those sector issues by contributing free editorial and press releases. Companies who do business in the chemicals sector may also wish to look at advertising options.

Website - Visits to the CNW website have almost doubled in the past 12 months. The website is regularly updated with industry news and events programme, companies are increasingly using it for enquiries and advertising. There is an efficient "e-shot" function which allows companies to reach 1000s of contacts on our database. Viewers of the directory pages can search the whole of our supply chain providers to find where to buy products and services.

LinkedIn - The Chemicals Northwest LinkedIn group was created in the latter half of 2010 and has an ever increasing membership, with over 1300 members now connected. The group gives the opportunity for chemical industry professionals to share ideas and knowledge. It was created in order to encourage collaboration within the industry and provide even more opportunities for individuals to network. Why not join us and see how it can benefit you and your business.

Twitter - The CNW Twitter account is growing, so to hear about the latest news from CNW and the wider sector, why not follow us. In addition we'd be happy to re-tweet any news or updates that members themselves tweet.

The wider chemical and pharmaceutical sector, which is the largest exporter of manufactured goods with annual exports of £50 billion, is continuing to grow according to the latest survey of the Chemical Industries Association.

Member companies of the Association report the strongest employment growth over the past three months since 2015 with a balance of 12% reporting an increase in jobs to the sector's 140,000 direct workforce. Sales (13%) and export (6%) volume growth have remained stable. The outlook for the next 12 months is tempered by Brexit uncertainty, but capital investment (30%), research and development expenditure (24%) and jobs (15%) are also set to continue to grow over the next year. It is the longer term investment that is a worry, until the Brexit position is clearer.

Chemical sector exports rise but falling investment is a big worry

ONS balance of payments data shows that between Q1 and Q2 2017 the export of semi-manufactured goods increased by £1.3 billion which was mainly due to exports of chemicals, including pharmaceuticals and plastics.

Between the first half of 2016 and the first half of 2017, the exports volume or constant price value of chemical and pharmaceutical products increased by £1 billion or 4.3%, contributing 20% of the increase in UK manufactured goods exports. In spite of the impressive export figures there has been a fall in investment in the chemical sector, with investment by chemical and pharmaceutical businesses in the first half of 2017 22% lower than in the first half of 2016.

European Commission survey also shows optimism

European Commission survey data collected by the CBI shows optimism amongst UK chemical manufacturers in August 2017 at its highest level since the survey was launched in 1988. This matches well to the optimistic outlook of chemical and pharmaceutical businesses who took part in the July 2017 CIA Quarterly Business survey. However, businesses remain extremely concerned about potential disruption to trade when the UK leaves the EU. The European economy has seen a strong recovery in growth in 2017, outpacing that of the UK. GDP in the Eurozone grew by 2.2% in the first half of 2017 compared with the first half of 2016 whereas GDP grew by only 1.7% in the UK. This further strengthens the argument to maintain free and frictionless trade with the rest of the EU, our biggest trading partner.

Latest workplace fatality figures

The Health & Safety Executive has reported that a total of 137 workers were killed at work in Great Britain in 2016/17. This is 10 less than in 2015/16, as the Executive says this may be due to possible natural variation in the figures, which are still to be finalised. It is the second lowest year on record after 2013/14 and represents a recent levelling-off, with 142 as the annual average over the past five years.

Most fatalities (30) occurred in the construction sector, with manufacturing accounting for 27. When you consider the fatal injury rate as the number of fatalities per 100,000 workers employed, the waste and recycling sector has the highest rate with 12.69 per 100,000 workers. The most occurring types of fatal injury were being struck by a moving vehicle (31) and falls from height (25).

Fee For Intervention update - A major change took place in September this year when the make-up of the dispute review panel within the Fee For Intervention scheme became fully independent of the HSE. The panel now comprises an independent lawyer as chair and who two experienced health and safety experts. Furthermore the HSE should now provide more information regarding the identified material breach and the investigations carried out.

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UK environment regulator guidance on soil screening values published

In November the UK environment agencies (EA, SEPA, NRW, NIEA) published guidance on “Derivation and use of soil screening values for assessing ecological risks”. Soil Screening Values (SSVs) were first proposed by EA for ecological risk assessment of historical soil contamination, defining levels below which there is unlikely to be any risk to soil health and its functions. The new guidance relates to landspreading waste-derived materials to improve soil by adding nutrients, organic matter and altering pH.

BEIS launch consultation on streamlined energy & carbon reporting - 9 November 2017, the Department for Business, Energy and Industrial Strategy (BEIS) launched a consultation on the design of a new ‘simplified’ energy and carbon reporting framework. The new framework aims to replace reporting requirements under the CRC scheme, which comes to an end in March 2019, and to streamline reporting across the remaining carbon reporting schemes. The consultation will look at the scope of who is included, as well as what information is reported and how it is reported.

The assessment and classification of waste packaging

This guidance document was developed by trade associations representing companies operating in the chemicals supply chain that use packaging. The Environment Agency, Natural Resources Wales and Scottish Environment Protection Agency have welcomed the development of this guidance and have agreed to its adoption in England, Wales and Scotland.

The document provides guidance for assessing whether packaging to be taken off-site is waste or not? And whether it should be classified as hazardous or non-hazardous. It includes a method that allows for the weight of the packaging to be taken into account and is intended to be complementary to the joint environment agencies’ Technical Guidance WM3. The guidance will also support companies in the context of resource efficiency and the concept of the circular economy.



Withdrawal Bill. Appearing before the Department for Exiting the European Union Select Committee in a two-hour session, Steve spoke about the importance of the industry, the significance of securing minimal disruption from any EU exit and the implications for REACH from implementation of the Withdrawal Bill. In particular he stressed that a simple ‘copy and paste’ of EU law into UK law would not be sufficient to secure continued market access to the EU as the legal status of UK companies under REACH would change.



Politics



Chemistry Growth Partnership shows Government how growth will happen during and after Brexit

The November meeting of the Chemistry Growth Partnership was attended by Government ministers Claire Perry (Minister for Industry and Climate Change and co-chair of the Partnership) and Steve Baker (Brexit minister). Steve Foots, Chief Executive of Croda International plc and Co-Chair of the Partnership, demonstrated to ministers and civil servants how the industry was of course acknowledging Brexit and supporting both sides of the negotiations to ensure the UK got the best deal possible. Members also endorsed a proposal to review the CGP – first established in 2013 – with the existing strategy, CGP composition and governance, branding and communications to be reviewed by the first quarter of 2018, followed by consideration of a sector deal submission in Q2 2018.

CEO gives evidence in Parliament

Steve Elliott CEO of CIA gave evidence in Parliament on 18 October 2017 on the Government’s European Union

What is the Industrial Digitalisation Review?

The industrial digitalisation review is being carried out by leading business figures on behalf of Government to assess how UK manufacturing can benefit from increasing digitalisation and technological change. Some countries call it Industry 4.0, others refer to it as the Internet of Things. Our aim is to see how Britain can benefit from the rapid technological changes society and business is undergoing.

The Industrial Digitalisation Review was announced as part of the Government's new Industrial Strategy on 23 January 2017. The review is chaired by Juergen Maier CEO Siemens UK and Ireland and is tasked to assess how the UK can benefit from the accelerated adoption of digital technology across advanced manufacturing. The review is backed by the newly formed Productivity Leadership Council, which received support from the Government in the November Autumn Statement.

Representatives from business include Sir Charlie Mayfield (Chairman, John Lewis Partnership), Phil Smith (Chairman, Cisco UK & Ireland), Carolyn Fairbairn (Director General, CBI) David Stokes (CEO UK & Ireland, IBM), Oliver Benzecry, (CEO of Accenture UK), Roger Connor (Head of Global Manufacturing, GSK) and Nigel Stein, (CEO of GKN). The Industrial Digitalisation Review leadership team will engage with large and small businesses alongside academics to see how the design, development and deployment of digital technologies can drive increased national productivity.

The completion of the review will result in a blueprint for a 'Sector Deal' for manufacturing and industrial sectors, which could see government and business partners increase the take up of new technologies in the UK. It is expected that the leadership team will look at the following challenges across UK industry;

- Driving productivity improvement.
- Boosting skills and the number of high value, high productivity jobs.
- Promoting competition and innovation.
- Facilitating long term investment between suppliers and large companies.
- Identifying where the greatest value can be gained from new technology.
- Developing and growing the strengths of particular clusters.

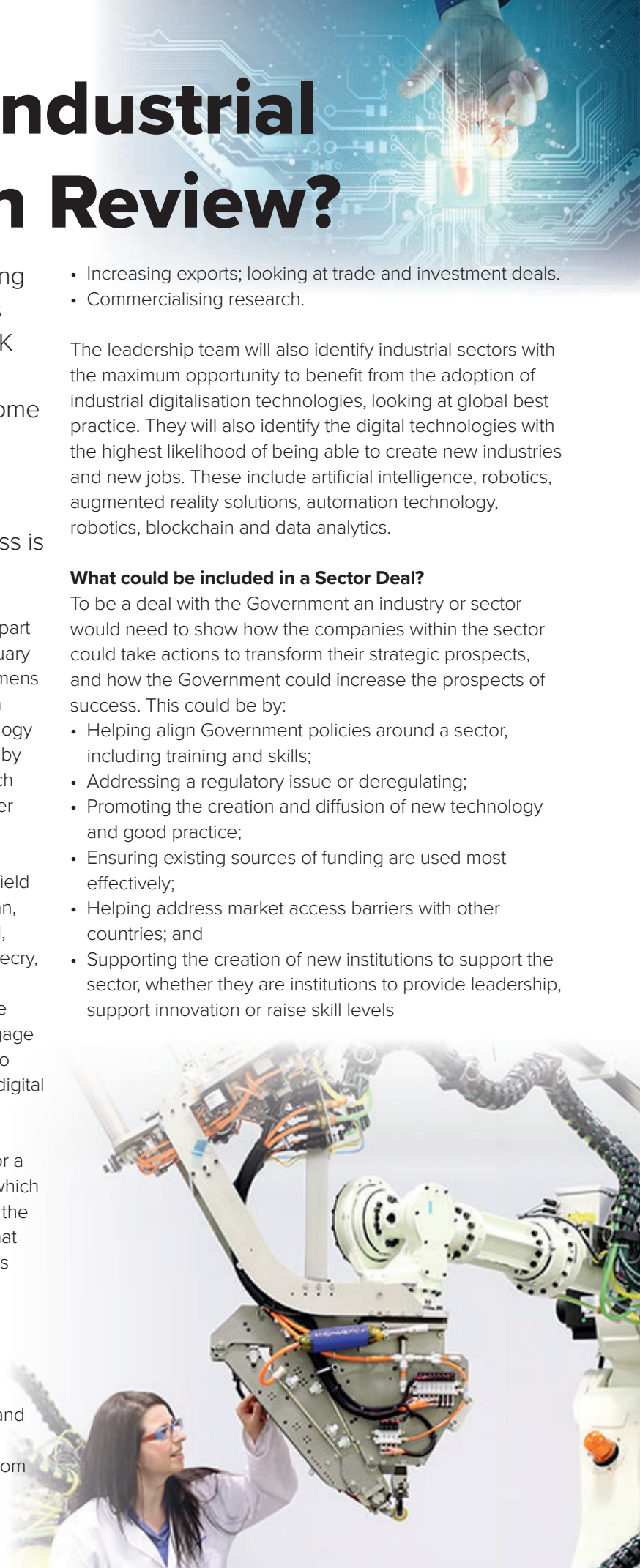
- Increasing exports; looking at trade and investment deals.
- Commercialising research.

The leadership team will also identify industrial sectors with the maximum opportunity to benefit from the adoption of industrial digitalisation technologies, looking at global best practice. They will also identify the digital technologies with the highest likelihood of being able to create new industries and new jobs. These include artificial intelligence, robotics, augmented reality solutions, automation technology, robotics, blockchain and data analytics.

What could be included in a Sector Deal?

To be a deal with the Government an industry or sector would need to show how the companies within the sector could take actions to transform their strategic prospects, and how the Government could increase the prospects of success. This could be by:

- Helping align Government policies around a sector, including training and skills;
- Addressing a regulatory issue or deregulating;
- Promoting the creation and diffusion of new technology and good practice;
- Ensuring existing sources of funding are used most effectively;
- Helping address market access barriers with other countries; and
- Supporting the creation of new institutions to support the sector, whether they are institutions to provide leadership, support innovation or raise skill levels



Closing the gap: digitalisation and productivity

The North West Business Leadership Team (NWBLT) is an organisation with a 30-year history working across sectors and across the region with its most influential business leaders. Its goal, through this collaboration, is to make the North West a great place to live, work and do business.

The productivity problem

The first step in this process has been to identify the problems and hurdles the North West faces as it seeks to grow and develop. "Productivity" is often perceived as an ethereal buzz-word used by business and government as a catch-all phrase on which to blame for a multiple of national and regional ills. The truth is that many of these issues, such as low pay and low investment are truthfully the result of low productivity. Productivity is measurable. It is the number of hours of labour expended to create output, with output typically being measured in revenue by businesses or GDP by governments.

The UK is one of the least productive nations in the OECD; our national productivity ranking is very worrying. When we look at the North West region the problem appears more acute. The North West has a productivity ranking below the already less-than-impressive national figure. If we are to overcome the challenges of inequality, low paid jobs and low investment we must bridge the productivity gap.

Digitalisation

A possible solution to our productivity problem is to harness digital technology in all production processes. The opportunity for business is to fully harness the technology of the past two decades in order to boost productivity, profitability, the overall number of high paying high skilled jobs and go a long way to counteracting the environmental by-products that result from simply conducting business.

So why are businesses not jumping on this panacea for all of their corporate woes? The answer is that while some businesses – including many NWBLT member organisations - are embracing digital technology, there are barriers that the private sector alone cannot overcome. For true digitalisation to occur it must be enabled by Government policy alongside a coherent industrial strategy.

Chemicals and digitalisation

Digitalisation can and will impact all sectors of the economy. If we are able to get out in front of it we will be able to revolutionise all industries. The chemicals and chemical manufacturing sector is already experiencing this revolution.

BASF, the largest global producer of chemicals, is using digital technology to increase productivity in unexpected

areas. Partnering with software firm Proagrica they hope to bring the first farm management system interfaces to the market, increasing accuracy in soil evaluations to allow for more precise agricultural decision making, resulting in more efficient and successful farming.

It is the crossover of digital technology into all sectors, from agriculture to manufacturing that creates the potential to make production more efficient and allows farmers, for example, to produce much more from their labour. Inter-sector communication of best practice will allow us to revolutionise all industries through the use of digital technology.

The technology alone cannot work as the solution to the productivity problem in isolation. There must be an overhaul in how we train our farmers, our engineers, our factory workers and all people working in the modern economy. It is of no use to have the technology for a farmer to accurately analyse soil if they lack the necessary computer literacy to work the new digital technology. Furthermore, there must be a serious evaluation of the connectivity and access to fast broadband for all, particularly in the rural economy, if this technology is even able to be functional.

A modern industrial strategy

It is clear that the UK and UK business needs to embrace digitalisation as a means to improving productivity. This process must begin today. The UK is already behind in productivity rankings, if we fail to embrace digitalisation we risk falling behind further and seeing the gap widen to the point where to bridge it would be impossible. Yet, the responsibility cannot be left to the private sector alone, there must be cooperation, collaboration and communication between businesses and Government, both local and national.

Government can overcome infrastructure and skills problems. National and more recently, thanks to devolution, regional government has begun to consider the upsides of a 21st Century industrial strategy. The government must continue to listen to business, but it must then turn these concerns and considerations into policy to foster the best possible environment for the UK to lead in the fourth industrial revolution that will emerge as a result of digitalisation.



A unique collaboration

bringing Industry 4.0 to life in the northwest

Headquartered in Japan, the Hosokawa Micron Group celebrated its centenary in 2016. Worldwide, the group has a global turnover of Yen 50 billion and over 1500 employees. Hosokawa has had a UK presence since 1957 with the current Runcorn site opening in 1982.

The company operates in four main business areas centred primarily around the design, build and selling of processing equipment and containment and pack-off equipment; the installation and commissioning of new machines and integrated processing systems at customers' sites; contract processing of customers' materials using Hosokawa equipment and tailored, in-line process systems and the OEM refurbishment and maintenance of equipment on behalf of the customer.

"Hosokawa Micron Ltd.'s (HML's) extensive heritage in process technology makes us a renowned single source supply of particle and powder processing equipment and technologies, this project has launched us into a major Industry 4.0 initiative which allows us to deliver advanced solutions to our customers and a wider industry group", says managing director Iain Crosley.

In Runcorn, HML's contract processing facility can handle ultra-small batches through to multi-tonne lots. A rigorous control policy and the availability of individual, dedicated suites allow HML to process a diverse range of customer materials, ranging from hazardous chemicals to food grade ingredients. The contract processing service supports customer requirements

for single machine processing to the development of a bespoke process, returning a final product to the customer to meet agreed end-product specifications.

Consistent with its position as a sector innovator, HML has embarked on a major digital strategy for contract processing. Over the last 18 months, management has made a major investment in improving the performance and productivity of its operations through the application of emerging 'industrial internet of things' (IIoT) technologies in combination with vital human expertise.

In this way, HML is harnessing smart sensor data with machine-to-machine (M2M) communication and applying advanced analytics to better understand, monitor and control individual assets and plant operations – either onsite or remotely via mobile apps. Outcomes are improved productivity, quality assurance, proactive maintenance programmes, supply chain efficiency and people development.



Building on the operational benefits and knowledge gained from this project, HML recently launched a new business unit, **Hosokawa Gen4**, to support other companies within the process industry to develop their own digital strategy and realise the potential of IIoT technologies.

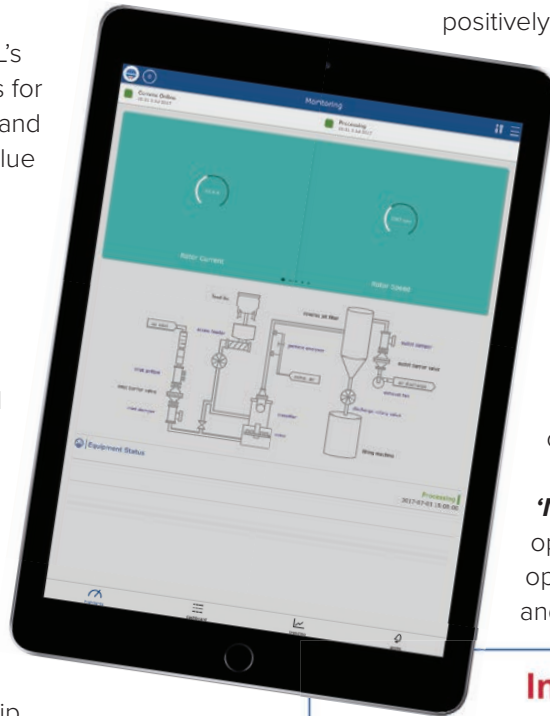
The architecture of HML's unique approach allows for processing continuous and non-continuous high-value data at three different levels: the edge (asset-level), on-premise or the cloud. The system is also flexible in that it provides both open and closed loop control options as required. Key partners in this exciting collaboration are fellow Chemicals Northwest (CNW) members and sector specialists: Siemens and Peak42. The origins of this partnership lie in a discussion about optimising digital technology for their respective needs that took place between the three companies at a CNW event focused on "Boosting Productivity", in September 2016.

Seeking to maximise the opportunities offered by "data-driven manufacturing", Hosokawa Gen4 is rapidly coming to the attention of production managers across all tiers of the chemicals sector as a cost-effective and flexible way for them to enhance continuous improvement techniques to maximise yield, reduce waste and save energy.

Global business manager for HosokawaGen4, Paul Gilroy says, "Many chemical manufacturers are aware of the new digital revolution but may fear the unknown or be unaware of how it applies to them. People often say to me "we know we have to do something, but we just don't know where to start!"

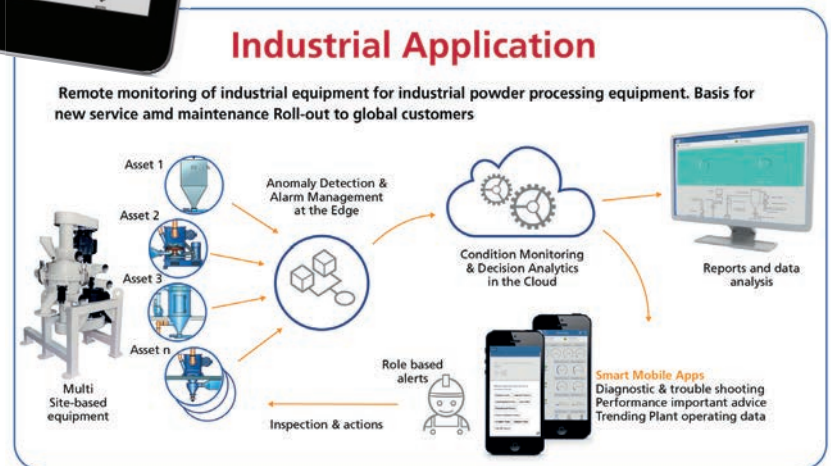
Paul states that Hosokawa Gen4's approach is to focus on understanding their customers' overall business, the processes and assets that support it, before even considering their digital strategy – which in many cases may not yet have been formalised. "Our process expertise and digital know-how provide the re-assurance the leaders of our client companies need to get the ball rolling; we are transparent in terms of the target outcomes, appropriate level of investment, quantification of payback and timeframes."

"Hosokawa Gen4 uses an app interface, via smartphone or tablet, to combine knowledge with real-time or trended operating data to add value to our customers' businesses," explains Paul. "SMEs can construct their digital strategy one step at a time, improving the performance of individual assets and building to larger-scale deployments that positively impact complete processes."



Peak42 produced the software to manage the PLC (Programmable Logic Controller) using the inputs from the plant and sending output data to the cloud. Managing director Michael Thomas says: "Peak42 is the automation technology integrator within this exciting "digital manufacturing" initiative. Combining our knowledge of Hosokawa equipment and advanced automation techniques, we are developing the systems to deliver business, operational and process benefit".

'**MindSphere**' is a cloud based open IIoT operating platform from **Siemens** which has an open ECOSYSTEM allowing users to develop and operate MindSphere Applications using open



API's (application programming interface) and software libraries. Process data is aggregated via a client PLC's or PC and transferred to the cloud using either a direct MindSphere connection or via a MindSphere connector box. Open protocols can also be utilized such as OPC UA (open platform communication unified architecture) for the connection and transfer of data making the connection for the customer as simple as possible.

Once data is being transferred the user can select various tools from the platform to enhance the visualization of the data. These include some basic analytics or event monitoring with the ability to create email alerts. Further analytical tools are available for more advanced analytics and these are being increased on a regular basis. All of this is done with security in mind. Compliance with the ISO 27001 and IEC 62443 standards make the PaaS (platform as a service) even easier to use for the customer without the need for any further security enhancements.

Ian Elsby, key account manager, chemical industry, Digital Factory & Process Industries and Drives says; “Siemens is at the forefront of this technology, developing a digital strategy for industry that allows customers to realise value from their data. The MindSphere platform allows a free flow of data from the OT to be directly used within a customer’s business management system. We understand how important asset data is to our customer’s business whether this is being used for condition based monitoring, quality or OEE, that is why processing clients prefer this platform”.

Iain Crosley concludes; “Our project is quite unique and we believe it is the best solution around at the moment. The IIoT and sensors will be vital to HML and its equipment supply business well into the

future and we are happy to share our digital experiences with other processing companies”.

The next steps for HML include; roll-out to other HM Group contract manufacturing sites and connecting to finance and sales for live scheduling, in other words a fully connected business.



Left to right: John, Alex, Kathryn Hipkins, Stuart Bryan, Paul Gilroy, Michael Thomas, Iain Crosley, James Moore

Realising that take up on digitalisation has so far been low, collectively they seek future opportunities to exploit the technology. All three companies have existing strong and proven relationships within the process sector and are confident that they work well together.

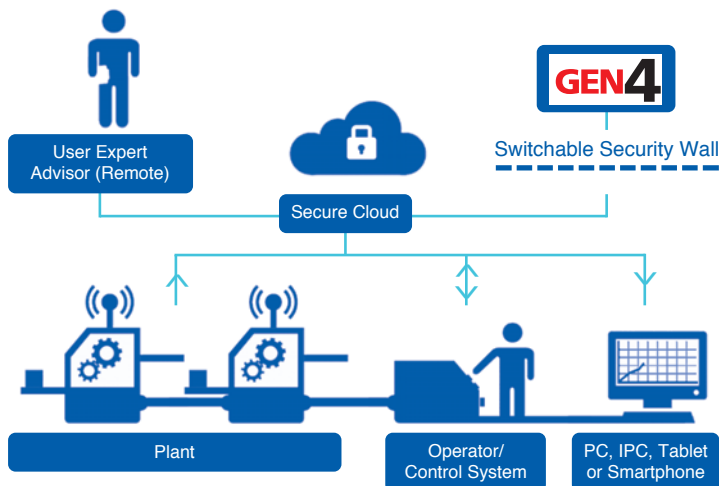
The future is exciting! This is good news for the Northwest and the UK – the rest of the world now needs to find out!



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New bridge opens

Following a spectacular fireworks display, the Mersey Gateway Bridge opened to the public at 00:01 hours on Saturday, 14 October 2017.

Rob Polhill, Leader of Halton Borough Council and Chair of the Mersey Gateway Crossings Board, said: “after three-and-a-half years of hard work I am proud to announce the Mersey Gateway Bridge is open. “It’s been a busy project which has reshaped our borough, and led to a huge amount of work across it.

“Now the project has been completed on time and under budget, it stands as an iconic, landmark structure that will help to put Halton on the map, while eliminating congestion across the borough.

“It will help make Halton a destination where businesses want to invest and families want to live. I would like to give a big thank you to everyone involved in turning our dreams into reality”.

The project features more than nine kilometres of new roads, seven junctions and 12 new bridges and an integrated traffic control information system that uses innovative smart road technology.



New Sector Ambassador for Manufacturing



Steven Lloyd from new Chemicals Northwest member Vision Consulting Group, has just been appointed to a new voluntary role as the Chartered Institute of Marketing’s first Northwest regional “Sector Ambassador for Manufacturing.”

Stephen will be encouraging the promotion of best practice marketing skills throughout the sector. The aims include building relationships and sharing knowledge with relevant sector organisations and business networks through a variety of activities.

Vision Consulting Group provides strategic planning and tactical marketing support to SME’s and large organisations in the chemicals, manufacturing and recycling sectors. Stephen is providing a free “Marketing Fundamentals” workshop for Chemicals Northwest members in February. For details and to book your place visit the events section of our website.

<https://www.cia.org.uk/chemicalsnorthwest>

New Hitachi advanced microscopy lab at Sci-Tech Daresbury

An international leading-edge technology company is creating a brand new applications lab at its UK scientific base. Hitachi High-Technologies Europe is creating the lab at Sci-Tech Daresbury to house their latest Electron Microscopes and Scanning Probe Microscopes.

Mike Dixon, nanotechnology section manager, said: “Our aim for the new laboratory is to be a demonstration facility and collaboration hub where we can undertake fundamental research, method development and proof-of-concept case studies using our latest techniques. Our advanced electron and scanning probe microscopes are widely used in the chemical industry for materials development, quality control, failure analysis and industrial forensics.”

The lab will be capable of undertaking a wide range of studies giving insights into the structural, chemical and crystallographic properties of materials. Electron microscopy offers the ability to provide more spatially-resolved chemical information than other techniques, allowing scientists and engineers to understand exactly what element is where, right down to a nanometre scale. Scanning probe microscopy offers the ability to understand and quantify the electrical, mechanical and magnetic properties of materials, also down to the nanometre scale.

The new lab is being developed in the award-winning campus’s Techspace One building which provides specialised Grade A office and laboratory space.

Mike added: “We chose Sci-Tech Daresbury because Techspace is a really flexible space and allows us to design it in the way that works for us best, and because it’s so well placed to connect into industrial and academic expertise in the north west. Our move here also means that we are adding new staff to strengthen the company’s applications and technical team, and increasing our commitment to microscopy in the UK.”

Sci-Tech Daresbury is a private-public joint-venture partnership between developer Langtree, the Science and Technology Facilities Council (STFC) and Halton Borough Council. Earlier this year it was named as the science campus making the most significant contribution to innovation in the UK at the UK Science Park Association awards.

Techspace One, itself, is a three-storey, self-contained building comprising 33,000 sq. ft. of high quality wet and instrumentation laboratories, grade A office accommodation, meeting hubs and break out areas.



Mats Eriksson (Electron Microscope Department manager, Europe Hitachi), Mike Dixon (Electron Microscope section manager, UK/Ireland)



Solutions for Global Chemical Compliance



Handling chemical products in a way that minimizes the risk to man and the environment is not an isolated local task. Companies selling their products internationally, will often face specific regulations for the safe use of chemicals in their target markets. Considerations need to take into account global initiatives and frame works like GHS, SAICM or TDG but also numerous country specific approaches for the risk management of chemical products. Knoell with its global network of affiliates and partners keeps track of the developments concerning global chemicals management and supports its clients with the most suitable strategy for their products and target markets.

Our services include, but are not limited to:

- ▶ Strategic advice on how to comply with global regulatory duties
- ▶ Identification of components that require special attention due to their hazard and risk profile
- ▶ Complete registration services for EU, Switzerland, Turkey, China, Taiwan, Korea, Japan, ASEAN countries, USA, Canada, Australia and others incl. local representation
- ▶ Complete Global Safety Data Sheet management

We have been an independent service provider for the chemical and pharmaceutical industries since 1996, with currently over 550 employees at sites within the Europe, Asia and the USA. For further information visit www.knoell.com or call us.



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New Toxic Substance Control Act (TSCA) - Adapting to Change



Much effort went into drafting and finally passing the Frank R. Lautenberg Chemical Safety for the 21st Century Act (LCSA). It's been over a year since the Act went into effect, and the US EPA (the Agency) continues to release the details of the implementing regulations.

The main driver for amending TSCA was the perception that little was known about chemicals in commerce. That perception was based on the fact that ~62,000 of the > 85,000 substances on the TSCA Inventory were added during the original Inventory compilation in the 1970's without a risk evaluation ("existing substances"). The others ("new substances") were added to the Inventory via a "Premanufacture Notice" (PMN). The PMN process includes robust risk evaluation and regulatory management components and provides the Agency with a suite of options to manage risks of new substances. The major flaw in "old TSCA" was that it was extremely difficult for the Agency to take meaningful action on existing substances.

In January of this year the Agency outlined the process for conducting risk evaluations to determine whether an existing chemical substance presents an unreasonable risk of injury to health or the environment. This addresses the primary concern that led to amendment, but due to the statutory timelines of the process it will be years until the consequences are evident. In the meantime, immediate effects are being experienced in other areas of the regulation, most notably in the PMN process and Confidential Business Information (CBI) requirements.

PMN Process

There are four concepts in the new regulation that alter the historical paradigm for new substances.

1) To allow a substance in commerce, EPA must publish affirmation that substance is "Not likely to present unreasonable risk" and provide the basis for that conclusion.

Previously if the Agency concluded that there was no unreasonable risk no further action was taken and the PMN submitter was allowed to proceed after the review period expired. Now the EPA must affirm and publish its conclusion.

2) The EPA must regulate if the substance "May present unreasonable risk" or there is "Insufficient information".

Previously the determination of unreasonable risk could be supported by a finding of insufficient information, but now a lack

of information in and of itself is sufficient basis for regulation.

3) "Conditions of Use" are the circumstances, as determined by the Administrator, under which a chemical substance is intended, known, or reasonably foreseen to be manufactured, processed, distributed in commerce, used, or disposed of.

The formal addition of "reasonably foreseen" uses has resulted in a sea change in the PMN process. While the Agency always considered other potential uses in its assessments, the primary focus of the PMN review was on the intended use as described by the submitter. Now the need to address "reasonably foreseen" uses may result in restrictions and significant delay.

4) "Potentially Exposed or Susceptible Subpopulations" who may be at greater risk of adverse health effects from exposure than the general population (such as infants, children, pregnant women, workers, or the elderly) must be considered.

Again, the type of end use has always driven different levels of scrutiny (e.g., industrial worker versus consumer). But for certain reasonably foreseen uses incorporating exposure to these populations can introduce unanticipated issues. Prior to LCSA enactment ~10% of PMN submissions were regulated or withdrawn. That percentage has increased dramatically.

*Includes Microbial Commercial Activity and Significant New Use Notices <https://www.epa.gov/reviewing-new-chemicals-under-toxic-substances-control-act-tsca/statistics-new-chemicals-review#chart>

CBI

Other than the chemical identity in human health studies the ability to claim information confidential has not dramatically changed, but the substantiation that is required is significant. Historically this was a pro forma exercise, however now the Agency is charged with reviewing 25% of all claims. It is important to understand that any public disclosure of a substance identity (including on the Safety Data Sheet of another country) would likely preclude the ability to claim the identity confidential under TSCA.

Conclusion: While it will be some time before the consequences of the existing substance review process become apparent, other changes in the amended TSCA have more immediate effects. It is important to keep current with developments as the Agency continues to establish new implementing regulations and processes.



*Author: Jeffrey Hafer, Lead Chemist
Regulatory Affairs, Critical Path Services*

Good strategy, bad strategy:

why your business strategy will probably fail!

We arguably live in times of great uncertainty which business abhors. Whether you own a business or are responsible for functions you may need to make potentially big strategic calls in the coming months.

Yet too many businesses have a weak business strategy that can lead them into failure. A recent article in Harvard Business Review reckons that only 8% of business leaders are effective at both strategy formation and its execution. Most leaders - 63% - were rated as neutral (or worse) on developing or executing business strategy. Let's unpack what can go wrong.

The strategic failure problem

What is going on to cause most business strategy to underperform?

Failing No 1: "I do what my boss showed me; after all it worked for them." Just about everyone has used a SWOT or PESTLE analysis and maybe Porter's Five Forces. But the full strategic toolkit is rather vast; one study done by Cambridge University identified over 850 strategy "2x2" models, which is both overwhelming and too many to be efficient.

Failing No 2: "The absence of analysis." In strategy formulation, we're creating choices and you need to know what the options are and have done the research to really get under the skin of the information.

Failing No 3: "Lack of collective sweat." Strategy development necessarily must bring together many perspectives from the organization to develop its strategic options. In your firm, is strategy developed by a few top managers and then announced, or is it a joint effort?

Failing No 4: "Failing to choose." A good friend of mine told me about the origination of the word decide from its Latin derivative; to "cut off". Is there simply too much going on in the organization? By not selecting and, for that matter, stopping activities creates opportunity costs and defocusses effort on the projects that really matter.

Failing No 5: "Failing to execute"... and having made those decisions about what to do, and what to stop doing, the hard work starts. Execution projects can be complicated and easily get off track but "You gotta execute!"

There is another way...

What if you could engage your business team in a lean and effective business strategy process that is rigorous and rapid? And what if it was much more likely to stick, embed and succeed? The Institute for Manufacturing at Cambridge University have developed solutions that are academically underpinned and effective with no waste of time, effort and energy.

Our intensive and structured strategy workshops typically run over four to six weeks working with the senior management team. When a business is without strategy, we advise starting with a business diagnostic. This can reveal significant gaps in the business performance that need to be attended to at once, even before any strategy is developed. Where business strategy already exists, we use a modified process to review and develop the strategy considering new information.

What are the results?

Better strategy links directly to better business results at the bottom line with twice as many companies in the best performing category using strategy tools. But also, an important result is increased engagement by staff and strategy with greater longevity.

Do you need to review your strategy?

The following questions could be helpful if you are considering a strategic review,

1. Is your strategy hindering progress or giving insufficient clarity about where to place your precious resources?
2. Do you struggle to get buy-in and alignment in the company to new business opportunities?
3. Is the pace of innovation and technology development increasing, creating a danger of being left behind?
4. Do you know where and when the new products will hit the market and are they backed up by technology acquisition?
5. Is the R&D well-aligned to your commercial objectives, or does it need better coordination?



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Quat-Chem Limited:

New owners, new products

On 20 September 2017 Alex and John visited Quat-Chem Limited at their Rochdale site to meet with the management team and catch-up on the latest developments within this growing chemicals business.

Quat-Chem Limited was founded in Oldham in 1996. For 21 years the company has established a strong position as a manufacturer of industrial chemicals and biocidal actives, for use within a diverse range of industries, from agricultural sectors to food processing and healthcare. Quat-Chem is already well-known to Chemicals Northwest, the company won five CNW awards over two years for excelling in international trade, manufacturing and operational excellence.

Six years after moving to new premises in Rochdale, where 39 people now work, the company was acquired by US-based Neogen Corporation (NASDAQ: NEOG). With an annual turnover of almost \$400m and employing around 1,500 employees globally, Neogen Corporation develops and markets products dedicated to food and animal safety. The company's Food Safety Division markets dehydrated culture media and diagnostic test kits. Neogen's Animal Safety Division is a leader in the development of animal genomics, along with the manufacture and distribution of a variety of animal healthcare products, including cleaners and disinfectants. Neogen has made 37 acquisitions since 2000, with Quat-Chem Ltd. being the company's eighth European acquisition.

Almost 12 months after the acquisition, confidence remains high across the Rochdale management team. They see key benefits through more support from the centre, whilst maintaining autonomy in operational decisions locally. Simon Broughton, Quat-Chem's production manager tells CNW: "We sense a more corporate feel about the place. The acquisition by Neogen is allowing us to be less conservative; we now have access to resources and enough financial backing to grow the business significantly."

The new owners have already shown commitment to the business through investment in new equipment and product development at the site in Rochdale. Recent investments totalling around £0.5m include: three new twenty tonne vessels, an additional automated filling line and plans for a new quality control and development laboratory facility.

As a Neogen subsidiary, Quat-Chem's global presence and its sales force have also been boosted with experienced

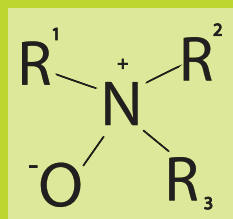


Left to right: Alex, John, Lydia Simpson, Simon Broughton, Dr Christalla Varnavas

sales managers based on the ground in the US, Latin America, China and India.

The Neogen acquisition has also helped raise new opportunities for the development of Rochdale staff. Improving performance and self-confidence is central to this and newly recruited laboratory technician Chris Orme agrees "I've been set some real challenges since joining in July and the company has outlined an exciting future at Rochdale."

Quat-Chem has also recently recruited a poultry veterinarian and promoted from within, with Dr Christalla Varnavas appointed as the company's technical manager. New leadership and specific expertise and skills-sets will allow Quat-Chem to further increase support offered to customers and boost the company's R&D activities.



AMOX 30 - The new year will bring lots of exciting new activity at Quat-Chem. This will include expanding its range of chemical substances. AMOX 30 is due to launch globally in early January.

Since 1996 Quat-Chem has specialised in the manufacture of Benzalkonium Chloride, supplying to the chemical industry around the world. Simon explains: "Amine oxide is a great fit for the site and our extensive experience in manufacturing Benzalkonium Chloride has enabled an effective synergy, incorporating a key raw material the company has successfully sourced since the '90s."

AMOX 30 is an industry standard amine oxide, chain length C12-C14. Amine oxide acts as a surfactant in household cleaners, disinfectants, shampoos and other personal care products. The amine oxide market is estimated to be in the tens of thousands of tonnes and many of Quat-Chem's chemical customers eagerly await the availability of AMOX 30. Samples are already being issued and pre-orders placed for delivery in January.

PROCESS HAZARDS INVESTIGATED

Process Safety



Process safety is a vital part of any operation but the knowledge and expertise to achieve it may not always be available in house. At Kindlow Safety Services your process safety is our number one priority. We understand that it is necessary to control hazards and potential hazards such as dust explosions, thermal decomposition and runaway chemical reactions in order to achieve safe operating conditions. Our dedicated team have decades of experience originating from industry and can provide expert knowledge and advice to support you in achieving your safe working parameters; whilst our fully equipped laboratory can provide the test data required to meet legislation.

TESTING

Our fully equipped laboratory can perform a full range of process safety testing including;

- Chemical reaction hazards
- Runaway reactions
- Dust explosion testing
- REACH
- Aerosol safety testing



CONSULTANCY

Based on decades of science and experience our experts can offer specialist consultancy and advice to assist with your process.

TRAINING

Tailored training courses designed to increase your staff's skill levels and breach any knowledge gaps.



Understanding Process Safety Management

...and having the right test data for you

A successful Process Safety Management system starts with getting the basics right. No amount of technical safety measures or operational procedures will save your plant if your power supply is failing monthly. No Risk Analysis methodology will protect you from undefined or inexact risks. If you have a poorly designed process, in the first place (i.e. erratic yield, quality or through-put), you will not be operating the originally analysed process six months down the line.

Therefore the three fundamentals of Process Safety Management are:-

- Good engineering practice
- A robust process design
- Good safety data

Once these three foundations are in place the next step is a structured Risk Analysis, to identify the known hazards so that effective Measures can be deployed to control known Risks to an acceptable level. The most popular methodology to achieve this is HazOp, although other check-list based methods are available. In cases where the hazards are exceptional or potentially wide ranging then further analysis such as QRA and dispersion modelling may be required, additionally.

There is an excellent website www.harsnet.net where these three fundamentals are examined in detail. All of the above and a suitable Management of Change System (MOC) must be incorporated into a Formal Management System (POCMARS, Plan, Organise, Control, Monitor, Audit, Review and Spot-check) in order to achieve effective process safety management.

Good Safety Data

This can be divided into two types:

1. Data related to substances

Physico-chemical properties such as; flash point, auto-ignition temperature, flammability and explosive properties, to name a few can be determined through appropriate testing. For example test data required for a dust include; Kst/Pmax, Minimum Ignition Energy (MIE), Minimum Ignition Temperature (MIT) and Layer Ignition Temperature (LIT).

The thermal stability of reaction masses can also be quantified, which may include the intermediates as well as the starting and finished products. For this an understanding of such terms as Time to Maximum Rate (TMRad), Onset Temperature, point of no return and gas evolution among others is required.

Kindlow Safety Services can help determine your testing requirements; which can then be performed in our fully equipped laboratory.

2. Data related to the chemical reaction

Data can be obtained in a range of different sets of apparatus. The type used will depend upon the data required. Such things as; Heat of Reaction, Heat Capacity, Adiabatic Temperature Rise, Rate of Heat Production, Amount of Heat Accumulation, Gas Evolution, Effect of Maloperation (runaway reactions) can be determined.

Kindlow Safety Services can provide chemical reaction hazards testing to define the characteristics of your chemicals and their safe processing parameters (Process Hazard Investigation). Our dedicated team have years of experience and skilled knowledge in chemical reactions hazards and can help you determine your Basis of Safety. Through our roots in industry our team can also give further support by interpreting the results obtained from testing to offer solutions and guidance for your process.



Taking engineering apprenticeships to a new level



Jason Phin, Digital Factory training solutions business manager

The apprenticeship levy is now with us and businesses are dealing with it in a variety of ways. Whilst some see the levy as an employment tax, others like Siemens Plc are taking a more proactive approach to enhancing their skills base.

Siemens are looking to embrace this opportunity having created an integrated programme for the development of its apprentices as well as looking at how it can enhance the skills base across its whole workforce.

Siemens Professional Education (UK) holds a national contract for running engineering apprenticeship frameworks and are a cross-divisional team ensuring that entry level talent frameworks meet business demand for qualified, skilled people and promote excellence in engineering and technology. Through a network of coordinators and training staff across the Mobility, Healthcare, Energy and Industry divisions, they can train supply chain and customer apprentices to make the supply chain stronger and forge closer ties to customers.

The company is also listed on the national Register of Approved Training Providers (RoATP). As a Main Provider they are able to deliver apprenticeship training to their own apprentices and to apprentices of their connected supply chain partners' and customers as a direct way for these companies to utilise their apprenticeship levy. One example of this external provision is their selection by Amazon to run its



Ministerial fact finding mission in 2016

Left to right: Ryan Furnival, Fergus Sykes, Juergen Maier (CEO, Siemens), Sajid Javid (Minister for Business, Innovation & Skills), Brian Holiday (managing director, Siemens Digital Factory) James McCabe, Ashleigh Sumner, Jason Phin.

new Degree Apprenticeship scheme across its various sites from the autumn of this year.

Furthermore Ofsted recently rated the scheme as 'Outstanding' (Grade 1 across all areas). Siemens also plays a key role in the development of new standards and participates in many trailblazer groups.

Siemens' own apprenticeship levy is of the order of £2.9m and its introduction has prompted the business to seek ways to maximise the benefits. Since they started running apprenticeships Siemens has run a mix of Intermediate (Level 2), Advanced (Level 3) and Higher Apprenticeship (Level 4) schemes across the divisions. The Digital Factory Process Industries and Drives (DF PD) business started out with an Advanced Apprenticeship scheme in 2010 and in 2015, reflecting the calibre of the apprentices being taken on, started running its own higher apprentice scheme, with a view to matching the aspirations of their apprentices to achieve a degree.

Working in close collaboration with Trafford College and the University of Salford to provide a 'top-up' degree, the training business (SITRAIN) within DF PD is providing industrial content through its Certified PLC Programmer accreditation, delivering 40 of the required 120 degree credits, which along with an industry based project and two modules of study at the University of Salford, will result in a BEng (Hons) in Control & Automation.

This is a new and innovative degree solution in that it can be used as part of a degree apprenticeship (currently the Level 6 standard for Control/Tech Support Engineer) or as a one year, standalone 'top-up' degree from a Level 5 qualification such as a HND in Electrical & Electronic Engineering. The first cohort of 13 learners to use this degree solution as a top-up, has just enrolled and includes current on-programme apprentices, recently graduated apprentices, internal and external engineering personnel. This underlines Siemens commitment to enhancing the skills of not only its own engineering talent, but those of its customers too.

Jason Phin, Digital Factory training solutions business manager says, "succession planning is a big part of the group's business strategy and apprenticeships is at the core of recruitment. The target this year for our Manchester recruitment was four, there were over 300 applicants!

One engineering apprentice, Fergus Sykes joined the company in 2013 after completing A Levels in chemistry,

geography and mathematics. There he started learning about the business via a rotational placement system. The first year comprised a block release at Trafford College, undertaking an NVQ level 2 qualification in 'Performing Engineering Operations (PEO)', which included units that involved learning to use basic hand tools, wiring, health and safety, with one day per week spent studying for a HNC in Electrical & Electronic Engineering. Fergus says "It was the first year of raised tuition fees, which influenced my decision not to go directly to university, instead I opted for an apprenticeship with further education opportunities".

In September he started a top-up degree at the University of Salford, where he will attend two, three-week blocks (comprising two weeks of lectures and one week study time, ending with an exam in modules for Robotics & Automation and Embedded Systems). Further training in PLC (Programmable Logic Controllers) will include a final practical assessment and complete a work based project.

Fergus is currently a member of the technical support helpdesk team, dealing with customer technical enquiries and promoting new products via events such as the Innovations Tour. Furthermore he has visited many customer sites, providing on-site support. His presentation skills have also improved through making presentations at various exhibition stands (once a total of 47 times in two days!).

All apprentices are encouraged to become STEM ambassadors and all are also encouraged to take up membership of the Institute of Engineering and Technology. Fergus has already participated in around 20 STEM engagements so far, at schools promoting engineering as a career and of course, apprenticeships as a valid route to success. 'Science busking' at events such as "The Blue Dot" event at Jodrell Bank, the final of 'The Greenpower International' event, where schools were challenged to create and race an efficient electric powered car and working on the Siemens 'Curiosity Project' at four major science festivals.

"I have gained so much satisfaction from visits to local schools, explaining for example, wind turbine design to pupils. On one occasion a young girl said that 'girls can't go into engineering' – but by the end of the day she was very engaged, even excelling".

At the heart of Siemens' culture, its core values and its wider business is; 'learning'. Earlier this year CEO Juergen Maier asked Fergus to become his 'upward mentor' and asked him and his apprentice colleagues to talk and present their projects to senior management, sending the right messages of importance and support to all employees. Fergus explains, "the level of respect for apprentices across the business has been very good. Mentoring from other staff is available and we are regularly trusted with various customer projects. Support from the company has been great, we have been encouraged to own our own career which is one of Siemens cultural values".

As with all employees, apprentices undergo performance reviews from early on. Similarly apprentices are eligible to be nominated in the Siemens in-house "Champions" scheme, whereby special recognition is given to colleagues, by colleagues. Fergus says "we are not trained for one specific job (i.e. "to be pigeon-holed"), we make our own decisions and we become 'automation engineers'".

Jason concludes; "We want the best people to work for us. We train them so they can leave, but keep them inspired to stay". Fergus adds: "the diverse work experience has been the biggest benefit, it has helped me in choosing my future career path".

The skills future is clear for Siemens. They embrace their continuous improvement culture, working better with their supply chains through encouraging apprenticeships. There are opportunities for income and added value through total value solutions.

**"the diverse work experience
has been the biggest benefit, it has
helped me in choosing my future
career path"**

Fergus Sykes - Technical Support Helpdesk Team



RISK & HAZARD MANAGEMENT



"We cannot solve our problems with the same level of thinking that created them." Albert Einstein

Understanding and facilitating the effective management of risk is our core business. Our expertise covers the full range of risk assessment and management services across:



Safety Risk



Business Risk



Environment Risk

Only when the risk facing an organisation is well understood can it be effectively managed. Key to the successful identification, assessment and management of risk is engagement with the right people, using the right processes at the right time. We believe we are different to many of our competitors and our approach is distinctive, we don't always walk the well-trodden path but look at each client's particular risk context and develop a tailored solution, working in partnership with our client.

We work across all aspects of risk, from Quantitative Risk Assessments and Predictive & Consequence modelling, through to the 'softer' risks which may affect an organisation's reputation.

Effective HAZID – it's in the psychology

In the previous edition, we wrote about making the most of hazard identification in order to facilitate effective risk management, including use of a team with an independent chair to stimulate creative thinking.

This time we explore more closely the importance of getting the right people involved in HAZID and why, in reality, this might not always be given priority. After all, if we don't identify all the risks, how can we manage them? Using a team for HAZID is important; several minds with different areas of expertise allows different perspectives to be taken into account. While this might seem like it goes without saying, in some instances hazard identification is carried out and reviewed by an ill-fitted team, whether too large, too small, with the wrong areas of expertise, or even carried out by an individual. Why though, if the benefits of team exercises appear to be so clear? Is it a matter of resource or is there a more deep seated reason to why operators might limit HAZID efforts?

One reason might be the failure to recognise the difference between actual risk and perceived risk. The perception of risk can be altered by several factors, and the result is generally that risk is perceived to be lower than it actually is. These factors include familiarity and the effect this has on complacency, the acceptance of consequences for reward (e.g. efficient operation) and the influence of choice over how we perceive danger. In the case of the operator who is responsible for allocating resources, perceived risk might result in incorrect prioritisation of risk management and a lack of focus on effective HAZID.

Within the HAZID session itself, all of these factors may affect the level of commitment of individuals to identifying hazards. It is important that those involved with the exercise are familiar with the plant and process in order to ensure that the outcomes are correct. However, the level of familiarity is a factor that reduces perceived risk and can therefore have a detrimental effect on hazard identification by either blinding people to the hazard or creating an 'it'll never happen here' culture. This may be exaggerated in a team that is too large by the concept of diffused responsibility, or the bystander effect, where there is a presumption that others in the group will assume responsibility, discouraging individuals from contributing new ideas.

The concept of risk compensation is also a factor that might lead to the focus on HAZID and risk management

slipping, both on an organisational level and during a HAZID session. On a high hazard site, personnel have constant exposure to the arrangements for risk reduction around them. For example, they receive training, work with safety systems such as alarms and rehearse emergency response scenarios as a regular part of their operational duties. Such exposure to protection measures provide a sense of security which might be exaggerated, prompting personnel to act with disregard to the actual risk.

The familiarity of a person with the subject of the HAZID is an important consideration when choosing a team and is a particular argument against allowing the factors discussed above to lead to a culture where an individual performing a HAZID is standard practise. Of course familiarity is vital, however a level of independence will discourage the participants from falling into the trap of mindless or one-sided thinking. Take for example a project manager, who has worked on the subject since the beginning, understands the topic in fine detail and has had a considerable influence over design and operation. With such a high level of knowledge and attachment to the subject, it would (understandably) be difficult to open their mind to any changes, both physically and also to how they regard their project. In HAZID, it would be difficult for an individual to think creatively and conceive of any hazards that had not been identified in the early stages of design.

There are many factors that should be taken into consideration when planning a HAZID session. The selection of participants should be deliberate; numbers, areas of expertise and level of independence should all be taken into account. A suitable team can help to avoid the concepts discussed from resulting in hazards being omitted from a HAZID exercise, and will ultimately mean the difference between risk that is actively managed and accidentally managed.



Co-authors: Jennifer Hill, risk and hazard management consultant, Carolyn Nicholls, operations director

Catalyst celebrates 30 years!

1987 saw the birth of Catalyst - The Museum of the Chemical Industry based in Widnes, Cheshire.

Thirty years on and following a name change, Catalyst Science Discovery Centre celebrated its 30th Anniversary with a fabulous showcase event to mark the occasion.

Invited guests included the Deputy Lord Lieutenant of Cheshire, the Mayor of Halton, trustees, patrons, friends, supporters, volunteers and a group of cubs from St Luke's, Widnes who had a great time mixing 'potions' in the laboratory with Catalyst education manager, Lucinda. In his keynote speech, Professor Dominic Tildesley, past president of the Royal Society of Chemistry recognised the incredible efforts of the staff and trustees and congratulated them on their 30th Anniversary. He said "Catalyst, is a celebration in itself, a celebration of the rich history and heritage of the area. Widnes and Runcorn were rightly known as the very centre of the chemical manufacturing industry in the North West. The original 'Northern Powerhouse'. And the museum here holds a unique collection that tells a very powerful story. 30 years on, of course Catalyst has evolved considerably and has a dual role as a museum but very importantly a great educational facility for the chemical sciences and related STEM subjects. With the Discovery Lab, hands-on experiments, family workshop and extra activities in the

observatory, Catalyst is more engaging and inspiring than ever before. Thank you, on behalf of the chemical science community. The RSC has been proud to support you."

Speaking about the event, chairman Bryan Davies said "It was a splendid occasion enjoyed by civic dignitaries, sponsors, trustees and staff celebrating Catalyst's 30th Anniversary. The centre continues to deliver science lessons to people from many walks of life and ages from 5 – 95. The keynote speech from Professor Dominic Tildesley highlighted the major contribution that Catalyst had made both locally and nationally as a science centre and as a repository for some amazing archive items about the local and regional chemical industry and wished the centre continuing prosperity and success in the future."

Director of Catalyst Jayne Edwards added "At our 30th Anniversary celebrations it was marvellous to see such a range of support for Catalyst in its mission to 'preserve the past and inspire the future'. The enduring support of local industry, academia, professional bodies such as the Royal Society of Chemistry and the Chemical Industries Association, Halton Borough Council, etc, is highly valued and enables Catalyst to welcome the public and schools to experience the world of science and local history."



Liability for closed landfills

Many chemicals companies will have an asset portfolio containing one or more closed landfills, which have perhaps been operated to dispose of process residues or which have been inherited from third parties through land or corporate transactions.

New case - Periodically the courts hear cases concerning historic clean-up liabilities for such sites found in Part IIA of the Environmental Protection Act. A recent case, *Powys County Council v Price & Anor* [2017], challenged certain assumptions made about the transfer of risk in the context of a former local authority landfill site.

Facts - In the early 1960s the owners of a farm in Powys allowed the local authority to create a landfill on their land for the disposal of domestic and commercial waste. Tipping continued until 1992, through a change in ownership of the farm and a local government reorganisation in 1974. Another reorganisation in 1996 brought Powys County Council into existence, and initially Powys took responsibility for the closed landfill and the leachate from it, on the assumption that it had acquired its predecessor's liability for the site.

Powys ceased monitoring and mitigation activities in 2015 following a reappraisal. The owners of the farm then sought a declaration from the High Court that clean-up liability had transferred to Powys in 1996 under the local government reorganisation legislation.

The polluters with primary liability under Part IIA would have included the operators of the landfill, namely the original local authority body and its successor from 1974, the Borough of Brecknock. However, both had ceased to exist.

The landowners at the material times were the farmers. Powys had reportedly never owned nor had an interest in the land and could not therefore be a "knowing permitter", which might have rendered it liable under Part IIA directly. As Brecknock had ceased to exist, the farmers were therefore at risk of liability.

Judgement - The Court of Appeal considered that were Brecknock to be still in existence, it would indeed bear the clean-up responsibility. However, could the precise wording of the terms of the local government reorganisation be construed to impose on Powys a liability under Part IIA which did not exist at the time of that reorganisation? The court held that it could not, and considered that very specific wording – which was not present – would be needed to do so. For example, in other legislation where this point arises, such as the Water Act 1989, the wording requires the successor body to be

expressly treated as being the same person in law as the predecessor body.

Analysis

In transactions where landfill assets are transferred, it may not always have been feasible to examine the detail of an apparent transfer of liability between previous owners. Certain closed landfill sites may therefore represent an unanticipated liability risk for the present owner.



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BPE

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At BPE, we understand the ever increasing challenges faced by our customers in relation to the design, development and optimisation of process facilities. Our experience and skills allow us to develop solutions that regularly exceed expectations in terms of safety, sustainability, operating & capital costs, and performance.

For more information, visit us at www.bpe-ds.com



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Contact us: Tel 01962 717070 enquiries@bpe-ds.com

BPE Design and Support Limited

Process engineering firm celebrates 20 years of success

One of the UK's leaders in chemical and biochemical engineering design has celebrated its 20th birthday this winter.

BPE, which specialises in process engineering, is marking two decades in business. Having started as a small consultancy, it has grown to become one of the country's most respected sources of process engineering expertise, specialising in fine and speciality chemicals and life sciences.

Now, with 20 years of experience under its belt, an enviable client base and growing team of process engineering experts, it has unveiled a modern new look.

Managing director Mike Brown, who founded the company in 1997, said: "Hitting the grand age of 20 was the perfect time for us to take a look in the mirror and give ourselves a makeover, in line with our ambitious growth plans. Despite two decades of success in business we are not ones to rest on our laurels and we are determined to be the partner of choice for the UK's talented swathe of process engineers."

The company has updated its logo in line with its 20th anniversary and unveiled a brand-new website at www.bpe-ds.com.

BPE has been helping chemicals manufacturers make their processes safer and more efficient since 1997. It offers a full range of process engineering services, including process modelling, process safety, project management and process development/scale-up support. It counts some of the UK's biggest blue-chip manufacturers among its clients.

Last year it announced an ambitious five-year growth strategy, which was kick-started with the opening of a new office in the North of England. Several high level appointments and award wins have followed, with the company picking up significant projects in the process.

Chairman Ian Shott, who was awarded The Royal Academy of Engineering's President's Medal this year, said: "BPE was founded on Mike's desire to offer a refreshing alternative to the status quo, with client relationships being open, honest and based on mutual respect. I'm proud that it remains true to that 20 years later and following significant growth. There is plenty more to come from the company in the coming years and I'm looking forward to seeing what's achieved in the next two decades."

To find out more about BPE and see its new look visit www.bpe-ds.com



GDPR regulations & cyber security – 17 January 2018, Daresbury

It is two years since Chemicals Northwest focused on data protection, business fraud and cyber crime, much has happened since.

The value of committed fraud has passed £1bn and over 5 million cyber offences are committed every year in the UK. At least 10% of the adult population reports being a victim of fraudulent online crime and latest official figures state that cyber crimes now account for over half of the total in this country.

The General Data Protection Regulations come into force in May next year and the controls required therein will go some way in enabling businesses to protect themselves. In addition our enforcement agencies are actively promoting prevention as they deal with this surge in incidents.

This programme brings together many organisations that specialise in helping businesses and individuals plan for and manage cyber security as well as comply with the new

regulations. From the legal profession through to IT and insurance providers. We also aim to focus on staff training, process safety data and e-commerce. We are also delighted to announce the chair for the day will be Dr Lee Speakman, senior lecturer at the University of Chester. Lee is also programme lead for the university's Cybersecurity Programme, including capability building in cyber security teaching, research and collaboration with industry and Government.

Please view the agenda at: <https://www.cia.org.uk/chemicalsnorthwest/Events/CNW-Events/Event-Details/eventDateId/1129>



Expansion... a trio of appointments

BPE has appointed three new members of staff as it continues its ambitious growth plans.

The chemical and biochemical engineering design firm, which has an office at Daresbury Innovation Centre as well as headquarters in the south, has taken on John Aspinall as a senior project manager.

John, a member of IChemE, has more than 30 years' experience of delivering technically complex and highly serviced projects in both the public and private sector. During his career he has led a plethora of multi-million pound projects within the life science and pharmaceutical sectors.

John said: "BPE is doing some really ground-breaking work, taking new approaches to solving process engineering challenges. That different way of working and willingness to challenge the status quo appealed to me and I'm excited to be joining such a progressive business."

Mike Brown, managing director, added: "We're thrilled to welcome John to the team. His specialisms in biotechnology, life sciences and pharmaceutical sectors, reflect the make-up of our client base and will be of real benefit to the businesses we work with."

BPE has also brought on board a new graduate chemical engineer in the form of Sam Fass. Sam, from London, studied chemical engineering at Imperial College London and said: "The design project was by far my favourite part of my degree so I'm excited to be working with one of the best process design companies in the UK. BPE has a brilliant reputation and I'm proud to call myself a part of the team."

Completing the hat-trick of new recruits is Antonios Gourdouparis, who joins as a graduate electrical engineer. Originally hailing from Greece, Antonios came to the UK to study a degree in electronic and electrical engineering at Brunel University London. He went on to complete a masters in Nanotechnology and Renewable Energy and is looking forward to broadening his skill base even further with BPE.

Antonios, a member of IET, said: "One of the reasons I wanted to work with BPE was the fact that this role involved so much continued professional development. I'm excited to be widening my knowledge even further and working alongside a well-respected team."

BPE is currently undertaking an ambitious five-year growth strategy. Last year it opened a new office in the North of England and several new appointments have been made in 2017, expanding its team of established experts. To find out more about BPE visit www.bpe-ds.com.



John Aspinall



Sam Fass



Antonios Gourdouparis

Dana - My Year in Industry and beyond...

at Surfachem, a 2M Holdings Company

As part of her chemistry degree course at the University of Huddersfield, Dana played an active role in securing an industrial placement. Dana tells us her story...

I'd gone to about five interviews, applied to 25+ jobs, and had either not heard back from some jobs, or had been rejected completely from others. By the time the stressful exam season came round, I had almost fully given up on finding a placement. That was until my friend sent me an advert from the university, about a six week summer placement at Surfachem, a 2M Holdings Company.

After applying, interviewing and meeting some people, I was delighted to be offered a six week summer job in the head office, to deal with regulatory information for the company. Even though I would have preferred working in a laboratory over summer, I knew that working behind the scenes of a chemical company would still give me an edge when it came to finding a job once I'd graduated. My first week working for the company went by quickly; I'd been assigned to the technical team and was given my first project, which included updating COSHH and product information sheets. As part of my enrolment, I'd spent time with the other teams within the company – from sales to purchasing and account managers. Everyone in the company was genuinely nice, and would always be willing to help if I came to them with a problem.

As the weeks went by I felt like an essential part of the team, so when I heard from technical director Fakhara Jones, that they were exploring a Year in Industry placement for me, I was over

the moon. My placement year was one of the most enjoyable years I'd had at university. I'll admit that at first it was daunting. The amount of products that were kept and used in the lab, as well as figuring out what did what in a formulation astounded me, but as the weeks passed I found that I could commit a lot of the information to memory.

Preparing for the SCS Formulate exhibition was one of the biggest tests of my placement year. We needed to make up about 20 different products, all to be displayed at the exhibition, within a couple of weeks. Since we were making such a large amount of products, working precisely and efficiently was essential. As my Year in Industry came to an end, we started having discussions about me coming back and working part time through my last year at University. It was an amazing opportunity. Not only did it allow me to keep up to date with projects and formulation work, but it also meant that coming back full time after graduation would be a smoother process, both for myself and the company.

Two weeks after finishing my last exams, I started working full time for Surfachem, and I honestly couldn't be happier. The experiences and relationships that I've gained throughout these two years invaluable and I hope that my journey into Formulation continues to be just as wonderful.



Dana Smith
Laboratory Development
Chemist, Surfachem

Top, Safety, Health and the Environment (SHE) Award for 2M Holdings' Compliance Director

Britain's Solvent Industry Association (SIA) has awarded David Dalton, group compliance director at Banner Chemicals and its parent company, 2M Holdings, their prestigious annual Gerald Soane Award for Safety, Health, and the Environment at their Annual General Meeting in October 2017.

The award was given in recognition of David's outstanding work on a number of Guidance Notes in the 2016-17 period and for his ever-present and ongoing commitment to the Association.

David said: "The SIA Technical Committee's aim is to



David Dalton (right) receives the Gerald Soane Award from former SIA Chairman Geoff Stamper

improve knowledge throughout the solvent supply chain and advocate the adoption of best practice when handling solvents. I am extremely pleased to be the recipient of Gerald Soane award for my work with the Technical Committee,

which is a collaborative process drawing on a wide range of expertise and knowledge from member companies."

This award follows previous recognition from Chemicals Northwest for SHE in ensuring safer packaging practices along the supply chain, in accordance with ADR regulations, which David wrote for the SIA in 2015.

Plan your CPD for 2018

IChemE is a market leader in training for chemical and process engineers and related professionals. Here are some of the courses on offer in 2018.

Download our training catalogue:

www.icheme.org/training-catalogue

In-company courses are also available.

Contact courses@icheme.org for a quote.

Personal Development and Leadership

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www.icheme.org/scientists

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www.icheme.org/distillation

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Asset Integrity Management in the Process Industries
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Comprehensive Explosion Science
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Fundamentals of Process Safety
www.icheme.org/process-safety-uk

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www.icheme.org/safety-performance

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www.icheme.org/forms-of-contract

Personal Development and Leadership

Creativity for Chemical Engineers Online
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www.icheme.org/communication-online

Effective Technical Writing Online
www.icheme.org/writing-online

Mentoring for Chemical Engineers Online
www.icheme.org/mentor-training-online

2018 Awards categories launched

The celebration dinner attracts up to 300 guests with the venue in 2018 being The Point at Lancashire County Cricket Club in Old Trafford. The Awards provide the region's chemical sector and its thriving supply chains a fantastic opportunity to recognise and celebrate the achievements of individuals and companies.

Eligibility for the awards is simple. You will be a chemical processing company, an important stakeholder or a key supplier of products or services in the chemicals supply chain. We are searching for excellence in the following categories:

1. Engineering firm of the year 2018 - Winning this award will represent the ultimate accolade for excellence in the supply of engineering products and services to this great industry. The scope is wide as we are aware of many engineering solutions that have led to success in the industry, from project management and maintenance support to process consultancy and equipment supplies.

2. Manufacturing company of the year 2018 - This award recognises how a company has demonstrated excellence in developing and bringing its products to market. It will also recognise significant operational improvements made to an established process. The winner will also have a clear plan for sustainable growth of the business and its contribution to the wider chemical industry in the region.

3. Health & safety 2018 - This award recognises exemplary practices or services that have made a chemicals operation safer or healthier. The winner will be able to demonstrate how a single, or range of, site improvements or the provision of valued expertise, has significantly contributed to the improved safety performance of a chemicals business.

4. Sustainability award 2018 - Recognition of how an organisation has demonstrated an innovative and holistic application of sustainability principles across a project and/or its wider business practice, leading to measurable positive change.

5. Operational excellence award 2018 - Successful practices in improving the efficiency and productivity of a chemical manufacturing process. The award winner will be able to demonstrate that real business improvements have been made following the implementation of a new project or operational programme.

6. International trade 2018 - Innovative approaches to effective exporting involving the latest systems and thinking. This will be awarded to a company that is new to, or experienced in, import/export and who has significantly developed their business in new markets or achieved an outstanding international trading record. This award is also open to service providers who have helped other businesses to take their international trading to new levels.

7. Innovation award 2018 - Demonstration of creative solutions that present major commercial opportunities for a business. This award is open to individual organisations or academic/industrial collaborations. The winning recipient will be able to demonstrate how they have successfully invested in the research and development of a commercially viable new product, or enhancement to an existing product, or designed/modified and implemented a process that delivers demonstrable benefits to the business.

8. Young talent in the chemical industry award 2018 - The contribution made by a young person to the success of a chemicals business or service provider. The award will also recognise the learning of vital business skills and their application in taking the organisation forward.

9. Charity of the Year 2018 - If you represent a charity which you think deserves a special recognition, or you have been involved in events through your company to do work for, or raise money for a charity, then please submit your entry.

10. Supplier to the chemical industry 2018 - This award covers a broad scope of entries and the winner could be reflected within: the provision of innovative problem solving anywhere in chemistry supply chains, or shows how a business has successfully responded to a customer problem or developed efficient transport or distribution improvements. Furthermore it may be a good news story that relates the production of chemicals to the consumer and explains the usefulness of chemicals to society.

Sponsorship Opportunities - The secret of a successful event like this is the important support we receive from our sponsors. That is why we go as far as we can to ensure value is delivered when you make such a commitment to our sector. This is an opportunity to align your company with the chemical industry and raise your profile to new levels. To find out more about sponsorship options, please contact us.

The above awarded categories are subject to change, please contact us.



The University of Chester plans to offer degree apprenticeships

What are they?

Degree apprenticeships offer a new alternative route to standard degrees and are being promoted by the Government. The idea is that apprentices are employed by their company full-time in a useful job for their business gaining invaluable on-the-job training alongside study for a degree with no tuition fees.

Where will they be run?

The University of Chester's Faculty of Science and Engineering is looking to offer the Science Industry Process/Plant Engineer degree apprenticeship at its Thornton Science Park. This standard was approved recently for process design and manufacture of chemical, biological or science based technology. This is based around the Chemical Engineering BEng degree which has recently been accredited by the IChemE and which produced its first graduates in the summer of 2017.

Why consider offering a degree apprenticeship?

Any company with a total wage bill of more than £3 million is now required to pay 0.5 per cent of this into a fund and this can then be spent on apprenticeship training. Smaller employers who do not pay the levy can still take on apprentices and get 90% of the training costs funded by the Government.

Who will do degree apprenticeships?

These will typically fall into two groups: firstly, existing employees who the employer would like to support to get a degree; secondly, new recruits to a company who may come straight from school.

When will degree apprenticeships for the North West chemical sector become available?

The University of Chester is keen to have apprenticeships running in September 2018. We have already established an implementation group which has met several times but we are looking for more interested employers to be involved.

How will degree apprenticeships be delivered?

This will be based on discussion with employers and is likely to involve a combination of day release and distance learning. Typically, the degree component of the apprenticeship will be completed on a part-time basis and the overall duration will be five years.



University of
Chester

Stockpiling, calculating tonnage & IT tools

The CNW **REACH** users group met in September to catch-up on several aspects of legislation and to look forward to the May 2018 deadline. So far there have been 9660 registrations for around 4720 substances. There are still however, some matters that companies have queries on.

Importers account for 43%, with 27% from only representatives. In terms of the deadline, it is expected that more SMEs will register before 31 May 2018, but there is a worry that some may have left it too late? With this group accounting for 15% of all registrations, UK is second to Germany by country.

Stockpiling

A reasonable amount of product stock is acceptable after the deadline, but there will need to be a clear strategy on how long will it take you to use it up? If the company stops manufacturing/importing before the deadline they would not need to register- unless they started to manufacture/ import again after the deadline in volumes >1 tonne REACH imposes registration obligations only on manufacturers or importers (and, in specific cases, on producers or importers of articles). It does not on downstream users, distributors or suppliers of substances. Therefore, the registration obligation does not apply to you if you have: a) manufactured or imported pre-registered substances before the registration deadline; and b) ceased such activities and simply acted as a supplier after that. If you have not ceased your activities before the relevant registration deadline, you must submit a registration dossier for all quantities of the substance manufactured or imported before and after the respective registration deadline. In any case, any actor down the supply chain who is not subject to the registration obligation may continue to use and/or supply quantities of the substance that you have supplied to them before the registration deadline.

Calculating tonnages

For phase in substances, tonnage is calculated on the basis of average production/import volumes for the three preceding calendar years. If the substance has not been imported during the three consecutive years, an estimated tonnage during the calendar year of the registration should be used.

The highest tonnage per year manufactured or imported after 1 June 2007 will determine the deadline for registration. However, the information requirements will be based on the three year average tonnage calculated in the year of registration.

HelpNet is a network made up of ECHA and the national REACH helpdesks and its most regular outputs is the commonly agreed frequently asked questions (FAQs). The FAQ on tonnage calculation is No 0046 and the answer has been agreed with the national helpdesks.

IT tool developments

The available IT tools are continually being updated to improve the way the dossiers are created and submitted. ECHA's Cloud service is an online platform used to distribute ECHA's IT applications in a cloud environment. IUCLID Cloud for SMEs is now available. It is designed to meet the needs of SME's in particular those who have had little experience with IUCLID. Users can work fully on a web browser with no need to download the IUCLID software. Regular and automated back-ups help reduce the risk of losing data.

Version 1.3.0 of IUCLID 6 will be updated with additional features at the end of October. The document format will be updated without impact on the verification on dossiers made for REACH.

The Report Generator within IUCLID 6 has also been updated. You can customise your saved report and use previously entered data as a starting point. Imported files can be directly accessed and two dossiers can be compared at the same time.

Version 3.2 of Chesar has three main improvements: substance properties can be edited, generation of exposure scenarios is streamlined and use map updates are recognised.



The Acta Group (Acta®): Industry's "One-Stop Solution" for Global or Local Chemical Regulatory Compliance

The Acta Group (Acta®) provides a full-range of global support services for the processes of obtaining and maintaining approvals to market industrial chemicals, biocides, and chemical products. Acta's expertise includes the European Union's (EU) Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation, Biocidal Products Regulation (BPR), Plant Protection Products (PPP) Regulation, Classification, Labelling and Packaging (CLP) Regulation, and Directive on the Restriction of the use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS 2). In addition to providing expert knowledge and services for European regulatory compliance, Acta personnel have gained a well-deserved reputation for developing and providing unparalleled global compliance solutions. Acta's worldwide expertise includes, but is not limited to, the U.S. Toxic Substances Control Act (TSCA) and Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), Korea's Act for the Registration and Evaluation of Chemicals (K-REACH), and "China REACH."

Acta knows that clients must function optimally in all jurisdictions in which they market and/or place products to remain competitive. We help them get there through our global reach. Acta partners with our clients to help them get products quickly and efficiently to market -- in any country or locale -- and keep them there when challenged by a new regulatory regime, issue, or set of rules. Acta professionals include scientists and business and regulatory consultants. Acta assists clients by managing products from concept to approval, supporting compliance in complex supply chains, and delivering skills and experience with specific product areas in government and industry. Acta's well-established global presence, organisational efficiency, and contacts in industry are substantial contributors to our continuous delivery of efficient, comprehensive, and cost-conscious services to many successful clients.

The swiftly approaching 31 May 2018 REACH registration deadline is currently keeping chemical manufacturers, laboratories, regulatory staff, lawyers, and others busy. Importantly, REACH obligations do not cease upon submission of registration dossiers. Compliance checks by the European Chemicals Agency (ECHA) and Member State Competent Authorities are ever-increasing. The possibilities of additional animal and non-animal data requirements for substances post-registration are significant. Data sharing rules and guidelines under REACH, Commission Implementing Regulation (EU) 2016/9 on Joint Submission of Data and Data-sharing in Accordance with the REACH Regulation, and ECHA's Guidance on Data Sharing require monetary reimbursements to Substance Information Exchange Forum (SIEF) participants as SIEFs grow in size and

additional registrants share data. Numerous chemical manufacturers and importers are likely to expect reimbursements from Lead Registrants following the REACH deadline next year. It is expected that ECHA will continue to make intentional and diverse efforts post-2018 in the context of REACH to improve protection of human health and the environment, and thereby require "new" efforts from the global chemical industry to improve chemical safety and reduce risk. Through over a decade of experience gained as Only Representative and Third Party Representative, and via provision of ad hoc REACH consulting services, Acta staff members in Manchester, England, are uniquely well-suited to assist companies across the globe in managing their REACH obligations after the 2018 registration deadline. Relatedly, the global dedicated Acta team is highly skilled in assisting companies in maximising the benefits of broad-based REACH-related efforts in the pursuit of compliance with similar or dissimilar industrial chemical regulations across the globe.

Innovators of biocidal products and treated articles are often confronted with the evolving, challenging, and varied requirements of BPR. The appropriate product-type for a particular creation is not always immediately apparent to manufacturers and a number of active substances remain restricted under BPR for certain products due to its phased implementation. Companies must consider the Review Program and the Article 95 List, in conjunction with their respective budgets and goals, in developing compliance and EU-wide sales strategies for their products. ECHA is imposing frequent BPR deadlines in 2017 and 2018 as part of an effort to "harmonise the market," and procedures such as Union Authorisation and Simplified Authorisation are becoming increasingly important and relevant. Currently, BPR compliance strategies often vary significantly depending upon key target markets within the EU. Acta follows BPR-related developments and jurisprudence closely, and is expertly positioned to assist companies in managing BPR compliance to maintain uninterrupted market access and business prosperity. Acta's global experience with biocides, including our longstanding FIFRA expertise, is a significant contributor to our understanding of business-oriented and regulatory issues that affect European biocides companies.

Acta has frequently received recognition from clients and industry globally for our previous



and ongoing demonstrations of excellence. Recently, Acta received the Supply Chains Award at the Chemicals Northwest Awards, hosted at Crowne Plaza Liverpool City Centre on 30 March 2017. Acta's nomination for this prestigious award was based on our work discovering, developing, and implementing creative pathways for REACH, K-REACH, TSCA, and FIFRA compliance for challenging chemical approval matters in indirect and complex supply chains. Acta's success in completing the award-winning project was influenced heavily by our sound scientific understanding, knowledge of subtle differences among worldwide regulations, and legal understanding and skill related to the development of creative, compliant strategies for managing Confidential Business Information. Acta is proud to have been held in such high regard by the United Kingdom's important and dynamic chemical industry. As always, Chemicals Northwest organised a terrific, well-attended event that attracted respected chemical regulatory and business professionals from across the country.

There are many chemical industry service providers that offer jurisdiction-specific or regional regulatory assistance and address scientific issues, but few with the depth of experience, global awareness, and understanding of the strategic business and technical requirements of complex chemical products marketed across jurisdictions that Acta provides. With multiple global offices, and with highly-experienced expert staff who have actively assessed regulatory programs and their implications, Acta is uniquely well-suited to assist innovators to monetise their creations and to support various entities to navigate complex regulatory, scientific, policy, and commercial challenges.

Acta provides to the chemicals industry a "one-stop solution" for global or local chemical regulatory compliance.

ACTA® ASIA
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Global Chemical Product Innovation and Development®



Responsible Care

Embedding human factors

The Mid Cheshire & Manchester Responsible Care cell celebrated its silver anniversary on 19 September 2017, having had its first meeting way back in 1992!

The 'hot topics' for discussion all those years ago were permits and consents; regulatory relationships; emergency response; duty of care and safety performance data. It was good to note that although many of these issues faced by the industry then are still with us, however, we have come a long way since then in their depth, breadth, complexity and understanding, leading to positive cultures and much improved performance.

Later on 8 November 2017, the Merseyside & North Wales group met to cover a similar agenda that focused on human factors. The Health & Safety Executive attended both sessions and provided a walk through of the key points in its delivery guide which was published last

year. An outline was given as to 'what success will look like' in terms of human performance, competence and procedures, along with the performance rating assessment grades and useful tips for inspections.

Subsequent discussions included the importance of embedding human factors within your organisation and systems, described as a vital ingredient to success. It was commented on that this area extends far further than behavioural safety; and once achieved the realisation that it is now part of the culture of 'how we do things around here' rather than a specialist subject.

The progress of the HSE's "Helping GB Work Well Strategy" was outlined in addition to the latest workplace fatality figures. The Environment Agency referred to their strategic review of charges and the Medium Combustion Plant Directive, which is effective from December 2017. CIA has revised its Responsible Care guiding principles.

Impacts of Brexit on chemical supply chains

CNW's Brexit group provides the opportunity for members to raise a range of opinions and insights that consider the opportunities and impacts of the whole issue. It is informal and members can treat these discussions as a supplement to their wider media exposure and consumption in finding and understanding the facts. Experts can be questioned and the group has access to the national chemicals agenda.

Stephen Le Roux, economist at Chemical Industries Association presented an overview of the European chemicals trade position, the on-going work of CIA and various options and impacts that may occur. The EU is the UK's most important trading partner, with 60% of chemical exports going to the EU and 75% of chemical imports from the EU. The chemical sector registered little appetite for leaving the EU and the exit terms and future relationship will be critically important to us. CIA's updated priorities are: tariff-free access to the single market, prevention of non-tariff barriers to trade, regulatory consistency and access to skilled people.

An important joint position between CIA and the European chemicals trade association, Cefic, calls for a continuation of a healthy and viable chemicals industry. It is believed that Brexit without a new trade agreement between the UK and the EU would be the worst possible outcome. Both organisations call for a transition period as being essential, with the least disruptive agreement in terms of customs procedures and

continued free movement of skilled labour.

The recent CIA Brexit conference concluded that there has to be a deal that would avoid disruption to inter-linked chemical industry supply chains. Overseas competitors may sense new gaps in the European supply chains and exploit them if UK supplies aren't there anymore.

Discussions also focused on the newer urgency for businesses when their one-year planning process will soon cross the March 2019 timeline. When do businesses start to plan for a "no deal"? Companies are already being asked by EU customers, to show now that they will be compliant after March 2019.

Nicky Donnelly is a political and regulatory consultant and took the opportunity to review the Brexit timeline. In addition the recent political activities were reviewed including an update on the negotiation talks. Industries need to be organised and make salient high level points, ensuring they communicate as much as they can with politicians, stakeholders and the media in EU countries. Businesses must also realise that the European Parliament has to approve any deal, although in the meantime, they have to keep on planning as usual, but can't wait forever, for a deal to be made.

RPS Group

RPS Risk is based in Birchwood, Warrington a mile from the M62 Junction 11, which provides links to the North West region. Our clients consider us to be reputable and independent fire, health, safety and risk management consultants. We employ over 65 technical staff who all share the common goal of providing cost effective and pragmatic solutions. We work with our clients to support them with their management of hazards to the chemical, oil and gas, utilities, power, pharmaceutical, FMCG, manufacturing, nuclear and defence sectors. We aim to combine our understanding of sector specific regulatory and operating environments with knowledge and experience of cross-sector good practice. Our core services include:

- Hazard identification
- Risk assessment/analysis
- Explosive atmosphere management
- Fire engineering
- BowTie analysis
- Functional safety lifecycle support
- Major Accident Hazard support

- Nuclear Safety Assessment and safety case preparation and peer review
- Defence safety, environmental, planning and design support
- Occupational health
- Occupational hygiene
- Asbestos
- Legionella

RPS Risk support all phases of an installation lifecycle from conceptual design through to decommissioning. We have successfully supported many clients with all the services underpinning their risk management and ongoing safe operation and maintenance of their assets.

By selecting appropriate techniques to complete the key steps:

- Identifying hazards
- Assessing risks
- Determining safeguards
- Review & audit

We provide a demonstration of compliance to internal and external stakeholders and have a fantastic track record with our existing framework agreement clients.

RPS

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CIEC wants your views on industry and education links

The aim of CNW member Centre for Industry Education Collaboration (CIEC) based at the University of York, is to create industry links with local schools.

CIEC delivers programmes such as Children Challenging Industry, which encourage primary age children to take an interest in STEM through classroom-led activities and resources as well as site visits to industry partners.

The team at CIEC needs our help with their current research – they need to contact as many CEOs, managers and other senior colleagues in our industry as possible to learn about attitudes towards industry/education links, even if you have no direct experience of them. By gathering this information CIEC will be able to inform the development of their own and related programmes, helping to meet the increasing need to inspire STEM employees of the future. We at CNW would like to encourage our members to complete a short survey (which

takes just five minutes to complete) which can be found at: https://york.qualtrics.com/jfe/form/SV_0DnCL2DoRYAZaPH. Once the full study is completed, a report summarising the findings will be circulated to you all. In the meantime should you have any queries regarding the questionnaire please contact CIEC directly - maria.turkenburg@york.ac.uk or pam.hanley@york.ac.uk.

With your help we can make sure our industry has an inspired and skilled workforce for the future.



Vision Consulting Group

Vision Consulting Group is a management consultancy led by Stephen Lloyd DipM. A member of both the Chartered Institute of Marketing and more recently Chemicals Northwest. Vision Consulting Group supports businesses through the classic strategic planning process. This includes conducting market research and formulating communication strategies; right through to developing value propositions for a specific and targeted audience.

The preferred model is to become a virtual member of a client's business, working on-site with senior managers in order to transfer knowledge, whilst delivering results. We believe you can only realise your ambitions by firstly understanding your current position in your specific market place. So, getting to grips with the market challenges including; your customers decision making process and where your competitors differentiate, all play a part in devising an engaging communication campaign.

Stephen has over 20 years' experience as a marketing professional managing product development and campaign delivery for both manufacturing and service brands. He is currently supporting three companies operating in the chemicals sector including a recycler, an ink manufacturer and an adhesives supplier.

Marketing is an essential management tool in any business operating in any sector. VCG is passionate about placing your brand at the heart of the business. Indeed, marketing touches every part of your organisation. Every site, every department, every employee. The Vision Consulting Group provide the strategic know-how and experience to build a strategic marketing plan that delivers your vision. We also provide specialist creative services to help you deliver focused, effective and trackable marketing campaigns.

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Note: If you require us to work with your lead agency or approved suppliers, you will find us to be objective, constructive and dedicated.



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Miltec Digital

Miltec Digital is a business growth agency, we help technical businesses grow and become more successful, it's as simple as that. As a business we have been trading for almost 20 years and now boast a team of 10 highly trained marketing professionals. Over those many years we have worked with hundreds of businesses across the Northwest and have helped a great number of those to achieve amazing results.

We are a company with vast experience and a technically based, in-house skill set. As a result of that, we focus on technical businesses such as manufacturing companies and businesses in the chemical sector. Our work in the chemical industry stems from the fact that one of our founding directors was heavily involved in the industry for over 30 years, having worked at Shell and the Scientific Civil Service, and that passion for the

sector has carried over into our own business.

We fully integrate ourselves with the businesses that we work with, taking a thorough, holistic approach to every new client. Starting with the underlying message and marketing strategy we then work with the client and promote them through various marketing methodologies such as website design & development, search engine marketing, digital marketing and branding.

Ultimately, the bespoke marketing solutions that we provide our clients with can lead to increased lead generation, brand awareness and customer retention, and as a result, the relationships we develop with our clients tend to last a number of years.



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Energy Centre at Thornton opens its doors to CNW

Another interesting CNW breakfast meeting was hosted by the **Energy Centre at Thornton** on 14 September 2017. The Energy Centre has been funded from the Cheshire and Warrington



Local Enterprise Partnership (CWLEP), who contributed £6.8m from the Local Growth Fund awarded as part of the LEP's Growth Deal. Centre manager Derek Petrauskas introduced the aims of the project in relation to the changing landscape of energy sources and supply currently in the UK. A new Intelligent Energy Systems Demonstrator will help scientists identify and exploit new technologies in the energy markets.

Dr Gavin Phillips explained how the university has organised its facilities, teaching and expertise to offer analytical services to its tenants and wider industry. As academic director of the new **Analytical Centre at Thornton**, Gavin welcomed firms to find out more about the services provided.

The first graduates from the new **chemical engineering degree** course at University of Chester received their degrees in the summer. Professor Steve Wilkinson highlighted the success of a course that has had strong input from and links with local industry. Graduates leave with two periods of industrial experience during their course and a speed dating event with prospective employers is planned for January.

Khris Budagian representing new CNW member **Dron & Dickson** described how he values the opportunity to network and why the Northwest is a key market for his company's range of engineering and technical services. The company is recognised as a market leader in the supply and maintenance of hazardous area electrical equipment and is able to offer a "one stop shop" which makes it unique within the hazardous area market. From initial concept, incorporating the latest products from the leading manufacturers with tailored maintenance solutions.

Mark Forrest of **The ATACC Group** described the vital emergency training services that are supplied to high risk industries, importantly including the chemical industry. The services are doctor-led with many bespoke and fit to specific customer requirements. The Loftstedt Report from 2011 placed the obligation of management of risks over to the employer and many sites are now using this support in major incident planning.



BakerCorp UK Ltd has a strong record in supplying temporary liquid management systems to industry. For decades it has provided equipment rental solutions to a growing number of industries such as refineries, chemical sites, oil & gas and construction, through an international network of locations. David Lakeland outlined the firm's innovative and customer-oriented culture, which is built on the dedication and expertise of its employees. 'Employees are our most valuable asset, and we've developed a diverse and knowledgeable workforce unmatched in the industry'.

Exciting times at Catalyst!

After celebrating its thirtieth anniversary recently the museum and science discovery centre is experiencing success in several funding applications. In opening the latest CNW breakfast networking meeting on 23 November 2017, **Catalyst** director Jayne Edwards highlighted its work in providing; "a unique interactive experience for all ages". Jayne reflected on the heritage features of the museum and the on-going educational activities enabling local school children to engage in STEM. In addition, delegates heard about new learning priorities, recent successes in funding applications and opportunities for northwest businesses to get involved.

Mark Donoghue and Gary Dicker listed the key benefits of using plastics within the **DHD Cooling's** design, installation and maintenance services for industrial cooling systems. They include: better chemical resistance, easily formed and shaped, lightweight and recyclability. The company also provides a range of services such as; system re-conditioning, performance surveys and improvement enhancement and project management.



Stephen Lloyd of **Vison Consulting Group** explained how businesses should understand and build their value proposition. Be clear on how your product or service

provides a solution to a problem, quantify and qualify specific customer benefits and why customers should buy from you? The company specialises in training support and helping clients develop bespoke marketing strategies. Stephen will be running a special workshop for CNW, "Marketing – the fundamentals" on 22 February 2018, which aims to help businesses get the most from their marketing strategies.

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