

A unique industry, with unique companies and unique news

# elements

## *In this issue:*

- *Stockpiling for Brexit*
- *2016 Sentencing Guidelines on profitability*
- *Strategic Roadmapping*
- *Digital Twinning*





# 2M Group of Companies

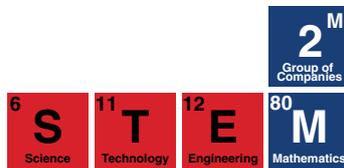
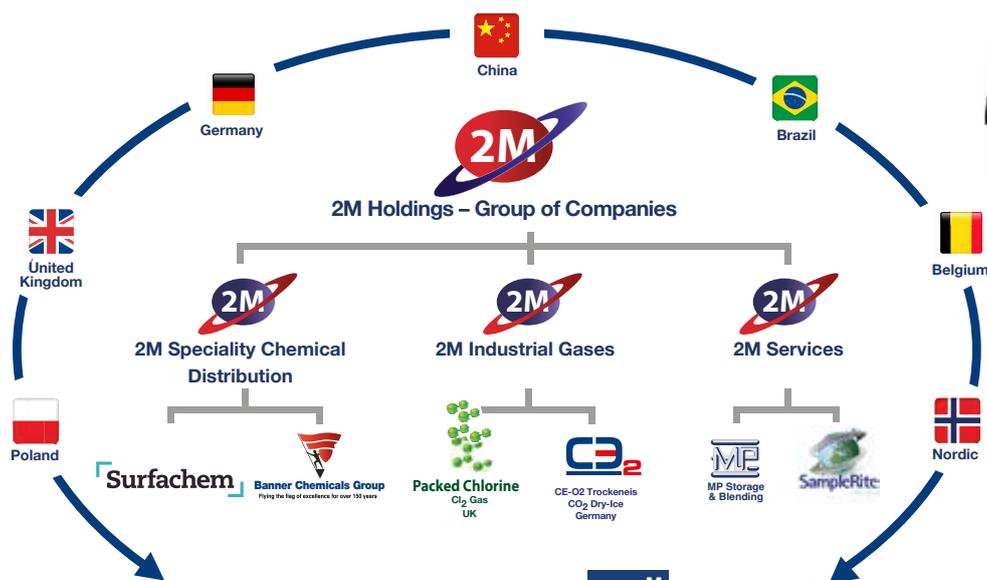
International Branded Chemical Distribution and Related Services Companies

## The Queen's Award for Enterprise

International Trade 2019

## Northern Powerhouse

Export Champions Award 2019



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RISK & HAZARD MANAGEMENT

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## Membership

**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:

**Alex Abraitis** - Member services and events manager  
alex.abraitis@chemicalsnorthwest.org.uk or visit:

<https://www.cia.org.uk/chemicalsnorthwest/Membership/Benefits-Costs/>

### 2019 - 2020 rates

Micro corporate membership (1 - 10 employees)	£434+VAT
Standard corporate membership (11-100 employees)	£755+VAT
Large corporate membership (100+ employees)	£961+VAT

*Our membership year runs from 1 April to 31 March. A pro-rata basis usually applies to joining at other times in the year and we'd be happy to discuss on application.*

# Welcome

We are delighted to “officially” launch the 2020 Chemicals Northwest Awards programme which culminates in a first-class dinner at the Hilton Manchester Deansgate on the 19th March 2020. This year we are delighted to welcome our sponsors and their guests to an early drink’s reception in the iconic Cloud23 bar to sample a cocktail or a beer, courtesy of Hosokawa Micron. We have a fantastic range of sponsors signed up so far for the awards and further details of these can be found on our website and on page 18-19 of this edition of elements magazine. We welcome all members and non-members to enter for the awards and look forward to welcoming you along in March to celebrate our fantastic industry. Deadline for entering the awards is the 24th January 2020 and we look forward to receiving your entries.

As this edition of elements was being finalised, we were delighted to partner with The Hartree Centre to bring together an event on how Artificial Intelligence (AI) and Data Science can assist with regulatory responsibilities. The write up for this can be found in the next edition of elements.

As we continue into the latter half of 2019, we thank you all for your support and look forward to working and engaging with all our members going forward into 2020. Our next series of events will be being launched in the next few weeks and as always, we welcome any feedback you wish to give and any ideas you may have for improvements.

**Alex Abraitis - Chemicals Northwest**

## About us...

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

With around 160 members we actively promote this important regional sector and our objective is to help membership to grow through;

- **facilitating** networking events, common interest groups and interactive workshops, 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.

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. Every successful business networking organisation also needs effective communications channels.

As a result of gradual development over recent years, getting messages across, promoting member companies and reporting news, Chemicals Northwest has reached new levels of topicality and quality. Here are the the main features and benefits of membership...



**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.

**"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.



**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** 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 three 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, expert insights and reports form the basis of each agenda, which will run parallel to the national work carried out by CIA.

**elements magazine** - CNW produces an informative quarterly magazine called elements which contains the latest round up of member news, specialist features and 'spotlights' on new member companies. This is a great opportunity to establish an association between your organisation and important 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. The CNW sector directory is now integrated into elements.

**Website** - Visits to the CNW website have almost doubled in the past 12 months. The website is regularly updated with industry news and the events programme. Companies are increasingly using it for enquiries and advertising. There is an efficient "e-shot" function which allows direct messaging to our contacts list. 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 provides the opportunity for chemical industry professionals to share ideas and knowledge.

**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.



# Science and Technology Facilities Council spin-out speeds up formulation with cloud-based platform

Formulation encompasses many industries from eco-friendly cleaning products and fuels, to more sustainable crop protection products and breakthrough personal care products. Developing such formulations requires the mixing of ingredients to give certain characteristics, with analysis of the microstructure to determine how and why it functions. At present, these analysis processes, such as neutron scattering, are lengthy and costly for lab technicians to carry out.

For chemical manufacturing companies, incorporating a rapid cycle of developing and testing to improve product formulations is critical against a tough, highly competitive market environment. To understand the impact of ingredients on formulations more quickly and efficiently, a high performance cloud computing platform has been developed by Formeric - a spin out of the world leading expertise and supercomputing technologies of the Hartree Centre, part of the Science and Technology Facilities Council (STFC).

Accelerating the production of a lab technician by increasing their experimental output, Formeric's cloud-based platform puts supercomputing into the hands of manufacturers to develop new products, with no supercomputer specialist required. The platform application enables manufacturers and formulation chemists to use the latest high performance and cloud

computing technologies to accurately predict the behaviour and structure of different concentrations of liquid compounds. It will also show how they will interact with each other, both in the packaging, throughout shelf-life and in use. It means that a single simulation can be requested in seconds, helping researchers to plan fewer and more focussed bench experiments, and ultimately reducing time to market.

The Hartree Centre, located at STFC's Daresbury Laboratory at Sci-Tech Daresbury, was set up to transform the UK industry through high performance computing, data analytics and artificial intelligence technologies. As well as supporting companies like Formeric with digital technologies, start-ups and SMEs can also utilise laboratory and office space and specialist business and scientific support available at Daresbury Laboratory to aid the development of innovations. From advanced engineering and digital manufacturing facilities to biological and wet chemistry laboratories, there are many state-of-the-art capabilities and expert scientists that early-stage companies can take advantage of to help grow their business.

Home to start-ups, SMEs, corporates, scientists, engineers, and universities, Sci-Tech Daresbury is a hotbed of exciting and inspirational activity. Find out more about the support your business can receive through STFC by visiting <https://stfc.ukri.org/innovation/>, following on Twitter [@STFC\\_B2B](https://twitter.com/STFC_B2B), or emailing [innovations@stfc.ac.uk](mailto:innovations@stfc.ac.uk).

**For more information on Formeric's platform please visit <https://formeric.co.uk/>**

## XCELLR8 launches new highly sensitive animal-free test for skin mildness

XCellR8 - the only safety and efficacy testing lab globally to make its tests entirely animal-product free - has unveiled its latest ground-breaking model for predicting mildness to skin.

The new test uses cutting edge cell culture techniques to detect subtle differences in even the mildest of products or ingredients, providing a classification of Non-Irritant, Very Mild, Moderate to Mild, Moderate or Strong/Severe.

In a two-year project funded by Innovate UK, the new in vitro mildness test was validated against human volunteer trials, with the in vitro data accurately predicting the rank order of human in vivo clinical scores in all studies, finally allowing brands to determine 'how gentle is gentle.' Producing results in as little as six – eight weeks, the XtraMild Test will enable companies to use credible scientific data to support their mildness claims.

The new test uses an adaptation of a regulatory skin irritation test, where subtle differences between mild and ultra-mild formulations can be measured by their ET50

score. This in turn allows a series of products to be placed into rank order of irritation potential (and therefore mildness). It provides a quick and cost-effective pre-screen, prior to human volunteer studies, driving key decisions in formulation development and providing valuable comparisons with industry benchmark products.

Results acquired from the research project demonstrated how soaps performed against facial cleansers, and revealed how one brand's soap was much milder than its equivalent facial wash and how some mass market soaps are in fact milder than more expensive equivalents.

The test is commonly used to assess new baby formulations such as shampoos, foam baths and body washes, providing critical insights into the mildness of the product and comparisons with leading brands. It is highly relevant for a wide variety of other formulation types including facial soaps, cleansers and other skincare items. The ET50 test can also be applied to cosmetic ingredients, such as assessment of the mildness of novel "mild" surfactants against classic surfactants, replacing the traditional tests which often lack relevance and the required level of sensitivity.

Dr Carol Treasure, CEO and Founder of XCellR8 commented on the latest innovation to come from the company:

"Our company ethos to provide world-leading science with world-leading ethics really shone through with this project. Existing tests for mildness aren't accurate as they were designed for irritant chemicals rather than today's gentle cosmetic ingredients, and were benchmarked against unreliable animal data. In developing a new more sensitive test, we have been able to prove that *in vitro* test results are as predictive as human volunteer trials as part of the project design. We no longer need to be dependent on out of date animal data as new *in vitro* techniques provide such a good model of real-life exposure.

The research project also allowed us to look at the differences in facial cleansers and soaps in the current market place – and highlighted the mildness of many soaps, ultimately allowing the consumer to choose a product that is as mild to their skin as a facial wash whilst being more sustainably packaged.

The beauty of XtraMild is that it can bring together R&D and marketing, as formulators can now help marketing teams provide solid evidence for their mildness claims."

More information on the test method can be found here <https://x-cellr8.com/site/wp-content/uploads/2019/09/CT-05901-0819-XtraMild-to-Skin-Test.pdf>

XCellR8 is an exclusively vegan laboratory and provides entirely animal-free safety and efficacy tests to the cosmetics, personal care and chemical industries. Already trusted by leading cosmetic and chemical companies around the world, the company does not use serum, tissues or antibodies extracted from animals. For more information : <https://x-cellr8.com/mildness>

**For further information, please contact Sarah Knight at Mash Communications on tel: 07968 005501 or email [Sarah@mashcommunications.co.uk](mailto:Sarah@mashcommunications.co.uk)**

## Taking the sting out of mildness testing

FOR FORMULATORS & BEAUTY BRANDS

**XCellR8**  
Redefining testing

**91%**

Is the number of consumers in developed countries who report that their skin experiences uncomfortable symptoms like tightness, dryness, itching, burning or redness.

SOURCE: LANCÔME

**1 in 5**

respondents said that when they were buying colour cosmetics, the product feature of 'not tested on animals, cruelty-free and / or 100% vegan' influenced their decision to buy.

SOURCE: EUROPEAN CONSUMERS LIFESTYLES AND BEAUTY SURVEY 2019

**37%**

Consumers who avoid daily life skincare products due to skin reactions.

NATION'S HEALTH & CARE RESEARCH 1990-194 HEL

**69%**

of companies we surveyed want to see new *in vitro* efficacy tests for mildness to skin, as they compete to meet consumer demand for ever milder products which have not been tested using animals or animal products.

**2 YEARS**

Is the time it took to complete groundbreaking research on a new predictive animal-free mildness test, and validate it against human patch tests.

Working with Innovate UK

### Comparing the mildness of: 3 face mask formulations

	In vitro irritancy classification				In vivo clinical results			
	B>	A>	C		B>	A>	C	
ET50 Score	12.86	14.42	>48		Irritation score	11	5	2
<small>The higher the ET50 score, the milder the product.</small>			<small>The lower the irritation score, the milder the product.</small>					

Having first used surfactants to understand the correlation between *in vitro* and *in vivo* methods, face masks were tested next because they stay on the skin for longer than soaps or facial cleansers. Face mask C was measured to be the mildest out of 3 already very mild formulations, with the *in vitro* data accurately predicting the rank order of human *in vivo* clinical scores in all studies. The research established that the XtraMild *in vitro* test detects subtle differences between a wide variety of ultra-mild ingredients and formulations, making it a useful pre-screen as well as providing credible and ethical scientific data for mildness claim support.

### Using the XtraMild test to benchmark soaps and facial cleansers

- Highly sensitive results show micro differences in levels of mildness for the first time
- Mildness of soaps can be compared to facial cleansers, to reassure consumers who want less plastic packaging without affecting performance
- Mass market best-sellers can be compared to luxury brands
- Mildness of soap vs facial cleanser within the same brand family can be compared

XtraMild is relevant for many types of formulation

Moisturiser

Shampoo

Shower gel

Deodorant

Bubble bath

Sunscreen

**Further reading:**  
Download the full report or read the XtraMild info sheet  
[www.x-cellr8.com/mildness](http://www.x-cellr8.com/mildness)

**XCellR8**  
Redefining testing



RISK & HAZARD MANAGEMENT

*"No problem can stand the assault of sustained thinking."*

*Voltaire*



Safety Risk



Business Risk



Environment Risk

## Safety Risk

Our safety risk assessment and management expertise covers risk identification techniques such as HAZIDs and HAZOP, predictive modelling advice and the facilitation of risk management techniques, particularly in the demonstration of 'ALARP'.

The area of Control of Major Accident Hazards (COMAH) is a particular specialism within the company. We support over 70 of the Upper Tier and Lower Tier sites in the UK, and have developed the Pre Construction Safety Reports for the majority of the new large industrial developments in the UK over the last 10 years.

We have the full range of expertise to develop Safety Reports for new developments or revisions for existing sites. We also provide training and development in process safety and COMAH, which is tailored to suit individual organisations' needs.

# When is the right time to assess risk?

It is well understood that risk is a two-dimensional concept. We cannot understand risk if we do not have the means to predict the consequences of an incident, or the likelihood at which it might occur. What is not quite as well considered, however, is when exactly in the hazard assessment process we should be trying to put a number on these parameters.

Hazard identification exercises, including HAZOP studies, are designed to determine where there is potential in a design or operation for an issue to occur. It sounds obvious that the purpose is for identifying hazards, but often the lines get blurred and these studies include some sort of assessment of the 'how bad' and 'how often'. Although there is no requirement to assess each of the hazards identified by these studies, some sort of prioritisation will often be carried out, as even high-level risk assessments at this stage can allow operators to understand what hazards they should focus their attention on. How accurate can we really be when assessing risks at this stage?

A lot of the time, a risk matrix is used to determine the severity and frequency of the events identified during the HAZOP or HAZID. While severity is a relatively easy concept to perceive and to assign broad categories to, frequency is a more abstract concept and the more unlikely the event, the more that any judgements become a 'guestimation'. It would be considered reasonable to make a judgement on the frequency of events where we have personal experience, most likely the higher frequency incidents such as slips and trips. How can we begin to make a reasonable judgement for low frequency events such as major hazards, though? Thankfully, very few of us will experience these in our lifetimes, but lack of experience can result in wildly different subjective judgements about their likelihood.

No matter how fine or coarse the categories on a risk matrix are, they will always require an estimation, which could be orders of magnitude out. The consequence of this could mean that the risk is either underestimated, with insufficient control measures being implemented, or overestimated, leading to resources being focussed in the wrong places.

This isn't a new idea, and often it is the case that we don't consider any kind of frequency prediction for the sake of action prioritisation. Consider how long you have deliberated over the likelihood of low frequency events that have been identified in HAZID or HAZOP studies, only to ignore the end result. So, when is the right time to carry out a risk assessment?

Rather than employ a one-size fits all approach during the HAZID or HAZOP to each hazard that has been identified, they can be screened by taking a tiered approach, and resource can be more appropriately allocated to risk assessments.

By starting at a high level, using judgements made on severity alone, the low risks can be identified with some confidence, and the list of events requiring assessment outside of the HAZID or HAZOP can be refined. Depending on the magnitude of the severity, a semi-quantified method might be employed. Techniques such as LOPA can use a set of rules to allow an estimate of frequency to be made.

For the events with the highest magnitude consequences, it is appropriate to carry out a fully quantified assessment in order for us to understand detailed risk. Predicting frequency is complex and based on databases of historical failures and complex calculations which also comprise of conservative assumptions. It is worth carrying out this screening phase to avoid any spending unnecessary time and resource on the wrong events.

In using this approach, the HAZID and HAZOP study remains used for its purpose, and little time is wasted quantifying events where it would be considered disproportionate.

**Carolyn Nicholls & Jenny Hill**  
- [enquiries@ras.ltd.uk](mailto:enquiries@ras.ltd.uk)



## Stockpiling for Brexit

As businesses try as best they can to prepare for the potential consequences of Brexit, some are stockpiling supplies to understandably try to mitigate the impact of delays as a result of increased border checks.

However, it's important that businesses ensure that their insurance programme is keeping pace with any changes to stock sums insured by keeping in touch with their brokers.

The volatility around Brexit means that stock values can increase as the cost of replacement materials & products increase even without volumes changing, so it's good practice to ensure you're aware of how your actual stockholding exposure might differ from the amounts you're insured for.

Some policies automatically include a buffer for such eventualities (and the Policies we provide via Pen Hazardous Goods & Environmental include a stock fluctuation clause that protects you against volatile pricing for an event like Brexit up to a maximum of 15% as standard) but even then, it's wise to double check.

Other factors to consider are where you might store this extra stock. If you're using third party premises (even if it's a neighbouring property on the same estate) then your insurers might not provide indemnity in the event of your stock being stolen or damaged.

Stock kept in the open is often also excluded (or cover is limited) so again, it's worth checking with your brokers as to what you're covered for.

Similarly, if you're keeping stock in open-sided buildings, or buildings of non-standard construction, then there might be issues with indemnity, so it's prudent to get clarity.

Some policies also have conditions around how close stock can be kept to buildings, so in the event of a

fire, you might be covered for either the stock or your buildings, so again, get some unambiguous guidance from your brokers and/or insurers.

Changes to storage processes can also lead to new risks being created – both from a site safety perspective (unsecured drums double-stacked on pallets to maximise storage on a limited footprint) and an operational perspective (products stored in locations where employees are used to different products being kept there), so any potential changes to your storage processes should be assessed prior to implementation, and those changes communicated clearly to staff.

The latter really can go badly wrong – a recent incident occurred following some changes on site, where an IBC containing acid was stored in an area where alkali products were usually kept; the wrong chemical was used and the resulting chlorine gas cloud damaged both the site and neighbouring property, and costs are likely to be in excess of £500,000.

On top of all this, as a company director, you could be pursued by the HSE if any incidents cause injury as a result of insufficient planning, and if that happens, even the best insurance policy can't stop imprisonment.

**for further information contact  
[Karl.Jones@oamps.co.uk](mailto:Karl.Jones@oamps.co.uk)**



# The impact of the 2016 Sentencing Guidelines on profitability for manufacturers and contractors – what to do and why

## The legislation

On 1 February 2016, the Sentencing Council's Definitive Guideline for Health and Safety Offences, Corporate Manslaughter and Food Safety and Hygiene Offences (more commonly referred to as the 'Sentencing Guidelines') came into force in England and Wales.

The purpose of this legislation is to be sufficiently substantial to have a real economic impact which will bring home to both management and shareholders the need to comply with health and safety legislation. The starting points for fines can be as much as 10% of turnover for organisations found to have very high culpability. Organisations cannot insure themselves against these fines.

These guidelines have resulted in an escalation in the level of fines being handed down by the courts. With some of the largest businesses receiving fines of many millions of pounds. Smaller organisations have seen fines double from an average of £20,000 to over £40,000.

## Culpability

The new sentencing guidelines determine the size of a fine based on company turnover as well as factors around culpability and the risk of harm (important point – not just actual harm).

Here are the descriptions of the different levels of culpability:

**Very high culpability** - *Deliberate breach of or flagrant disregard for the law*

**High culpability** - *Serious and/or systemic failure within the organisation to address risks to health and safety*

**Medium culpability** - *Systems were in place, but these were not sufficiently adhered to or implemented*

**Low culpability** - *Failings were minor and occurred as an isolated incident*

## What business leaders can do

What is also clear from the descriptions of culpability are the key actions leaders can take:

- Demonstrate effective safety leadership
- Ensure the Health & Safety Management System is effective

Effective Safety Leadership means:

- The Board should set the direction for effective Health & Safety management.
- Delivery depends on an effective Health & Safety management system.
- Monitoring and reporting are vital.
- The Board should receive both specific and routine reports.
- A formal boardroom review of health & safety performance is essential.

An effective Health & Safety Management System means:

- Write a Health & Safety policy
- Control the risks in your business
- Consult your employees
- Provide training and information
- Provide the right workplace facilities
- Make arrangements for first aid, accidents and ill health
- Display the health & safety law poster
- Get insurance for your business
- Decide who will help with your duties
- Keep up to date

## Increasing profits

Effective Safety Leadership and an effective Health & Safety Management System will support higher profitability by lowering costs. These include:

- Reduced numbers of claims leading to significantly lower insurance premiums
- Lower culpability reducing the starting point for any fines and penalties
- Lower risk of harm reducing potential for fines and penalties

Sales growth opportunities become available because, increasingly, the leaders in higher-risk market sectors only want to do business with suppliers and contractors that can demonstrate effective health & safety management systems.

Market leaders want to protect their profits and also their reputations.

In addition to cost and service, higher-risk sector market leaders are now adding demonstrated compliance to their list of criteria for those companies wanting to become a supplier or to remain on the list of approved suppliers.

## Conclusion

The purpose of this legislation is to be sufficiently substantial to have a real economic impact which will bring home to both management and shareholders the need to comply with health and safety legislation.

The starting points for fines can be as much as 10% of turnover for organisations found to have very high culpability.

In higher-risk sectors, in particular, demonstrated compliance is becoming a commercial differentiator.

Those that can adapt to the impact of this legislation will prosper and enjoy increasing profitability.

**Jim Smith – ACJ Risk Solutions Limited,**  
[jim@acjrisksolutions.com](mailto:jim@acjrisksolutions.com)

# Greater Manchester recruitment company breaks stereotype

Recruitment Agency purchases office of former employer and is welcomed with open arms.

- Recruitment Directors establish leading recruitment agency following resignation from a global market leader.
- Agency owners purchase new premises previously belonging to former employer.
- Owner of global market leader and former employer is the guest of honour at office opening party in celebration.

Over 25 years ago, Nick Bradley began his recruitment career in a local, SME recruitment agency at 11 Ambassador Place in Altrincham. He was joined shortly afterwards by his now business partner, Lee Knowles. During their time at Ambassador Place, they saw the business become a global company with over £650m turnover whilst being schooled with a set of business minded values and knowledge that they still hold to this date.

Now, Nick and Lee are founders and owners of Adepto Technical Recruitment. Established in 2015, Adepto have grown to a £10m turnover business in just four years. A size similar to, at the time, the business in which they began their careers in recruitment.

As part of their aggressive growth plan, they have now gone full circle and purchased the very office at 11 Ambassador Place where their journey began. Former boss, Geoff Lloyd, was the guest of honour as the Adepto team hosted clients, candidates, former colleagues, friends and family at their official office opening party on the 17th September 2019.

Nick Bradley, "When we started off in recruitment, this is where we started. We were schooled here in this very office as business minded people. Now, we are looking to bring in like-minded people,

from local graduates to senior consultants, to share this journey with us.'

Moving from a small, 800sq ft office to their new 2,500sq ft big enough for a team of 40-50 people, Adepto have grown from a small business to a team of 13 in the last four months.

Together with fellow Directors, David Arnold and Robert Collier, Nick and Lee are now looking to instill the same values and beliefs they have carried with them throughout their careers in to local people and give others the chance have a career in recruitment. The directors at Adepto see recruitment as a career. Doing things differently in recruitment, Adepto invest heavily in to internal and external training and development of their people, looking to shape the future leaders of the business and the industry.

Adepto Technical Recruitment Ltd is a specialist engineering, manufacturing and scientific recruitment consultancy that focuses upon the provision of permanent staff and contract resource to the UK and European Chemicals, Life Sciences and Highly Regulated Markets.

**For more information on this story, please contact George Bristow from Bristow & Hardy ([www.bristowandhardy.co.uk](http://www.bristowandhardy.co.uk)) on 0161 885 3770 or Nick Bradley and Lee Knowles from Adepto Technical Recruitment on 0161 989 3344.**



Left to right: David Arnold (Director), Lee Knowles (Director), Geoff Lloyd (Former Employer), Nick Bradley (Director), Robert Collier (Director)

# Energising manufacturing with smart finance

Mark Kelly, Project Development Director, Distributed Energy Systems (DES), Siemens and Mark McLoughlin, Key Account Manager - Siemens Industries and Markets, Siemens Financial Services (UK) examine how smart financing is enabling manufacturers to invest in energy optimisation without the need to commit capital.

UK manufacturers currently spend more than £8 billion per year on electricity and gas, with electricity prices set to rise. Meanwhile, in a bid to render processes 'cleaner' by reducing reliance on fossil fuels, manufacturers are increasingly moving towards electricity-driven equipment and technology. The result is a growing reliance on an increasingly expensive resource meaning manufacturers need to carefully consider how they are currently deploying energy resources.

In this climate, manufacturing companies, and those in high-energy-intensive industries in particular, could benefit significantly from energy optimisation. The increased adoption of flexible, decentralised, and renewable energy generation strategies - estimated to reduce energy costs by up to 55% - was clearly highlighted by the UK Department of Business, Energy and Industrial Strategy in the Clean Growth Strategy for its positive potential. One key agency's work with a group of mid-energy intense industry sectors identified energy and carbon emissions reduction averaging 29%.

Digitalisation of the manufacturing environment, while not essential for some areas of energy optimisation, greatly helps to improve monitoring, analysis and optimisation of energy generation, energy waste reduction and recapture, energy transmission, and energy usage efficiency. Many manufacturing firms are using the considerable savings from improved energy management to subsidise digital transformation, improve competitive positioning, develop innovative products, implement marketing initiatives, enter new markets, or other business-generative activities.

Overall savings on a manufacturing site from energy efficient equipment upgrades, onsite energy generation and efficient microgrid transmission are typically in the region of 25%-40%. Across the manufacturing sector, this could represent billions of pounds in savings – funds industrial companies could be re-investing or returning to shareholders.

To enable and incentivise energy optimisation programmes, innovative financing methods are being deployed. These financing methods regard energy savings as a source of funding – to effectively pay for the conversion to optimised energy generation, transmission and consumption over a given period. The beauty of these schemes is that they eliminate the main obstacle to smart energy conversion – i.e. the need to raise and commit scarce capital which is under pressure to be deployed elsewhere.

Increasingly, CFOs are looking for ways of paying for outcomes – in this case energy savings from optimised generation, transmission and efficiency, along with resilience against disruptive power 'outages'. In the case of smart manufacturing, this is leading to the rise of a concept called 'Energy-as-a-Service' – sometimes called 'servitisation'. Manufacturers are conserving their capital for growth and business development initiatives and choosing to let integrated technology-service-finance companies fund the digital transformation of their factories, plant and production sites. There are a variety of modern financing models available, with the most attractive option offering low or zero-net-cost for the manufacturer from smart solutions partners.

With corporate responsibility high on the agenda today, the opportunity to radically reduce industrial energy usage is important. Prioritising capital spend on energy optimisation (over other immediate business pressures), however, remains a stumbling block for senior management. New financing models – which harness future energy savings and use them to finance current energy-efficiency investment – are now removing this obstacle. Such Energy-as-a-Service schemes remove the need to find capital funds and offer energy optimisation transformation at no additional net cost for the manufacturer.



Mark Kelly, Project Development Director, Distributed Energy Systems (DES), Siemens



Mark McLoughlin, Key Account Manager - Siemens Industries and Markets, Siemens Financial Services (UK)

# Any road will take you there: Strategic Roadmapping for the destination you need

- Simon is a VP of innovation for a large plastics manufacturer supplying the rail sector and is charged with building new momentum into the product pipeline in the next 7 years. But the link between new technologies and the commercial gains are unclear.
- Gillian is a commercial director in a growing SME in the chemicals sector and is seeking new growth options, new chemical technologies and applications. Being able to clearly articulate the commercial gains with R&D programmes will help create buy-in from the board.
- Anna runs a company innovation centre looking into new composite materials. To engage existing and potentially new users of the centre she needs to describe the vision and opportunities to boost new signings and realise the potential of materials.

## The Challenge of Making the New

Companies are frequently looking for growth, innovation or productivity gains to enhance their prospects over the longer term. Unfortunately, more strategy fails than succeeds; according to Paul Leinwand in Harvard Business Review over 90% of strategy fails to some or a great extent because of poor analysis, insufficient belief and a failure to execute.

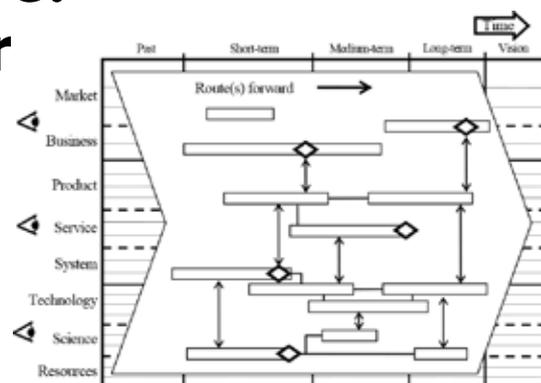
## Can we as business, innovation and policy leaders do better?

Many readers might be familiar with or already using roadmapping. Pioneered by Motorola in the 1980s strategic Roadmapping is a powerful solution to these challenges. Whether it be developing a product technology pipeline or a corporate innovation strategy, roadmapping as an effective choice.

## The Essential Concepts

While roadmapping is a process of strategy development, the roadmap is the output which takes the form of a highly visual connected graphic. But this simplicity in the outcome underplays its rigour in development.

A roadmap seeks to make explicit the key information and organizes that information in a structured way. The external perspective: what are the trends and drivers affecting our markets? The Internal perspective, what are the technologies, projects and resources we need to deliver new products and services? And showing how we can Know Why, Know What, Know How and When we need to deliver. Strategic Roadmapping is a good tool for a number of reasons. First, the process of roadmapping brings together all the current knowledge, people and needs and assembles it into the product we call the strategic roadmap. Second,



the roadmap itself is important because it represents the plan the company needs to execute – already, we’re dealing with that problem of strategy failing. A second, perhaps more important outcome, is the engagement of the people involved. Bringing technical, operational and commercial functions together to co-create the strategy is part of the strategy-planning challenge. Roadmapping workshops are highly social ways that engage the brain and the heart which can be highly motivating. Third, building strategic planning capability is a core skill and in rapidly changing world where the volume of data and technology choices are rising rapidly, we must ensure that precious resources are deployed on doing the right projects.

## What are the Results?

Clearly, a very important output from roadmapping is the roadmap itself. Roadmaps come in different forms depending on what they need to do. For a product-technology plan, the map will show the key elements and the linkages between them. The roadmapping sponsor may also choose to produce a simplified graphic for wider communication. In the case of a sector or regional map, there may be more graphical design, almost pictorial.

A second result is enhanced engagement and better strategy with greater longevity. And better strategy links directly to better business results right at the bottom line. Twice as many companies in the best performing categories use tools like roadmapping.

## Do you need a Strategic Roadmap?

The following questions could be helpful if you are considering getting into roadmapping,

1. Do you know where and when the new products will flow out into the market and are they backed up by technology acquisition?
2. Is the R&D well-aligned to your commercial objectives, or does it need better coordination?
3. Do you struggle to get buy-in and alignment in the company to new innovation activities?

**Please contact IfM's Industrial Associate in the Northwest, Rob Munro to discuss your technology and innovation management objectives, Email [rjm240@cam.ac.uk](mailto:rjm240@cam.ac.uk) or call +44(0)7896 128 878**

# Powering the future of STEM: SRG and SRG Woolf become one

SRG are pleased to announce that market leading SRG (UK) and SRG Woolf (US) have merged to become a single, leading global STEM talent network: SRG.

As a global specialist STEM staffing business within the Impellam Group portfolio, this exciting change positions SRG for continued growth through reach and scale, local knowledge and specialist expertise to support its candidates and clients globally.

"I am proud to be leading an international business of

truly amazing individuals to even greater heights. Bringing together SRG and SRG Woolf to share a common goal and purpose will accelerate our position as a leading STEM recruitment specialist." Kelly Morton, Managing Director, SRG.

SRG creates meaningful connections that empower individuals and businesses to shape tomorrow's world. As scientists, engineers, clinical research and recruitment experts, SRG is uniquely positioned to support a full spectrum of roles and talent solutions across STEM industries.

## SLR acquires HFL Consulting Ltd

SLR, a global leader in environmental and advisory solutions, has acquired Manchester based HFL Consulting Ltd., a forerunner in sustainable Process Safety Management services, combined with proven business improvement capabilities.

HFL's team will build on SLR's existing capability. They provide a unique blend of leadership, management, consulting, engineering and training services, that makes them the natural partner of choice for businesses of all sizes across the process industries, including those in the oil and gas, chemicals, polymer, pharmaceutical, healthcare, waste and allied industries. HFL deliver a comprehensive set of services to promote safety and efficiency in design, operation, maintenance, modification and decommissioning of complex hazardous facilities. In addition, the team also delivers training courses across a number of different platforms.

The team will join SLR's Europe business, led by Alan Edwards, which will now be 450 strong with 22 offices.

Neil Penhall, SLR's Chief Executive said "We are delighted to bring HFL's capabilities into SLR. We believe the team's complementary technical offering and market leading reputation will help us to progress our growth plans and continue to provide world-class solutions and advice to our clients."

Julian Hought, HFL's Managing Director, added "We feel we have found a superb fit with our and SLR's service offerings and look forward to being part of a comprehensive, integrated team"

*Please visit [www.hflconsulting.uk](http://www.hflconsulting.uk) for more details on HFL's services, team, and project experience.*

## ReAgent Achieves ISO 13485 Accreditation for medical devices & launches new biological reagent manufacturing service

ReAgent Chemical Services has successfully achieved ISO 13485 accreditation. On 8th August 2019, they were awarded this international ISO standard which demonstrates that they meet the rigorous requirements of a quality management system specific to the medical devices industry.

ISO 13485 is a practical foundation and solution to meeting Medical Device Directives, regulations, and responsibilities. Companies accredited to this standard show that they are committed to the safety and quality of medical devices and demonstrate their ability to provide medical devices and related services that constantly meet customer and relevant regulatory requirements. For ReAgent, this means they are accredited to supply bespoke biological reagents for use in medical devices.

Richard Hudson, ReAgent's CEO, says, "Gaining ISO 13485 accreditation is a great achievement for ReAgent. It shows our high-quality standards, provides credibility to our

customers, and adds another string to our bow. I'm very proud of the team, who are committed to making ReAgent the best it can be for our customers."

Alongside this accreditation, ReAgent has also launched a new biological reagent manufacturing service supplying bespoke reagents, including biological buffers, bioprocessing reagents, and in vitro diagnostic reagents.

With the ability to manufacture different types of biological reagents, including but not limited to reagents for use in medical devices, ReAgent's customers will have the peace of mind that the manufacturing processes and controls ReAgent has in place are rigorously quality-controlled and compliant. They can be confident that ReAgent is a credible, trustworthy manufacturer of bespoke biological reagents.

*For more information or to enquire about bespoke biological reagents, call ReAgent on 0800 9555 798 or contact them via their website [www.reagent.co.uk/contact/](http://www.reagent.co.uk/contact/)*

13th & 14th May 2020 EventCity, TraffordCity, Manchester

REGISTER NOW FOR FREE ENTRY!



# CHEMUK2020

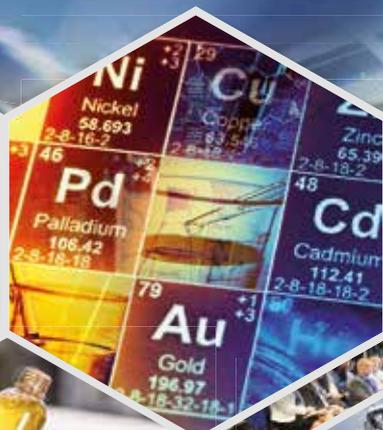
The Supply Chain Expo & Speaker Programme for the UK's Chemical Industry

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# All you need to know about CHEMUK 2020



The **CHEMUK 2020** supply-chain expo and speaker programme returns on the **13th & 14th May 2020** at **EventCity** in **Manchester**.

CHEMUK 2020 will bring together the UK's chemical processing and chemical product formulation industries, providing an intensive 2-day supply chain sourcing, business networking, intelligence gathering, best-practice and strategy development experience.

NEW FOR 2020 will be the 'CHEMSOURCE' Zones that will see an expansion of the exhibits space and speaker programme coverage, relating to Specialty Chemicals, Ingredients & Raw Materials supply chain & sourcing.

## 2-Day Chemicals Industry Supply Chain Expo

CHEMUK 2020 will provide visitor groups with a diverse and impressive showcase of 250+ specialist exhibitors showcasing latest plant, equipment, materials and services supporting the chemicals industries, driving product innovation, plant & process performance, future-proofing, supply-chain fulfilment, safety, compliance and more.

## Speaker Programme

The 2-day speaker programme will deliver some 30+ hours of free to attend expert intelligence, case studies, best practice and tech-insight 'snapshots', to inspire and assist next level investment and operational strategies for attending industry groups across the UK chemicals & chemical product sectors.

Centre stage will be critical themes such as process innovation, improvement & intensification, sustainability & responsible care, digitisation, new technology, plant & supply chain management, process safety & regulatory landscape, global trade, sector skills, Brexit and more.

## Sectors in Focus

Programmes will address the needs of the diverse industrial chemicals development, processing & distribution sectors, from commodity to fine & speciality chemicals, intermediates, dyestuffs, additives, bio-based chemicals etc. Downstream formulated-product sector focus will include Cosmetics & Personal Care, HI&I Cleaning & Biocidal Products, Adhesives & Sealants, Polymers & Resins, Lubricants, Pharma & Healthcare, Paints, Inks & Coatings and more, as well as key 'breaking markets'.

## EventCity, Manchester

Hosted at the largest exhibition space in the North, EventCity, CHEMUK 2020 is located in the heart of the UK's largest chemical region whilst providing excellent connectivity for the rest of the UK and Europe.

With FREE ENTRY into all exhibits, features & presentations, plus on-site FREE PARKING, as well as easy access by rail and air, the venue provides an easy experience for all visitor groups.

## Who should visit?

CHEMUK 2020 reaches out to all key chemicals/chemical product & chemical using industries, targeting **Chemical Process Engineers, Operational, HS&E, Control & Instrumentation, Test & Inspection, Manufacturing, Formulation, Logistics, Procurement & Supply Chain, R&D & Scientific** professionals plus **Chemical industry business teams**.

Organisers are anticipating attendee groups from across the broad industrial chemicals manufacturing & distribution sectors, from petrochemicals & base chemicals, to fine & speciality, intermediates & additives, polymers, inorganics, dyes, pigments, green chemicals, process chemicals and more.

Equally, the event provides chemical-based formulated product industries, from the cosmetics & personal care industries to paints & coatings, household & industrial cleaning, pharmaceuticals, water treatment, plastics and others, with crucial access to supply chain raw materials, chemical product processing plant, technologies & support services.

## Dates for the Diary

**CHEMUK 2020** takes place on **Wed 13th & Thu 14th May, 2020**

**Venue: 'EventCity', Phoenix Way, Off Barton Dock Road, TRAFFORDCITY, Manchester. M41 7TB (Sat Nav: M17 8AS)**

**Opening Times:** Day 1: 9.00am – 5.00pm  
Day 2: 9.00am – 4.00pm

**FREE PARKING for all visitors**

**Register NOW for your FREE entry badge at [www.chemicalukexpo.com](http://www.chemicalukexpo.com)**

# Chemicals Northwest

**Awards Dinner 19th March 2020, Hilton Manchester Deansgate** (please mark your diaries)

**We are delighted to announce the launch of the Chemicals Northwest 2020 Awards programme which culminates with a first-class gala dinner celebration and announcement of winners at the Hilton Manchester Deansgate on the 19th March 2020. Our host for this year's ceremony is BBC Presenter and Political Editor Nina Warhurst**

The 2020 Awards will incorporate exceptional pre-dinner drink receptions. Hosokawa Micron are delighted to support a "sponsors and guests" reception in the famous Cloud23 bar with views over the Manchester skyline. All guests will then convene in the Deansgate hotel foyer for the main drinks' reception, also sponsored by Hosokawa Micron. We also welcome CHEMUK 2020 as our Headline sponsor for the awards and Manntek for sponsoring our awards dinner brochure.

Chemicals Northwest members play a critical role towards delivering success in our industry and in many downstream sectors. Please share your good news stories with us, the application form is straightforward. Entry is also open to non-members.

The Awards honour excellence across a wide spectrum of business activity, from Innovation to Sustainability and from Young Talent to Supplier to the Chemical Industry.

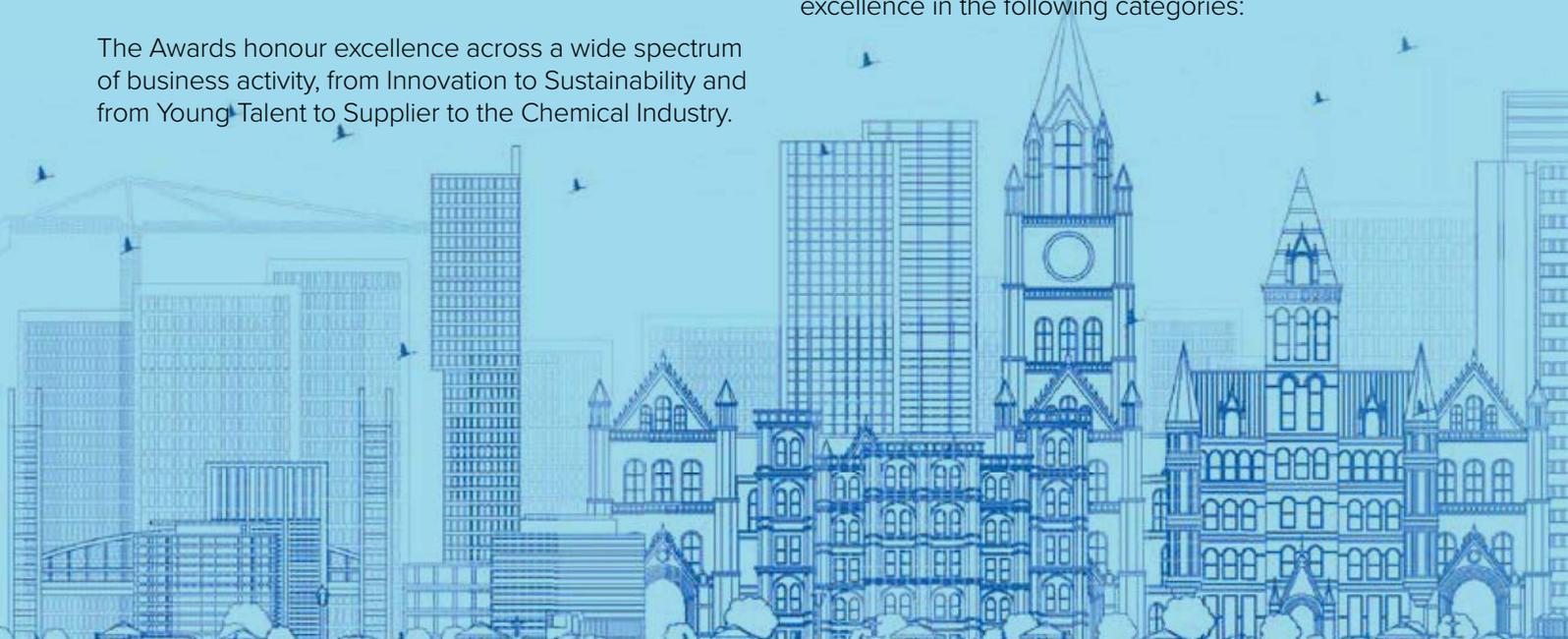
**Sponsorship opportunities are available so please contact Alex (alex.abraitis@chemicalsnorthwest.org.uk) for further details.**

The categories and how to enter can be found at [https://www.cia.org.uk/chemicalsnorthwest/2020\\_awards](https://www.cia.org.uk/chemicalsnorthwest/2020_awards)

**There is a limit of 1000 words per entry and you may find the following helpful in structuring your entry:**

- 1. Description of your entry (project/person/application etc)**
- 2. How was it successful?**
- 3. Why you think it should win the award**

Eligibility for the awards is simple. You will be a chemical processing company, a key player in the chemicals supply chain, or an important stakeholder or service provider to the sector overall. We are searching for excellence in the following categories:



## Current Sponsors



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# Awards 2020



**Award Nominations open 14 October 2019 and close on 24 January 2020**

## **1. Engineering firm of the year 2020**

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 award 2020 – sponsored by PM PROJEN**

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 award 2020 – sponsored by Livent**

This award will recognise 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, or a supply chains partner.

## **4. Sustainability award 2020 - sponsored by INOVYN**

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 2020**

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 award 2020**

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 2020**

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 2020 – sponsored by SRG**

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 award 2020 – sponsored by Valtris Specialty Chemicals Ltd**

If you represent a charity which you think deserves a special recognition, or you have been involved in events through the company to do work for, or to raise money for a charity, then please submit your entry. Winners will also receive £1000 towards their charity.

## **10. Supplier to the chemical industry award 2020**

This award covers a broad scope of entries and the winner could be reflected within: the provision of innovative problem solving anywhere in supply chains, to the chemicals sector. The winner will be able to demonstrate how their products or services have successfully responded to a customer problem and helped deliver effective supply partnerships.

**To enter the awards please email [alex.abraitis@chemicalsnorthwest.org.uk](mailto:alex.abraitis@chemicalsnorthwest.org.uk) by 3pm on Friday 24th January 2020 with the title of the award as the email header and include your contact phone number.**

***Good luck to everyone and we look forward to seeing you in Manchester on 19th March!***

# Axiom Engineering Associates continue regional expansion, with planned moves to further boost support to North West chemical sector

Chemicals Northwest members Axiom Engineering Associates' 'localisation' strategy, which will see them get closer to their key clients through establishing regional presences in key Chemical and Process sector hubs, has gained further momentum with the recent opening of a new office in the Central Belt of Scotland. This is a significant milestone for the business, with this constituting Axiom's first major regional office establishment outside of Teesside.

It is Axiom's intention to replicate this move in the North West of England, in light of the company's growing involvement in supporting fellow Chemicals Northwest members to develop and deploy fit-for-purpose integrity management strategies, aimed at identifying and mitigating the key risks associated with operating ageing, high-hazard plant.

Kevin Murray, Axiom's Regional Manager for North West England and Scotland, said of the company's moves: "I have been struck by the ambition and growing reputation of Axiom, together with the high demand for their services, since joining the company earlier this year. Our Scottish office opening has set a blueprint for establishing a successful regional presence, and I look forward greatly to following on the heels of this move through our fully-localising in the North West during early-2020. This will enable us to deliver the efficient, responsive service demanded by clients operating ageing assets, and see us

further integrating ourselves within a buoyant Chemical cluster championed by Chemicals Northwest and its members."

Our in-region team will be growing during the course of 2020, however Axiom's clients will continue to enjoy reach-back to specialist Mechanical and Materials Engineering skills throughout the wider organisation. Our Engineers have helped clients in the North West solve some of their most challenging technical problems. One such instance saw a client seeking to understand the remnant life of an ageing piping system on an extremely arduous operating duty, with design conditions close to 1000°C. It became clear upon analysis that system stress levels, coupled with the elevated temperature, meant that no certainty could be given over the long-term integrity of this pipework. In order to provide improved confidence that this business-critical system could continue to operate in line with our client's life extension aspirations, an improvement scheme involving re-routing, together with an upgrade to a high-alloy material with improved high-temperature creep resistance, was devised by Axiom's team.

James Robson, Axiom's Mechanical Operations Manager, stated: "This project was a great example of Axiom's core disciplines coming together to help our client to understand and mitigate their business risk. Our Engineers and Inspectors are at their best when they are being faced with challenges that are outside the norm. With the range of specialist operators and unique challenges present across the North West's manufacturing base, we are excited at the potential to get closer to these challenges and make a positive difference to the fortunes of the sector."



Left to Right (Axiom with Falkirk Council at the official launch of the Axiom Scotland office in Grangemouth), Kevin Murray, Regional Manager for North West England and Scotland, Adam Potter, Managing Director, Cllr Cecil Meiklejohn, Falkirk Council, Rob Johnson, Director and Principal Mechanical Engineer

# Hazards30

18–20 May 2020, Manchester, UK

*Hazards 30* is IChemE's annual process safety conference, the leading event of its kind in Europe.

It will explore every major aspect of process safety and help you to learn from the experience of others. Join us to stay up to date with process safety good practice, discover new techniques and approaches, and explore lessons learned from past incidents and near-misses.

You'll also have an opportunity to network with 300+ other process safety professionals. *Hazards* is an international, industry-focused event and attracts practitioners from all over the world.

*Hazards 30* will mark 60 years since *Hazards* was first held in Manchester in 1960. Since then, *Hazards* has grown in size and influence, continuing to be at the forefront of sharing new knowledge and disseminating good process safety practice across the process industries and beyond.

## Key features

- 100+ oral presentations and posters from industry practitioners, researchers and regulators
- invited plenary speakers from industry
- panel discussion
- trade exhibition of process safety products and services
- social and networking opportunities

Find out more and register: [www.icheme.org/hazards30](http://www.icheme.org/hazards30)



Sponsorship and exhibition packages are available



IChemE ADVANCING CHEMICAL ENGINEERING WORLDWIDE

# A people focused approach to business relocation

PM PROJEN recently relocated its HQ to larger premises. As part of this move, human factors and environmental impact were prioritised for the benefit of both its workforce and the business as a whole.

PM PROJEN has now entered its 41st year in operation and is proud to be an employee owned North West based business providing its services across the whole of the UK and Western Europe. Our business has constantly evolved in line with ever changing market challenges and in 2018, PROJEN joined PM Group, an international Project Management business comprising of 2,700 personnel.

PM PROJEN was originally founded as part of the extensive engineering network that grew up around the multitude of ICI businesses that existed in this region from the 1920s. The Northwest of England has always been a 'hotspot' of industry and as such it has helped support the development of a pool of highly talented and experienced engineers, many of whom we are fortunate enough to have as employees.

Despite the 'recent' uncertainty created following the EU referendum in June 2016, our business has continued its sustainable growth path and by early 2019 it had become obvious that our HQ in Preston Brook had become too small to service the business, and most importantly, the needs of our personnel. Given that we are a people focused business, we took the opportunity to take a 'human factors' centred approach to our relocation project.

Key considerations for the new facility included: -

- Increased daylight
- Enhanced views, (including trees and landscapes)
- Outdoor meeting spaces
- Access to local footpaths and scenic walks
- More informal meeting spaces
- More flexible working areas
- More desk space
- New computer monitors
- The inclusion of art and graphics into the work environment
- Enhanced catering facilities
- Inclusion of a wellbeing room
- Large dining area
- More/safer parking

After an extensive search, we identified an office that had the potential to fulfil our key requirements. 1100 Daresbury Park was chosen because of its proximity to major transportation hubs and the fact it is a modern and space efficient design. However, the internal spaces needed to be

completely re-engineered in line with our key requirements. As a business that sells relocation services to our clients, it was vital that we successfully managed this project ourselves.

As well as the human factors, the relocation gave us the opportunity to reduce our impact on the environment through a number of measures including: -

- Efficient HVAC systems
- Increased thermal insulation
- Zoned, PIR controlled LED lighting
- Instant water heaters
- Better public transport links
- Segregated waste and recycling streams
- Cycle storage

Following a condensed planning and office fit out execution phase, PM PROJEN suspended operations at its Preston Brook offices at lunch time on Friday 27th September and was back up and running at the new office by 9AM on the following Monday.

Following the move, Dave Elliott (PM PROJEN, Director of Operations) said: -

"I am delighted with our new office and we have already received positive feedback from clients, suppliers and most importantly from our own personnel. I believe we have created a much improved, modern yet functional working environment which will be conducive for collaborative and efficient working and one which will help us to recruit and retain staff as we grow in the future. I would like to pay tribute to my relocation team for an internal project well-delivered".

Given that we operate across multiple sectors here in the UK, we feel that we are a good 'barometer' of how businesses (and their people) are feeling about the future of manufacturing, not least in the light of the uncertainty following the EU referendum. It is clear that the UK as a whole is bracing itself for change but what is particularly encouraging is that almost without exception, North West businesses have very much taken the approach of 'business as usual'.

As a prominent North West based business, we are proud to be able to show our continued commitment to our clients and our personnel and demonstrate our confidence in the future through our investment in our new facilities at Daresbury Park.

**Author, Shane Pugh (PM PROJEN,  
Director of Business Development)**

# Functional Safety Management Planning: 3 Honest Serving Men?

*I keep six honest serving-men (They taught me all I knew); Their names are What and Why and When, And How and Where and Who... (Rudyard Kipling)*

Functional Safety Management Planning is a critical aspect of project execution but is typically not handled well. There is a tendency for Functional Safety Management Plans (FSMP) to adopt default statements of intent and to end up with chunks of text transcribed from the standards. They can quickly become comprehensive statements about the virtue of functional safety.

Difficulties often arise because of confusion about the role of the plan. The standards identify what should be covered in your plan, but this is typically a niche aspect of the wider project plan and the usual expectations associated with this can confuse the preparation of the more narrowly focussed FSMP.

## So, what should a FSMP consist of?

In essence it needs just three serving men (but they must be honest!); What-How-Who:

What (in terms of functional safety) is to be done, on what basis (how), and by whom.

- What activities are to be undertaken in support of the life-cycle phases and what deliverables are required.
- How are these activities to be undertaken; which procedures, protocols, standards and tools are to be employed.
- Who is to undertake the work and who is to be responsible for its effective execution?

Not why, when, or where (they can have the day off):

The 'why' will often be self-evident or traceable to the standards, and even if you see good reason to record the rationale for pursuing a particular approach, that need not appear in the plan itself. It may be captured in some other document, but it is perhaps better not to pad out the FSMP and possibly make the useful stuff harder to see.

'When' is not in the domain of the FSMP but rather that of the project execution plan. I would not expect to meet a Gantt chart in the FSMP. The dependencies of the life-cycle phases are identified in the life-cycle model, but this does NOT translate to a critical path for functional safety planning.

The standard presents the lifecycle as a so-called 'waterfall' model, with each phase cascading, in serial fashion, to the next downstream phase. Back in the real world we should recognise that project execution involves iterative loops and parallel processing paths. The 'whens' of functional safety are necessarily integral to the 'whens' of the wider project plan, and if you attempt to separate them you will likely find yourself obliged to duplicate them, with corresponding scope for discrepancies to develop.

'Where' is really a matter of logistics and typically will be implicit in the 'how' of the FSMP and can be detailed if appropriate in the project execution planning.

Another potential pitfall is to try and make the FSMP all encompassing. Rather than a monolithic edifice, a modular approach is likely to be more manageable, with the FSMP establishing a framework that references independently maintained documents.

The honesty of our 'serving men' is important; we should avoid kidding one another (or ourselves) about the plan. If we don't yet know, we should say so. It may be that some aspects of the plan can only be identified at a later point. The plan may well need to evolve and should not be considered as 'cast in stone' at the outset. That said however, we should be sceptical of too much talk of its being a 'living document' if this is to be invoked as justification for procrastination. The details may be coloured in later, but the outline sketch should be in place from the start.

(SISSuite Ltd. have released a new module to support FSMP – with the full automatic version control that is one of the hallmarks of the SISSuite tool set. Extended free trials of the full functionality are available to bona fide customers. We're not trying to kid anyone here – we want users to be fully satisfied that SISSuite is the right fit for their operation.)

**For further details contact Martin Hold  
- [m.hold@htsgrp.com](mailto:m.hold@htsgrp.com)**

# “Risk of lightning?... a warning”

To demonstrate the performance at an offshore facility, Cofely Fabricom –GDF Suez (Engie) was asked to install a BTD-300 on a substation for the wind farm C-Power (Thortonbank, Belgian North Sea). The installation of the BTD-300 on the C-Power substation was used to evaluate its ability to provide the wind farm operator advanced real time information about thunderstorm activity within a 56km (30nm) radius. During the evaluation period, they maintained their existing lightning warning contract with a large and internationally renowned provider of thunderstorm information to verify the resultant information.

After several weeks of no thunderstorm activity (and no false alarms!) the system was fully tested by one very significant storm on 3 February 2015. On this day there was no visible lightning in the distance to give the operator the tell-tale signs of an approaching storm. The reporting timeline was as follows:

- The BTD-300 software screen alerted the operator to a strong electric field at the site
- Within 15 minutes a strike was recorded <20nm (<37km) away, bearing 090 degrees. Personnel were informed to implement the risk assessment protocol
- Within a further 2 minutes a strike was recorded overhead – the first of this storm
- 10 minutes after the first strike was detected by the BTD-300, the report is received from the existing national network provider.
- The strike was recorded by the network as being 2.3km away from the substation, a range in accordance with the BTD-300 overhead alert.



This clearly demonstrated the ability of the BTD-300 to provide advanced warning of the possibility of a thunderstorm. This warning allowed the customer to make an informed risk assessment and to maintain the safe operation of the platform.

**Full article can be found: <http://bit.ly/2n6OKrg>**

## Retention of talent

Know a piece about talent retention isn't what you were expecting to see from a headhunting business. However, if you think for a moment, you will realise that a headhunter is well qualified to discuss the rationale for why talented employees leave an employer and give insight into the best retention strategies.

### Why talent leaves?

While there is a multitude of reasons, some of which can be deeply personal, the three most common reasons we encounter daily when proactively approaching individuals are:

1. A lack of development opportunity – not just promotion, also around investment in training and CPD
2. A lack of recognition
3. Feeling financially undervalued

### Best Retention Strategy

Even in a flat corporate structure you can fund external courses and allow time off for CPD. It may be worth including a payback clause whereby if the employee leaves within a 6 or 12-month timeframe they must repay

the amount you, as an employer, have invested. Consider secondments, again, whilst not a formal progression of the individual, this keeps a focus on learning and transfer of knowledge and skills around the organisation.

Clear recognition and reward – depending on the role of an individual, this could be around achieving KPIs operating beyond their job description when added on or perhaps living and breathing the company values. Award and reward – feature in your company newsletter, an extra day's leave.

Paying an employee what they feel they are worth isn't always feasible, but by regularly reviewing salary / benefits and discussing during PDPs you can at least identify individuals who feel undervalued and may be open to moving for financial gain. One of the biggest causes of frustration is where employees performing the same role have differing remuneration – for the person being paid less, this is demotivating and could be deemed discriminatory. I often find that the salary required to recruit the replacement is higher, which begs the question...if the company had paid the previous incumbent that salary, would they have left in the first place? I'll leave that one with you.

**Giles Hampson, Managing Director, RMG – Recruitment Management Group, 01928 711800 [www.rmg-uk.com](http://www.rmg-uk.com)**

# Digital Twin does more than designing, analysing and processing; It's the cyber attack combatant!

Digital Twin technology has revolutionised the manufacturing sector over the last decade, this trend continues, and we see a lot more industries embracing the benefits of designing, analysing, and processing to realize a go-to-market product.

Whilst the digital twin in the chemical industry has made an impact on the product lifecycle to simulate, predict, and optimize the product and production systems at a plant. It has also prompted linking of physical infrastructures to digital networks and there are ongoing efforts to intensify this inter-connectivity. These technological advances, such as Industrial Internet of Things (IIoT) have in the process brought in some serious challenges. As these systems are vulnerable to attacks and hackings, every industry is challenged to put in place multiple measures for ensuring cybersecurity.

So how can a digital twin help combat cyber-attacks? Just as processes are simulated and data gathered to detect non-performance of assets a simulated cyber-attack can also be detected by the digital twin. A cyber security algorithm of anti-virus software can be activated to detect the virus and its implications allowing engineers to act swiftly and put defence mechanisms in place. In many cases where the virus is severe like ransomware, IT engineers can activate a counterattack to stop the cyber breach from happening.

Simply put, the more information and testing activity is captured by the virtual database, the digital twin can tackle complex data to create competent cyber security protection algorithms, defending data of business against any malicious virus activity.

Cyber security is an inclusive process that complies with globally accepted security standards, so the digital twin becomes an effective tool. Protection against cyber-attacks cannot be achieved through one-time implementation of measures; it is rather an ongoing process.

At the Siemens' Digital Talks conference held in Liverpool earlier this year, there was a healthy debate exploring the challenges and opportunity that digitalisation brings to the sector. These conversations with industry peers only helped underline the sector's need for adopting robust cybersecurity systems. Digitalisation and IIoT have been identified by the UK's Chemistry Council as two of the key strategy levers to accelerate innovation-led growth in the chemical industry.

Cyber threats fall into the bracket of risks and vulnerabilities. They come in various forms, such as viruses, malware, ransomware and hackings. Hackers are employed by rogue companies to infect with either a worm or ransom ware. They identify the weaknesses in any system and if you have a legacy plant with older Windows operating systems that are not patched or updated, the hackers find routes to break into the network. What chemical companies are doing today is something called airgap, which effectively means they remove the ability of a process to remain fixed to the internet, which solves part of the problem. It just means that there is no physical connection between the asset and the internet.

What is highly recommended is an advanced in-depth approach by conducting a cybersecurity gap analysis survey. This involves a thorough infrastructure assessment of the different technology layers. Based on the outcome of the report, a list of vulnerabilities is then identified. The digital twin can make this whole process a lot easier and much more achievable.

The digital twin can pinpoint any plant's requirements, including installation of multiple levels of security, firewalls, managed security and latest technology. This process is called defence-in-depth approach to cybersecurity, rather than a single solution.

As cloud based IIoT control systems become an industry norm adoption of cyber security is critical for any digitalised organisation.

The digital twin can help with both, monitoring performance of assets and the algorithms can give the customer insights into any failure, leading to preventive maintenance and most importantly cyber-attacks which can be averted on detection.

In cybersecurity, installing the best technology to monitor and assess any external inference is the most critical step. Digital twin allows seamless integration of hardware and software allows teams to work both online and offline on a plant.

Cybersecurity forms the key element of digitalisation. It is a comprehensive process that affects all parts of the plant and requires continuous auditing and monitoring. Therefore, ensuring cyber security by adopting advanced technology is in the best interests of all stakeholders.

**Ian Elsby, Siemens Digital Industries Head of Chemical Industry UK & Ireland. For further information contact: Paul Addison at Siemens [paul.addison@siemens.com](mailto:paul.addison@siemens.com)**



# 2M Holdings crowned with Queen's Award at 2M House by Her Majesty the Queen's Representative

Her Majesty Queen Elizabeth II's Representative, The Lord Lieutenant of Cheshire and the worshipful Mayor of Halton, attended the 2M Headquarters in Runcorn, UK, on 17 September, to present the 2M Group with the Queen's Award for Enterprise, International Trade 2019.

The Award was presented to Mottie Kessler MBE and Dr Maggie Kessler, co-owner, in recognition of the significant Export growth by 2M and in appreciation of 2M's investment in young people's access to a career in STEM.

When 2M was founded in 2004, it sold only into the UK. It now exports to over 90 countries and includes 7 subsidiaries worldwide. The Group was also celebrating 159 years since its first company, Banner Chemicals UK, was founded, and a year to the day since moving to the 2M House and dedicated STEM Centre.

In April of 2019, 2M was selected as Export Champion by the UK Government's DIT (Department for International Trade). The Group has reached many new markets worldwide and credit DIT with much of its success in accessing overseas markets.

The Queen's Award presentation was attended by DIT Northern Powerhouse representatives, 2M's employees from across the UK and Europe and customers and suppliers from the Chemical Industry.

2M's logistic partners, Suttons Group, brought a demonstration deep-sea ISO-tank into the 2M HQ carpark, to the delight of guests, who were able to climb inside and learn about the safe transport of chemicals.

David Briggs, MBE, K.St.J., The Lord-Lieutenant of Cheshire told 2M's employees:

*"The Queen's Award is the highest business award which exists in this country. What you have done, together and as a team, is to win the UK's highest business award. "*



Mottie Kessler MBE said:

*"Chemistry and science have no borders or boundaries, except those we set on ourselves. We are constantly seeking new opportunities to expand; we know we will continue to do so. We also know that you, our business partners and employees, will be there to support our growth and make it all happen!"*

Dr. Maggie Kessler, Export Director and 2M co-owner said:

*"We give special thanks to the DIT, for the enduring partnership which has helped us grow our export and win the Queen's Award for International Trade. We join the DIT in sending a very strong and positive message to the UK Chemical Industry in the North of England."*

2M would like to thank its excellent teams across the Group, as well as its customers and suppliers for a successful partnership.

**For further details please see [www.2m-holdings.com](http://www.2m-holdings.com)**

# How do chemical translation services contribute to the chemical industry?

Key stakeholders in the chemical industry would agree that informed business decisions shouldn't be made until everyone involved has a good overview of the major trends, the potential opportunities and the challenges that face the overall industry.

According to a study of the chemical industry's impact on the global economy, which was conducted by the International Council of Chemical Associations under the title of: "The Global Chemical Industry: Catalyzing Growth and Addressing Our World's Sustainability Challenges", the chemical industry contributes \$5.7 trillion to global GDP and supports 120 million jobs worldwide.

The report also reveals that "the chemical industry is an irreplaceable contributor to global GDP, a source of skilled employment opportunities and a major enabler of progress in the environmental, social and economic aspects of sustainable development".

## What about the UK?

Let's now have a look at the current landscape of the UK chemical industry. According to the Chemical Industries Association, the "chemical and pharmaceutical industry adds £14.4 billion of value to the UK economy every year from the total annual turnover of over £40 billion".

This amounts to about 10% of the value added by the whole of UK manufacturing, making it undeniable that the UK chemical industry forms an integral part of Britain's economy.

## How Do Chemical Translation Services Make a Difference?

When your chemical company goes global, you'll normally conduct extensive market research, study the competition, endeavour to reach out to prospective customers, and so on.

But what about chemical translation services and their critical role in opening your company up to a multitude of new opportunities? To put the question differently, can your company find great business opportunities on the other side of the border without bridging the language gap?

The answer is that professional translation of your web content, product features, social media posts, and marketing and communication campaigns will certainly set you apart from the competition, increase sales and, most importantly, boost profits.

## How to Choose Your Partner for Chemical Translation Services

So having established the importance of partnering with a professional supplier of chemical translation services, how do you go about the strategic decision of which partner to choose?

First of all, you should look for a chemical translation services provider with a specialised team comprising qualified chemists, chemical engineers and expert linguists.

Secondly, you should select a company that delivers quality – namely a translation service that provides clarity, consistency, accuracy, and reliability in multiple languages.

Thirdly, the right translation company is one that provides chemical translation services in a timely, cost-effective manner. A fast turnaround coupled with a competitive price are key features of the right company.

## Why TW Languages?

Why do high profile clients across the world recommend TW Languages for translation projects in the chemical domain?

These are some of the factors that make us stand out:

- ISO 17100 certified and ATC (Association of Translation Companies) member.
- Fast turnaround, high quality and within your set budget.
- We cover over 250 languages.
- Outstanding Translation Team: Our linguists are native speakers with a wealth of experience and specialisation in your field and they are well-versed in chemical jargon, meaning translations are carried out to a professional and high standard.
- Rigorous quality process: In addition to the use of the latest translation technology, all our company's translation output is carefully reviewed by our experienced chemical linguists to ensure the correct context and overall accuracy.

**Contact us today to discuss your chemical translation project and find out how TW Languages can provide you with the highest quality translation in the industry.**  
[www.twlanguages.com](http://www.twlanguages.com)

# What Gen Z want

Firstly we want to be clear. We're not into F labels at Outward Bound. We just want young people to be the best that they can be. But as most of us were born before Gen Z (ahem!), it's important that we challenge ourselves to understand the newest generation coming through our doors.

## Who are Generation Z?

**Gen Z: born after 1997, successors to millennials, but strictly not a carbon copy**

They're the first truly digital and global generation. They're the most diverse, politically liberal and educated cohort to date. And they know what they want from your workplace.

A number of macro trends have shaped the way that Gen Z think. They've grown up in the wake of the Great Recession and stumbling job recovery; increasing global institutional insecurity; drastically rising costs of higher education; and an information environment where they, as digital natives, reign supreme.

This in turn has shaped their attitude to work in three primary ways:

### 1. They're loyal, and they're willing to work hard

GenZedders appear to appreciate the current economic precarity. They know they'll have to work harder, and for longer. Whilst millennials have had a reputation for job hopping, initial research on Gen Z shows them to be intent on staying within their organisation or industry and working their way up the corporate ladder.

### 2. Apprenticeships are on their radar

According to Forbes, Gen Z have learnt from previous generations and are looking for ways to avoid accumulating debt. Despite their reputation as the most educated generation, this includes side-stepping the costs of higher education and going straight into the workforce.

### 3. They have a can do attitude

They're creative and entrepreneurial. They've learnt how to think, learn and communicate in a never-ending ocean of information. They're used to being taught and having an input. They've got an aptitude for constant learning and feedback, highly valuing opportunities for training and advancement within their careers.

## The future of work: Retaining your talent

Employers are facing a challenge. The average cost of recruiting has increased and 'time to hire' has more than doubled over the last five years. In the current political climate there will need to be a greater focus on developing in-house talent and retaining your newest recruits.

We can see that Gen Z are already shaping up to be a committed and talented bunch – but what more can you do to attract and keep hold of your apprentices and graduates?

### 1. Quench their thirst for learning

We know they've been ready to learn since day one, equipped with the internet, YouTube and a global network of peers to answer their questions on demand. Make sure that they have plenty of opportunities for formal and informal learning and progression.

### 2. Create an open and inclusive working environment

Gen Z are all about inclusivity and diversity and they want to see it in their workplace. They're also keen on collaboration, with a preference for face-to-face communication with colleagues and a working environment conducive to teamwork.

### 3. Offer them something different and help them to flourish

Yes, the future of business is a networked one, and there are distinct advantages to making use of social and emerging technologies. But let's face it – unless you're a big tech, it's highly unlikely that you're going to be teaching your youngest employees something they didn't already know (or have the app for). Research suggests that younger generations are lacking in other areas – namely cognitive social and emotional skills (and there ain't no app for that).

In the 2016 CBI Education and Skills survey, employers reported dissatisfaction with communication skills (50%), business awareness (69%) and self-management and resilience skills (48%) of school and college leavers. The updated 2018 survey shows that 60% of employers still rate these broader skills as among their top three priorities. This tells us that developing behaviours should still be a priority in your apprentice and graduate training programmes.

Gen Z mark a divergence from their predecessors, and they'll need to be nurtured if you want to get the most out of them and retain them for years to come.

*Written by John McCarthy,  
Client Relationship Manager  
– The Outward Bound Trust*



## Intersolia

Intersolia is committed to providing organisations of all sizes with a comprehensive web-based solution, known as iChemistry™ for ensuring COSHH compliance and the complete and total safe management of chemicals.

The benefits associated with using our iChemistry™ solution are the avoidance of chemical-related accidents; compliance with UK and European health, safety and environmental (HS&E) legislation; and, a reduction in the number of harmful or hazardous products on site. The result is a complete and superior overview of an organisation's chemical safety efforts whether from the global perspective of a multi-national group, or that of a sub-department at a specific site within a family run enterprise. We also manage all SDSs on behalf of our customers, minimising a significant amount of the time-consuming administration enabling teams to focus more time and effort on core business related activities.

Our reputation is built upon improving safety for those engaged in the use of chemicals whether in manufacturing or technologically based industries. Our iChemistry™ application makes it easier for all organisations, of all sizes, to drive the development of chemical safety ownership; the immediate identification of chemicals and substances which have prohibition, restriction or exposure limits associated with their use; accountability for carrying out quality 'activity based' risk assessments adding value to those at risk; immediate oversight provision of progress to senior management enabling them to drive through continual improvements; and, the significant enhancement of workplace safety culture.

We also have a team of UK and European consultants who can create SDSs; advise on both UK and European HS&E legislation, including REACH; act as "Only Representatives"; provide guidance CLP, GHS, DGSA and many, many more services.

**intersolia**  
Chemical Responsibility

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## Yordas Group

Yordas Group is a leading provider of scientific, environmental, human health, global regulatory, sustainability and product stewardship consulting services. Yordas has a solid and internationally recognised reputation as a provider of training, advice and services to ensure compliance across the globe, with regional representation and service providers globally.

Delivering innovative solutions for business, industry and government, Yordas continues to create value and sustainability for our clients. The key sectors we serve include Advanced Manufacturing, Aerospace, Automotive, Consumer Goods, Biocides, Chemicals, Mining and Energy. Crosscutting themes such as Sustainability, Product Stewardship, Chemical Notification Systems, Environmental Permitting, and Waste Management are within the broad portfolio of services we provide to our customers.

Our Strap line, "Business through Science" reflects the essence of our organisation and the drive to underpin our work through exceptional technical and scientific expertise. In-line with the ever-increasing need for the business to effectively integrate sustainable considerations along its value chain, we have extended our portfolio with cutting-edge tools and expertise to support our clients to actively manage the social, economic and environmental effects stemming from their operations while meeting regulatory demands.

Our uniquely collaborative approach is designed to build strong working relationships over time, allowing us to create a customised and integrated service specifically tailored to the needs of each individual customer.

We are not a faceless brand. It is important to us that our customers get to know who we are, and to this end we try our best to ensure that the same project team work with our clients throughout the entire process.

  
**yordas**  
Group  
*Business through Science*

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# Towards Zero Carbon – what to expect from a future government?

In the summer we wrote about the UK's new carbon emissions reduction target, to achieve net-zero emissions by 2050. Since then climate change has remained a high profile issue both in the UK and globally, largely due to Greta Thunberg, the campaigning activities of Extinction Rebellion, and the pronouncements of UK politicians during party conference season.

In September the Government's clean energy strategy was boosted by the results of the latest Contracts for Difference (CfD) auction round for new electricity supply capacity, as the lowest strike price for a new offshore windfarm was only £39.65/MWh. This is very significant in that it is below the current price of electricity from existing gas-fired power stations, and is a massive 31% below the lowest strike price in the previous CfD auction held just two years ago. Thus the downward trend in renewable energy prices continues.

In view of the fact that a General Election is expected soon – and may even have been announced by the time this appears – we thought it might be interesting to see what the political parties' carbon emissions reduction policies are; in alphabetical order.

It seems reasonable to assume that a future Conservative government would not depart from the net-zero by 2050 target set by Theresa May and broadcast as a world-leading commitment – unless domestic industry is suffering as a result of competition from other countries

that are not taking action on climate change. The current Prime Minister is thought to be keen on taking a prominent role in that process, but whether that role will be to drive it ever onwards or to set a speed limit in order to serve vested interests, is unclear.

The Green Party, predictably, advocates faster action. It wants the UK to reduce its carbon emissions to net-zero by 2030 and also to seek to eliminate the emissions embedded in imports as soon as possible. In view of the technical hurdles and societal adjustments needed, this is a challenging deadline.

The Labour Party, at its conference in September, committed to the same challenging timescale of "working towards" net-zero carbon emissions by 2030, a mere 10 years away.

The Liberal Democrats, for their part, would seek to reduce carbon emissions by 75% in the next 10 years, 93% by 2040 and net-zero by 2045.

In short, whichever party is in government, we can expect policies aimed at continuing, and accelerating, the reductions in emissions which have been made in recent years (44% in 2018, compared with the 1990 level). A differentiating factor may be where the cost burden falls.

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# Supplying to the Chemical Industry

Knowing your local supply chains is important, and suppliers of expertise, solutions and great products are right here in the northwest. CNW members have a strong association with and many years of experience supplying to the chemical industry. The companies listed in this directory cover a wide range of products and services. They have established customers in the sector, with proven track records. Many will be well known, long-standing firms and there will also be new and innovative businesses that you may not have heard about. Effective supply partnerships, delivering success for all! For more details, the websites for the listed companies and organisations can be found at:

<https://www.cia.org.uk/chemicalsnorthwest/Membership/Our-Members/>

## Distribution, logistics & chemical handling

### 2M Holdings Ltd

Chemical distribution and related services of sample management, storage and blending. Provision of AdBlue, Samsol products, packed chlorine and TRIKLONE & PERKLONE chlorinated solvents. Markets served include: automotive, precision cleaning, coating, oilfield & refineries, flavours, fragrances, surfactants for personal care, household and industrial cleaning and pharmaceuticals.

### Actikem Ltd

An ISO9001 certified business, specialising in a range of chemical processes and manufacturing services, including mixing, storage and re-packaging. We provide toll and custom manufacturing services for SMEs as well as blue-chip organisations, and supply customers with on-tap production facilities, offering them potential cost-savings and greater flexibility.

### BakerCorp UK Ltd

Provision of rental products for transfer, storage and treatment of liquids. Specialising in liquid management solutions for demanding operations, with focus on the tank, pump and filtration product lines. From a single-product storage project to setting up an integrated multi-product solution. Initial chemical compatibility checks, 'job walks', CAD drawings and rigorous equipment maintenance schedules.

### Brenntag UK & Ireland

Connects chemical manufacturers and chemical users in a value-adding partnership through tailor-made distribution solutions. Offers specific application technology, extensive technical support and value-added services (i.e. just-in-time delivery, product mixing, formulation, repackaging, inventory management and drum return handling). High safety standards and strives to make served industries sustainable.

### F2 Chemicals Ltd

As a specialist in the handling of fluorine gas, F2 Chemicals Ltd offers a variety of organofluorine products all manufactured at our Preston plant. Our primary product is a range of high specification perfluorocarbons, such as octafluoropropane and perfluorodecalin, under the Flutec tradename, used in applications including medical, tracers, plasma-cleaning, cooling and cosmetics.

### Hosokawa Micron Ltd

Integrated powder processing technologies including: size reduction, air classification, mixing, drying, containment equipment such as glove boxes and downflow booths. Contract processing services for 1kg to multi-tonne lots. Remote monitoring solutions that include: condition monitoring, analytics for improving product quality and energy efficiency and on-line diagnostics for predictive maintenance and improved plant availability.

### Innovative Packaging Solutions Ltd

A top tier COMAH operation offering many handling services: re-packaging of any class liquid chemicals from bulk isotankers, road tankers, IBCs and drums. Decanting, dosing and sampling. Packaging: HT pallets, strapping and shrink wrapping. Labelling of receipts and despatches. Storage services including: inside, outside or temperature controlled.

### Kanon Liquid Handling Ltd

Design and manufacture of drum, IBC and container filling systems ranging from fully automated robotic systems to simple manual machines. Full range of marine, road and rail tanker loading/unloading and safe access equipment. Distributor for Mann-Tek couplings, with repair facility and a 'return to base' option.

## Education, training & skills

### All About STEM

Lots of different projects to bring exciting Science, Technology, Engineering and Mathematics to schools across the region, linking them with business and industry expert volunteers inspiring the next generation of STEM specialists. Building and maintaining relationships with our schools, businesses, industry, colleges and universities, so that we can strategically match-make opportunities with need.

### Catalyst Science Discovery Centre

An independent charitable trust playing a pivotal role in promoting science across the Northwest. Catalyst works in conjunction with industry partners to excite young people about all STEM subjects and careers available within the science sector. Companies can also sponsor a local school to visit and attend industry days.

### Centre for Industry Education Collaboration

CIEC supports companies in making credible and sustainable links with primary schools, in order to inspire the next generation of scientists and engineers. We train STEM professionals to improve their communication skills, and develop industry-focused activities for use directly by teachers or by ambassadors visiting schools.

### Chemistry with Cabbage

We work with students of all ages, demonstrating through practical experiments, the relevance of chemistry in solving problems. Research shows that children make career choices very early on, so capturing their imagination early is important. Chemical companies are welcome to support our hands on work in primary schools.

### EngineeringUK

Not-for-profit organisation promoting the contribution made by engineers to society. We partner business and industry, government and the wider science & engineering community, producing evidence of the state of engineering. Sharing of knowledge and inspiring young people to choose a career in engineering.

### Manchester Metropolitan University

Degree apprenticeships, consultation services, collaborative and contract research facilities, and students seeking placement opportunities. The Department of Natural Sciences trains undergraduate and postgraduate students in chemistry, pharmaceutical chemistry, medicinal and biological chemistry, biology and environmental science. New MSc in Advanced Materials starting in September 2020.

### SEERIH

The Science & Engineering Education Research and Innovation Hub positively influences the

experience of young people in science and engineering. Expertise in curriculum and teacher development, applied research and creation of innovative projects related to primary science and associated STEM disciplines. Inspiring excellence in teaching and learning in science education.

### The Outward Bound Trust

An educational charity that uses the outdoors to help develop young people. Experts in the development of early talent and specialising in providing experiential learning and development programmes for apprentices and graduates. Identification, development and change of people behaviours in line with organisational needs.

### TTE Training Ltd

Engineering training and apprenticeships focused on whole person development and bridging the sector's skills gap. The learning environment will be one which is welcoming, safe and inspiring, appropriate to the subjects and responsive to the needs of the learner.

### University of Chester

Faculty of Science & Engineering offers new degrees in chemical engineering, electronic & electrical engineering, mechanical engineering, natural sciences alongside established degrees in mathematics and computer science. Close links to local chemical companies with student placements and collaborative research projects.

### Wirral Met College

Provision of education and training, supporting innovation and development. The College is pioneering SIP traineeship programmes with local employers, preparing young people for science apprenticeships. New STEM Centre opened in 2016.

## Engineering products & services

### Altrad Services

An international leader in the provision of critical industrial services principally to the energy, infrastructure and natural resources sectors. The multi-disciplinary service includes access systems, insulation, specialist coatings, passive fire protection, engineering services, refractory linings, environmental services, oil and gas storage tanks and heat exchanger replacement and refurbishment.

### Chem Resist Group Ltd

Design, manufacture and installation of corrosion resistant process plant. A wide portfolio of thermoplastic process plant, an extensive range of pumps and ancillaries and complete pipework installations, upgrades and repairs. Aggressive and corrosive applications for pumps (1m<sup>3</sup>/hr to 1000m<sup>3</sup>/hr, heads to 100m) valves and level controls.

### Derwent James Ltd

Providing outstanding safety equipment, consultancy and expertise for your company. Exclusive UK agents for Dopak chemical sampling systems. Over two decades experience in the design and supply of safe manual sampling systems for chemical liquids and gases. Consultancy and supply of mechanical interlocks, lockout tagout and portable valve drives.

## Know your supply chains

### DHD Cooling Limited

Design, installation and maintenance solutions for industrial cooling. Our service extends to cooling system inspection, testing, service, maintenance and new equipment capability. Regulatory and reliability assessments, thermal performance improvements, turnkey projects and carbon footprint reduction.

### Glacier Energy Services

Onsite Machining; design and manufacture of equipment for precision pipe cutting and onsite machining. Heat Exchanger design, manufacture, repair and refurbishment. Welding. NDT services performed by highly qualified technicians. Provision of turnkey solutions in respect of surface and subsea production equipment. Great customer value, highest standard of service and best-in-class HSEQ performance.

### HTS Engineering Group Ltd

Process safety and safety instrumented systems, delivered with a high level of engineering and expertise with cost efficiency. Four key engineering services that can be tailored individually or as one complete solution: process control & software engineering, engineering & design, site installation and inspection services.

### Laker Vent Engineering Ltd

Supply, fabrication and installation of process and utility piping systems. Project management, detailing, procurement, on and off-site fabrication and installation of pipework and coded welding. Associated steelwork supporting and mechanical installation of plant and equipment. Testing and handover. Pipework and steelwork is fabricated to specific customer-needs and conforms to all appropriate ISO, BS EN and ASME standards and specifications.

### Lokring Northern (UK)

Special mechanical fitting system that produces a permanent weld equivalent pipe connection, eliminating the need for hot work, NDT and associated health and safety issues. Lokring fittings are code qualified to ASME B31.1, B31.3 and other industry standards. A proven cost saver compared to traditional welding and fabrication methods.

### Manntek AB

Supply of safety dry disconnect and safety breakout couplings. Comprehensive range of specialist dry quick release couplings to suit 99% of known chemical applications. Bespoke solutions with a size range of ¾" to 8" nb. Dry disconnect couplings are made to NATO standard Stanag 3756.

### Perry Process Equipment Ltd

Buying and selling of high quality used processing plant and equipment. Savings of up to 70% on the cost of process equipment, full mechanical and electrical refurbishment and equipment immediately available from stock. Centrifuges, dryers, evaporators, filters, heat exchangers, mills, mixers, reactors, separators, tanks.

### Studley Engineering Ltd

A multi-disciplined mechanical and electrical engineering contractor, Providing a comprehensive service to the process industries in disciplines including: steelwork, welding, maintenance, site services, pipework, tanks and vessels. Over time we have gained an enviable reputation as a reliable, responsive, motivated contractor that delivers safe, high quality, cost effective work.

### Swagelok Manchester

Fluid system solutions, products, training and services. Supply of over 7000 fluid system components including; fittings, hoses, tubing, regulators, equipment servicing and custom fabricated solutions. Provision of practical information, know-how, tools and speciality services needed to purchase, manage and apply them successfully.

### Yokogawa

Fluid system solutions, products, training and Yokogawa is a leading provider of field instrumentation, safety systems, industrial automation and digital transformation solutions. I/OT, OT Cybersecurity and Alarm Management are specific areas of focus for Yokogawa's Advanced Solutions team with a number of major projects currently being delivered across Europe.

### Zulu Joint Integrity Ltd

We are an established specialist joint integrity management and training provider with a strong track record of supporting the chemical, oil & gas, petrochemical, power generation, steel making and process industries (particularly COMAH registered assets) with our joint integrity management and training/competency assessment services.

## Engineering project management & energy

### Axiom Engineering Associates Ltd

An award-winning company specialising in the provision of UKAS accredited inspection services, backed up by a mechanical and materials asset integrity section. Acting as the design and inspection authority to many blue-chip companies, working across a broad range of process sectors such as: chemicals, petrochemicals, bulk storage, power and pharmaceuticals.

### Clarke Energy

Specialists in the engineering, installation and maintenance of reciprocating engine-based Combined Heat & Power (CHP) plants. Offering ranges from supply of an engine through to turnkey installation of a multi-engine power plant. Our facilities deliver fuel efficiency, dramatically lower energy costs and help reduce carbon emissions. Carbon dioxide can also be recovered.

### Comeca Intelligent Motor Control Centres

Comeca UK formerly GEC, Alstom, Areva T&D the exclusive provider of Gemstart and manufacturer of Galaxis Motor Control Centres. Opening of two new manufacturing units in 2018 further enhances our ability to provide full Service and Support for our UK and Northern Europe Install base.

### E.ON Energy Solutions

As experts in Combined Heat & Power (CHP) we take the time to understand your core business drivers to shape an economically optimised energy solution that supports your long-term strategy. We're at the forefront of energy markets, driving change in response to global megatrends, including digitalisation, decentralisation of generation, the de-carbonisation of heat and power, and Industry 4.0.

### Fichtner Consulting Engineers Ltd

International engineering and project management. Provision of mechanical, electrical, process and chemical engineering design services. Strong focus on thermal combustion and full range of processes associated with power applications. Recent growth in renewable energy sources such as: solar, anaerobic digestion and onshore wind projects.

### Graham Hart (Process Technology) Ltd

Delivering high integrity heat transfer equipment for over 45 years. The company has a strong emphasis on Chemical/Process & Mechanical Engineering backed up by an advanced manufacturing facility.

### Otto Simon Ltd

Diverse engineering consultancy and project delivery organisation. Initial consultations, technical and commercial due diligence and front end design and definition. Feasibility studies through design, supply, erection, and commissioning services using in-house and licensed technology. Services for complete plants or upgrades. Procurement, construction management, start-up and operation & maintenance expertise.

### PM PROJEN

A multi-disciplined engineering, design and project management business working across a range of market sectors for a diverse mix of clients from SMEs to multinational blue-chip companies. Part of PM Group, a 2,200 strong, employee owned company operating across Europe, Asia and the USA.

### WorleyParsons Resources & Energy

A professional services company delivering, concept, prefeasibility and feasibility studies, FEED and Detail Engineering, Procurement and Construction. We also offer a wide range of advisory services. We support the chemicals, hydrocarbons, infrastructure and minerals & metals sectors over their full lifecycle, providing end to end services.

## Engineering, IT & process consultants

### ABB Ltd

ABB delivers high value consulting and lifecycle services to help companies in the global high hazard industries achieve operational excellence. Offering expertise in: inspection, integrity management, maintenance and reliability, obsolescence management, process safety, project services, late life and demolition, technical engineering, software and technical training. Benefitting customers by reducing risk, optimising cost and improving efficiency.

### BPE Design and Support Ltd

Progressive and innovative process engineering consultancy. Extensive process development and scale-up experience and process modelling and simulation is a core expertise. Early stage concept and feasibility studies as well as subsequent design, commissioning and qualification stages. Independent HAZOP chairing, ATEX/DSEAR assessments and SIL/LOPA studies.

### Gexcon UK Ltd

Safety and risk management and advanced dispersion, explosion and fire modelling. Unique expertise and shared knowledge on how to prevent explosion accidents. Carrying out accident investigations and dedicated facilities for physical testing. Ventilation and dispersion modelling also available. Hazardous area classification and quantitative and qualitative risk analysis and assessment.

### HFL Consulting Ltd

A unique blend of leadership, management, consulting, engineering and training services is offered to the chemicals industry. A forerunner in sustainable process safety management combined with proven business improvement

capabilities enables delivery of practical solutions to promote safety and efficiency in design, operation and maintenance of complex hazardous facilities.

#### **Intersolia**

Intersolia provides large organisations and small firms with a web-based platform designed to enable them to achieve COSHH compliance, and most importantly providing those who use chemicals as part of their everyday workplace activities with the critical safety information needed to safeguard their health and in doing so, protecting the business.

#### **Peak42 Ltd**

Process control, industrial automation systems and manufacturing analytics. A unique combination of automation projects, consultancy, and performance improvement services delivered by experienced teams. FEED, process control projects, legacy asset replacements, control room and operational technology, modern manufacturing analytics solutions.

#### **Siemens Digital Factory & Process Industries and Drives**

Productivity and efficiency requirements continuously increase in the field of process automation. A comprehensive range of process automation and Drives products as well as an award-winning range of training and support services.

### **Environment, health & safety risk management**

#### **AB Risk**

Human factors and process safety risk consultancy for process industries. Expertise includes safety critical task analysis, staffing assessments, alarm management, control room design, human factors engineering in capital projects, safety reports. Engineer with extensive human factors experience taking a systems view, assessing complex situations and developing practical and effective solutions.

#### **BakerRisk Europe Ltd**

Dedicated to help predict, prevent and mitigate hazards and explosions, fires and toxic releases. Specialising in process safety and risk management, we help clients understand their risks and offer cost-effective risk management solutions. Success is delivered through proven knowledge and experience, innovative research and unique engineering capabilities.

#### **Chemical and Industrial Consultants Association**

An association of independent consultants with extensive experience, many having worked in the chemical industry, across various fields. Provision of technical and business advice on almost every aspect of chemical manufacture, development, marketing and management.

#### **RAS Ltd**

Expertise that covers the full range of risk assessment and management services across; safety risk, business risk and environmental risk. Carry out Quantitative risk Assessments and Predictive & consequence modelling, through 'softer' risks affecting an organisation's reputation.

#### **RPS Group**

Provision of specialist consultancy to help those with responsibility for health and safety achieve compliance. With particular expertise in the chemicals sector, we provide support from plant development through to operation. Core services

include: ATEX/DSEAR, asbestos, BowTie analysis, CDM, COMAH support, fire safety engineering, functional safety, hazard identification, Legionella, occupation health and risk assessment/analysis.

### **Facilities, finance and other business services**

#### **ChemQuest Ltd**

Sourcing and procurement solutions for research and development. Expertise in biochemical, chemical, nanotechnology, cell cultures, equipment, consumables and sundries. Streamlining and simplification of importing and purchasing processes.

#### **Department for International Trade – Northwest**

Operational support for British exports as well as facilitating inward and outward investment activity. Support is given to first-time exporters or established exporters requiring more help with accessing more difficult markets or putting strategic alliances in place. Access to expert advice, trade services, training and events.

#### **Falck Fire Services UK**

A leading, global and dedicated emergency services provider and fire-fighting specialist to high risk industries. Tailored outsourcing contracts and a high quality integrated fire protection system. Incident fire training courses for emergency response teams, including practical scenarios. Consulting services specialising in fire and explosion hazard management.

#### **Grant Thornton UK LLP**

One of the world's leading organisations of independent advisory, tax and audit firms. We help dynamic organisations unlock their potential for growth by providing meaningful, forward looking advice. Provision of assurance, tax and advisory services. A dedicated Innovation practice that has an enviable track record of working with successful and dynamic companies to realise their ambitions for growth.

#### **Halton Borough Council**

World renowned research facilities such as Sci-Tech Daresbury and The Heath alongside many companies at the cutting edge of science, technology and advanced manufacturing. We oversee capacity in terms of land, buildings, people and business support creating a world class location.

#### **Pen Underwriting incorporating OAMPS**

Specialist Insurance services to high hazard manufacturing and haulage industries. Motor fleets, property, liability and transit policies. We help clients minimise risk through proactive risk management and a range of training and response services to assist companies in planning for and dealing with incidents and emergencies.

#### **Sci-Tech Daresbury**

We are a national science and innovation campus, and enterprise zone providing a range of office, laboratory and workshop accommodation for technology companies (from a desk to large laboratory and office units). Companies have access to a range of facilities covering material analysis, virtual design & simulation, and rapid prototyping.

#### **STFC Innovations Technology Access Centre**

A unique, fully equipped space for innovation, research and development. Providing flexible access to laboratory space, "hot labs" and

scientific equipment. Ideally suited to start-up companies, smaller and medium size enterprises and R&D team from established companies.

#### **TW Languages Ltd**

Provision of a professional and reliable multi-lingual translation service delivering high quality translations. We specialise in business, technical and scientific translations into 250+ language combinations. We provide certified translations for legal purposes. We are full members of the ATC & EUATC and ISO 17100 Translation Services certified.

### **Laboratory products, testing and services**

#### **Chilworth Technology Ltd**

Process safety testing services aimed at helping companies avoid major incidents such as fire, explosion or loss of containment. Combining process safety engineering and management expertise with the use of test data allows us to help clients achieve the most effective and practical approaches to safe and efficient processes.

#### **Envigo**

Envigo provides essential research services, models and products for biopharmaceutical, crop protection, and chemical companies as well as universities, governments, and other research organizations. Our business is founded on a dedication to customer service and the expertise and experience of our 3,800 people.

#### **Kindlow Safety Services**

Provision of process safety testing and consultancy. Understanding of needs to control hazards such as dust explosions, thermal decomposition and runaway chemical reactions. Fully equipped laboratory and experienced team help achieve your safe operating conditions. Other services include: HAZOP, aerosol safety, REACH testing and process safety training.

#### **Labtex Ltd**

Suppliers of leading laboratory products and process scale-up equipment. The list includes: HUBER liquid temperature control systems, DIEHM glass reactors to 100 l, PREMEX and AMAR high pressure autoclaves, POPE wiped film or short path evaporation and distillation, Nutsche filter dryers and many more.

#### **Smithers Viscient**

Environmental testing and regulatory services, carrying out environmental, consumer safety contract research and regulatory services. Plant metabolism, aquatic ecotoxicology, avian toxicology, environmental fate, honeybee and pollinator testing, endocrine disruptor testing, residue, analytical and product chemistry.

#### **XCellR8 Ltd**

A world leader in animal-free testing. Our GLP accredited laboratory provides ground-breaking in vitro safety tests for the chemical and personal care industries. We are passionate about delivering testing strategies that are both scientifically advanced and ethically sound. Our award-winning work is recognised at a regulatory level by the OECD and ECHA.

## Know your supply chains

### Legal & patents

#### Appleyard Lees LLP

Patent and trademark attorneys. Aim to obtain the best possible patent protection for clients. Experience of product clearance against competitor patents and in due diligence for mergers and acquisitions. Advice on licensing issues and collaboration agreements relating to IP.

#### Bawden and Associates

A legal firm providing professional services across all IP matters. Drafting and prosecution of patent applications, handling opposition and appeals in the EPO and in litigation in UK and international courts. Business led and strategic approach to generate assets of real commercial value.

#### E3 employment Law LLP

Specialising in employment law. The resolution of the full range of employment law and industrial relations issues to suit individual businesses. Delivering employment law advice which provides outstanding commercial value.

#### Marks & Clerk LLP

Intellectual property services, advising start-ups, SMEs and multi-nationals with large global IP portfolios. Comprehensive range of IP services covering patents, trade marks, designs and copyright. Obtaining protection worldwide, portfolio management, strategic and commercial advice, licensing, enforcement, due diligence, valuations and litigation.

#### RW Legal Ltd

Provision of pragmatic legal advice to companies in the chemical sector. Particular expertise in drafting and negotiating commercial contracts. Managing legal risk through early involvement to save time and resources in the long run. Competitive rates and flexible fees without sacrificing quality.

#### Squire Patton Boggs (UK) LLP

Global legal company providing legal, regulatory and advocacy assistance to the chemical and performance material industries. Expertise that emphasises areas that mean the most to industry such as environmental, mergers and acquisitions, commercial finance, construction, litigation, IP, public policy and international expansion.

#### Symmetry Law

Specialist law practice structured to provide "partner" level experts at "junior" level prices, with a focus on the 'high consequence' end of the spectrum. Legal services include: environmental, safety, regulatory, contracts, tax, construction, green incentives, litigation.

#### Withers & Rogers LLP

A leading UK and European intellectual property law firm with five offices including London and Munich. We offer a range of IP services including obtaining UK, European and worldwide patent or trade mark protection, the handling of contentious matters, advice surrounding licensing arrangements and issues including validity of patents and "freedom to operate".

#### WP Thompson

Intellectual property attorneys providing high quality advice to start-ups, SMEs or FTSE 100 companies. Team of experienced IP attorneys specializing in chemistry and life sciences, with first degrees and PhDs in these fields. Securing the most appropriate, cost effective and commercially valuable protection for your intellectual investment and innovation.

## REACH and chemicals services

#### Dr Knoell Consult Ltd

An independent service provider for the chemical and related industries. Globally the Knoell group has over 450 employees covering all aspects of regulatory compliance for industrial chemicals, agrochemicals and biocides: e.g., strategic planning, dossier preparation, exposure assessment, SDS preparation, and from REACH to K-REACH!

#### GlobalMSDS

A complete safety data sheet/literature and regulatory service for your entire product communications in any language, style and format required. HazMix® is a new 'pay as you go' web-browser product that is setting a new standard in SDS authoring. A Solutions service that also provides technical advice.

#### Intertek Regulatory Services

Health, environmental and regulatory services for implementation of chemicals management. Worldwide registration of chemicals, food contact compliance and notification, global chemicals compliance, design/optimisation of toxicological and eco-toxicological studies, hazardous substance management, EU cosmetic and biocidal products compliance, classification & labelling, SDS consulting.

#### Stewardship Solutions Ltd

Provision of chemicals regulatory services to organisations across many industry sectors and throughout the world. REACH and CLP compliance is a primary focus, and REACH registrations programmes are a core strength. The company has achieved significant savings in the costs of REACH compliance on behalf of many of its SME clients. Stewardship Solutions is a REACHReady-approved service provider.

#### The ACTA Group

Assisting companies with complex compliance issues under multiple regulatory schemes, including N American, EU, S American, Asian and Pacific rim regulatory programmes. Expertise in product approvals, product review and REACH compliance. Provision of REACH registration dossier submission, lead and joint registrations.

#### Yordas Group

Yordas Group is a leading provider of scientific, environmental, human health and global regulatory consulting services. They offer chemical regulatory support, expert scientific services and support on chemicals management and product stewardship, global hazard communication, hazard and risk assessment, analytical and (eco)tox testing.

## Recruitment

#### Adepto Technical Recruitment

A specialist engineering, manufacturing and scientific recruitment consultancy that focuses upon the provision of permanent staff and contract resource to the Chemicals industry. Established in 2015, Adepto has quickly become the partner of choice for many blue-chip and SME manufacturers, engineering companies and consultancies due to our deep knowledge of the industry, credibility and professionalism.

#### Airswift

Provision of international workforce solutions to the energy, process and infrastructure industries. Placing candidates into their ideal role; rehiring

a contractor from one project to the next; mobilising people around the world quicker; searching and selecting a senior executive to fill a key position; or implementing an agile workforce strategy.

#### Millbank

With over 30 years' experience providing recruitment solutions to major clients in the chemical sector, Millbank has an extensive database of experienced candidates and contractors ready to join projects across the region. A true recruitment partner, Millbank offers services ranging from contract and permanent placements through to fully managed services.

#### RMG

RMG is an award-winning headhunting consultancy with a difference - we make it our business to search and understand who's who in the Chemicals and STEM sectors and have the know-how to find talented people who will deliver lasting impact and add financial value to your organisation.

#### Science Recruitment Group

Experts in the recruitment of scientific, regulatory, quality, engineering and technical professional across all areas of the industry. Support in recruiting temporary, contract or permanent staff for your team.

#### TransitionPlus Ltd

Executive search for science based organisations, talent development, outplacement and career transition support. Experienced chair, NED, coach and business development consultancy. The "Plus" is to ensure that considerable attention and investment is given both before and after the recruitment to ensure that company culture and "fit" are clearly understood.

# Periodic Table brought to life at Catalyst!

2019 was designated as the International Year of the Periodic Table (IYPT) by the United Nations and on Tuesday, in this iconic year, Catalyst held a celebration to launch a unique Interactive Periodic Table Exhibit!

The brand new exhibit sponsored by the Royal Society of Chemistry and one of its special interest groups (CICAG) and supported by Less Common Metals from Ellesmere Port, is the very first exhibit to be installed as Catalyst commences a programme of major refurbishment following a grant from the Wellcome Trust and UKRI.

The event was attended by invited guests, trustees and patrons, pupils from Widnes Academy West Bank, Lunts Heath Primary School, Cowley International College and representatives from Runcorn WI Ferry Girls who contributed artwork for a Periodic Table Exhibition which will run alongside the installation until Christmas.

As he unveiled the exhibit, Professor David Phillips CBE, FRS, Past President of the Royal Society of Chemistry and Patron of Catalyst said "Catalyst is an inspiration. This is exactly the type of thing that we, the Royal Society of Chemistry should be supporting. It demonstrates the utility of chemistry for the world and it is in the site where so much of the chemical industry was founded and continues today. It is a very, very special place."

Catalyst CEO, Martin Pearson said "This is a really exciting time for Catalyst, the Inspiring Science Fund project is enabling us to redevelop some of the physical spaces within the building and also expand our audience to work with more groups in the local community. The Interactive Periodic Table is the first of 25 new exhibits that Catalyst will take delivery of over the next 6 months in addition to an inflatable dome which will allow us to present planetarium shows for schools and family visitors. We are very much looking forward to a positive future as this transformation progresses."

Chair of the Catalyst Trustees, Dr Diana Leitch said "The official opening of the new interactive Periodic Table exhibit on Tuesday was the culmination of a dream for Catalyst to be the first place in the UK to have such an exhibit and entirely appropriate for it to be based in the only science discovery centre in the UK specialising in the chemical sciences and also the only museum of the chemical industry in the UK. For it to be sited in a building which already existed as part of Gossages great soap works in 1869, when Mendeleev worked out the layout of the Periodic Table, is an added bonus. We cannot thank the Royal Society of

## PERIODIC TABLE OF THE ELEMENTS

H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	+	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
Fr	Ra	+	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Cn	Uut	Fl	Uup	Lv	Uus	Uuo
Uue	Ubn																

Lanthanide +	La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
Actinide +	Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr

Chemistry enough for co-funding this new exhibit which is part of our Inspiring Science Project funded by the Wellcome Trust and UKRI."

The exhibit will be a permanent feature in the ground floor gallery at Catalyst and will be available for people to investigate over the coming half term. In future any visitors who agree to Gift Aid their admission to Catalyst will automatically receive a 12 month pass to return again and see the developments as the refurbishment progresses.



Martin, Diana and David Phillips



consulting   
Safety Sustainability Profitability

Now  
part of  
**SLR** 

## Supporting sustainably safe and profitable operations.

Most would agree that good business performance is linked to good operational and process safety performance, built on sound practices and procedures.

At HFL Consulting, we provide a unique blend of leadership, management, consulting, engineering and training services, that makes us the natural partner of choice for many of the UK's most prominent chemical manufacturing and chemical using companies.

Find out more about how we can help improve your performance.

T 0161 304 5902 E [info@hflconsulting.uk](mailto:info@hflconsulting.uk) W [hflconsulting.uk](http://hflconsulting.uk)

People Plant Process Productivity

HFL Consulting is now part of SLR; a global leader in environmental and advisory solutions. Together, we provide world-class solutions and advice to our clients.