

A unique industry, with unique companies and unique news

Elements

In this issue:

- **Chemicals Northwest
2021 Award winners**
- *Special features on:*
Regulation
Engineering
Sustainability
*...and many more engaging
news items from our members*



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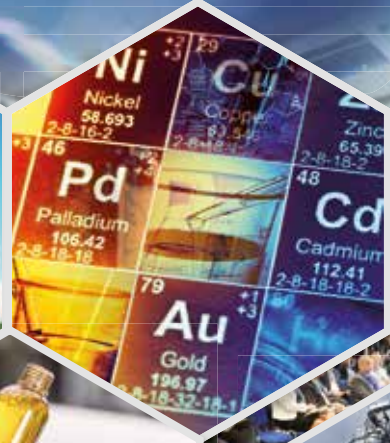


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Membership

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/>
2021 rates. (from 1st April 2020)

Micro corporate membership	(1 - 10 employees)	£445+VAT
Standard corporate membership	(11-100 employees)	£774+VAT
Large corporate membership	(100+ employees)	£985+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



Dear reader,

Welcome to the Spring edition of Elements magazine. We hope you are all keeping well and looking forward to a future which is looking much brighter than the previous 12 months.

The team at Chemicals Northwest have been busy over the last quarter planning the Chemicals Northwest 2021 Awards which were held virtually on the 25th March. A round up of these can be found on pages 6 - 11.

We have continued to run our monthly members meetings with topics varying from COVID to trade and business continuity as a result of our departure from the EU. Our virtual breakfast sessions have also continued to thrive. We recently launched a series of "hot topic" events in association with some of our member companies. These have included Brexit – How will it affect your IP in association with Appleyard Lees, Simplistically Sustainable in association with RMG and Getting a grip on functional safety in association with 6 Engineering. If any members have further topic ideas, please get in touch.

We have been more engaged on LinkedIn recently and ask member companies if they have any events, news, company updates etc which they would like Chemicals Northwest to promote then please email. The Elements magazine is now being separated into individual items so contributing member companies can promote their articles further. Chemicals Northwest are happy to help with any further promotional activity that members wish us to carry out.

We have also launched a careers page on the website which is a useful source of information giving a general round up of some of the interesting and helpful resources for those looking to start their careers in the industry, have young children and want to engage the future workforce, or even those who may be job hunting and would like some careers advice or training. We are actively encouraging everyone to get more engaged with this section of the website and send any items of interest to me to be promoted further.

We were also pleased to partner with the Growth Company to help businesses access and benefit from the Government's new Kickstart scheme – helping to give young people the opportunity to gain vital skills and experience that will boost their employability. Kickstart is a high-profile, £2 billion Government initiative delivered in response to the biggest global economic, societal and public health shock for decades. Read more about the scheme and how you can help on page 35.

We recently updated our website and homepage making it more user friendly and informative so please keep an eye on the pages for upcoming events, news, industry updates, careers information and the latest Elements magazine <https://www.cia.org.uk/chemicalsnorthwest/>

Take care, stay safe and continue to look after those around you.

Alex Abraitis - Member Services and Events Manager

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.

Partner events - Over the years CNW has focused on a range of highly topical and relevant business issues. We run these focussed events in conjunction with members. Technical, regulatory and operational insights have been delivered by experts in their fields. These events ensure good practices are shared and all attendees 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 has an ever increasing membership, with over 1500 members now connected. The group provides the opportunity for chemical industry professionals to share ideas and knowledge. There is also the CNW LinkedIn company page which provides a forum for information sharing between CNW and our members.

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.



2021 Awards

Chemicals Northwest 2021 Awards

We received a fantastic array of award citations for the 2021 Awards. The citations brilliantly showcased the amazing work our industry delivered in what was a truly unique and challenging year.

The ongoing Covid pandemic meant that we could not hold the planned Awards dinner at the Hilton Manchester on the 25th March. Nevertheless, our determination, fully supported by our amazing event sponsors, was to recognise the achievements of our nominees via a virtual ceremony on the same date as the planned ceremony. Feedback since the event has been very positive and we hope that those able to “tune-in” found the event enjoyable? The following pages feature a roundup of our winners, highly commended and some photos from the event. Whilst we did enjoy the experience of hosting a virtual Award ceremony, we look forward to seeing you back in Manchester, hopefully at the Hilton for the March 2022 Awards Dinner. We want our normal back!!



Our host for the virtual event was Reverend Richard Coles...

Reverend Richard Coles is a broadcaster, writer, and Church of England priest. Known for appearances on everything from Have I Got News for you to Strictly Come Dancing, he first found fame as one half of the 1980s band, The Communards. They enjoyed three UK Top 10 hits, including the biggest-selling single of 1986: Don't Leave Me This Way. The multi-talented Richard has turned his hand to acting, penned music for film and TV, served up advice as 'agony uncle' on BBC London and won a Sony Gold as presenter of The Mix on Radio 5 live. With a successful media career already established, Richard trained for a priesthood in the Church of England - becoming what could only be described as a 'very modern' vicar.



Other sponsors for the Chemicals Northwest 2021 Awards...



CHEMUK 2021 - Headline Sponsor

CHEMUK 2021, running on the 15th & 16th September, is now established as the UK's annual chemical industries supply chain expo and 2-day speaker programme, bringing together attendee groups from all segments of the industrial chemicals, formulated products, as well as from biochemical & process industries. The event is free to attend.

www.chemicalukexpo.com



As a full-service expert in powder processing for over a century, Hosokawa Micron manufactures market-leading containment and processing equipment and systems, including downflow booths, gloveboxes, isolators, mills and mixers. Customers include some of the largest blue-chip companies in the world from sectors such as chemicals, pharma, nuclear, food and cosmetics.

www.hosokawa.co.uk/



Mann-Tek are the World's leading producers of Dry Disconnect and Safety Breakaway couplings. They manufacture in a wide range of special materials to suit almost any chemical transferred by Sea, Road or Rail today. Their couplings are made to the highest possible standard and are recognised around the globe as 'Best in Class'.

www.manntek.se

Sustainability Award 2021 sponsored by -



Formed on 1 July 2015, INOVYN is a vinyls producer that ranks among the top three worldwide. With an annual turnover in excess of €3.5 billion, INOVYN has more than 4,300 employees and manufacturing, sales and marketing operations in eight countries across Europe. Annual production volumes are in excess of 40 million tonnes. www.inovyn.com/

Winner... MOF Technologies Ltd

The company produce metal organic frameworks (MOFs) which are super adsorbent products with a wide range of sustainability benefits. Mechanochemistry allows the continuous chemical reaction of reagents directly in solid form without the need to use, heat, recover and recycle large quantities of toxic solvents. This provides two key benefits: reduced costs and a dramatically reduced environmental impact from the manufacturing process. Additionally, MOFs intrinsic properties makes them the ideal materials to assist in transitioning to a greener tomorrow including their application in carbon capture, heat adsorption, hydrogen storage or battery applications. A patent protected technology that has enabled the company to take MOFs from concept to high-performing, real-world products for CO₂ capture, toxic gas storage and fruit preservation, the real advantage is the ability to produce at scale. www.moftechnologies.com

HIGHLY COMMENDED – ABB

There was a high level of sustainability embedded throughout the supply chain within ABB's submission. ABB constantly considered both customers as well as its own commitment to sustainability. Particularly noteworthy was ABB's commitment to the hydrogen economy and the electrification of its own fleet of cars by 2025. Not all big companies lead in this way and it warrants recognition. <https://global.abb/group/en>



Charity of the Year Award 2021 sponsored by -



Valtris Specialty Chemicals, headquartered in Independence, OH, is a leading manufacturer of specialty chemicals, primarily used as additives in the production and processing of plastics, and chemical precursors used in coatings, flavor and fragrance, personal care and pharmaceutical applications. Operating nine facilities globally, including Eccles in Manchester, Valtris offers an unmatched range of complimentary products for the specific needs of a diverse customer base. www.valtris.com/

WINNER... Catalyst Science Discovery Centre & Museum

Supported by the INEOS Community Fund, Catalyst restarted MindLab in Summer 2020. MindLab provides vital mental health support in the local community. Every week participants were able to take part in group counselling and had access to laboratory, education rooms and the interactive museum exhibitions all in a Covid compliant way. Three different five-week programmes were delivered on anxiety, resilience, and wellbeing. The team at Catalyst explained that the award would be recognition for the local community, their own ground-breaking vision and the staff, volunteers and trustees that never gave up. The judges agreed that Catalyst were worthy winners and received a £1000 donation from the category sponsor Valtris www.catalyst.org.uk

HIGHLY COMMENDED – Chemistry with Cabbage

Chemistry with Cabbage is an amazing supporter of the community and schools in the area. Access to schools in 2020 has not been straightforward so Chemistry with Cabbage widened their scope by publishing ideas on the Royal Society of Chemistry website, a vital resource for STEM teachers. Chemistry with Cabbage have been working with Scout leaders to develop experiments that can be done "safely" with troops easily at home. This engagement is likely to result in a special invitation to a Jamboree in the summer where thousands of young people will discover the joy of chemistry. Highly Commended in the charity category has not previously secured a financial award but on this occasion, Valtris made a special award of £500 in recognition of the continued and unrelenting enthusiasm from Lorelly and the team in encouraging children from all backgrounds to engage with chemistry. www.lorellywilson.co.uk



Supplier to the Chemical Industry Award 2021 sponsored by -

CIA

CHEMICAL
INDUSTRIES
ASSOCIATION

The Chemical Industries Association (CIA) is the organisation representing chemical and pharmaceutical companies across the UK. Their activities are split between influencing the policy agenda, sharing best practice, and the provision of advice and services to their members. They take the issues that matter to their members and campaign to ensure that industry operates safely, profitably and with due care for the interests of future generations. www.cia.org.uk/

WINNER... SLR Consulting Limited

The pandemic forced all in the industry to reappraise practises and look again at guidance for preventing issues that might impact on colleagues, downstream users and the environment. SLR Consulting have led from the front this year. They provided advisory, sustainability and environmental consultancy services to chemical businesses alongside bespoke training services. SLR provide a great service to customers, raising their profile leading to new business opportunities. Working through their Virtual Learning Environment (VLE) SLR provide access to knowledge banks, videos, reference materials and blended learning programmes. SLR updated guidance on Containment Systems for the Prevention of Pollution and assisted CIA in updating the OBRA guidance. Chemical Industries Association said that SLR's expertise in the risk assessment process for occupied buildings potentially impacted by fires, explosions or toxic release was critical and helped develop an excellent document well received by members. Training and events this year from SLR have reached over 300 companies and 4,000 individuals. www.slrconsulting.com



HIGHLY COMMENDED – Actikem

Actikem are a toll chemical manufacturing company in Warrington providing specialised liquid and powder blending, repackaging services and other bespoke solutions for customers. Actikem's entry included evidence of Corporate Social Responsibility being fully integrated into the business. The company rank in the top 5 % of all companies from EcoVadis business sustainability ratings. Actikem relentlessly focus on customer feedback and respond quickly to requests creating solutions alongside high quality products. They are committed to supporting apprentices in the industry and already in 2021 Actikem have recruited an Apprentice Laboratory Technician and an Apprentice Manufacturing Technician. Actikem adopted digital marketing and e-commerce techniques to connect with customers during the pandemic with plans to build the platform further. www.actikem.com

Operational Excellence Award 2021 sponsored by -



CF Fertilisers are a local manufacturing company producing fertilisers for UK farming and food production. As part of CF Industries, a leading global fertiliser and chemical company, the North West complex is one of nine manufacturing and distribution facilities. Safety, operational excellence and sustainability are a key focus with all products holding full Carbon Trust accreditation. www.cffertilisers.co.uk

WINNER... 2M Holdings Ltd

Most impressive to the judging panel was 2M's drive to deliver a new manufacturing process making hand sanitiser at the beginning of the pandemic within an incredibly narrow timeframe. The panel said it must have been a mammoth challenge but that the company stepped up. To enable all of this to happen 2M needed to establish sales lines, arrange logistics and then to set up a production facility itself. The new manufacturing facility measured six acres, to construct that in the timeframe, while working in a Covid secure environment, would have been particularly tough. The company illustrated the 'good' that the chemical industry can achieve - Chemistry really does save lives. To top it all 2M donated some of their production of hand sanitiser to front line health workers, emergency services, education facilities and those working in critical retail environments. www.2m-holdings.com



Manufacturing Company of the year Award 2021 sponsored by -



PM PROJEN is a multi-disciplined Engineering Design and Project Management business founded in 1978. They work across a range of market sectors for a diverse mix of clients. Their core business involves all elements of the project lifecycle from project inception, right through the detailed design and construction phases. www.projen.co.uk/

WINNER... 2M HOLDINGS LTD

At the outbreak of Covid-19, 2M moved quickly into sanitizer production. "Idea to manufacture in 10 days" was the goal. The company converted a six-acre site into a manufacturing facility. They prepped blending stations to personal care hygiene grade. Within 2 weeks of first production 20,000 bottles had been donated. Requests were fulfilled within 48 hours. A proportion of production was donated to frontline healthcare workers and other emergency staff, but also to schools for teachers, Royal Mail staff, care homes and people working in food banks. 2M explained the project enhanced Group capabilities and that new manufacturing facilities had been created. An amazing effort from a company that had not previously manufactured sanitizer. "Chemistry is more than just an industry, it's fundamental in saving lives." www.2m-holdings.com

HIGHLY COMMENDED – Libra Speciality Chemicals Limited

2020/21 had seen record production, up +30% output year on year for Libra. Libra manufactured 5,000 tonnes of hand sanitiser for the UK Government and the wider market with new plant investment leading to increased capacity. Libra has always prided itself on its responsiveness, reliability and sharp customer focus. Base cleaning chemicals are part of Libra's core business. Their newly invested Betaine plants produced 10,000 tonnes from a standing start in 2019/20. Libra also enjoy an excellent site safety record with the manufacturing site having zero waste streams and right first-time quality levels exceeding 95%. Record total production volumes were achieved across all production not just sanitizer and in a very challenging year. Further site investment is scheduled for 2021 including new tanker loading and increased reactor capacity. The focus for Libra going forward is greater supply in UK where site manufacturing volume could grow a further 40%. Growth already contracted into 2021 will deliver another very positive year for the company. <https://librachem.co.uk>



Innovation Award 2021 sponsored by -



HFL Consulting is now part of SLR; a global leader in environmental and advisory solutions. Together, they provide world-class solutions and advice to their clients, cementing over 20 years of specialist process safety knowledge and experience, to a bigger, expanded service offering. www.slrconsulting.com

WINNER... Bitrez Limited

Bitrez Ltd is one of the UK's leading manufacturers of specialist polymers and chemicals, used by world class companies across the globe. Bitrez's winning Curaphen products are phenolic resins employed in the manufacture of specialist coatings and as a resin used in the generation of composites for light weight components. The Bitrez model is driven by regulatory and market demands and a lower carcinogenic impact that modern coatings deliver is warmly welcomed. Bitrez's highly skilled R&D department worked to develop a formula to reduce formaldehyde levels. A brand-new process technique was required alongside extensive research, development, evaluation and trials involving cutting edge/innovative chemistry. The result was a series of Curaphen grades not classified as carcinogenic yet offering performance levels equivalent to conventional grades. The development of Curaphen led to a doubling of capacity requiring 24/7 UK production. Curaphen is a major success for Bitrez and is established as the best-selling Low FF phenolic resin on the market. www.bitrez.com



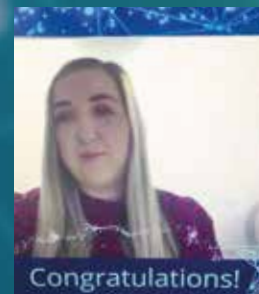
Young Talent in the Chemical Industry Award 2021 sponsored by -



SRG - As a global STEM network with over thirty years of experience, they apply their specialist knowledge and expertise to a full spectrum of roles and talent solutions. They mirror the full product life cycle across the Pharmaceutical, Biotech, Medtech, Chemicals, FMCG and Food & Drink industries within the scientific, clinical and engineering disciplines. Their success comes from talent and connections, that's why they put people first. Their focus on building lasting relationships with clients and candidates to help them reach their potential. www.srgtalent.com

WINNER... Anna Holroyd, Libra Speciality Chemicals

Anna has enjoyed a brilliant year with Libra. Still new to the industry and just 2.5 years since graduation, Anna has risen quickly at Libra to the position of International Sales Manager. Anna has established an impressive track record, taking initiative and using sound commercial business sense. Anna has introduced gold standard reports to assist the entire team in managing relationships with key customers. Anna has led the sales team strongly and from the front. Weekly meetings ensured everyone remained aware of the progress on key projects and on what more needed to be done. Anna devoted time to devote to new members of the team to ensure they quickly integrated and contributed to the wider effort. Carry on Anna, you're clearly a star. <https://librachem.co.uk>



HIGHLY COMMENDED – Henry Truman, GlaxoSmithKline

Henry is a 3rd year engineering apprentice at GSK Ulverston. Henry's Managers are delighted that he is performing easily in excess of that level. In 2020, Henry received the GSK Ulverston Apprentice of the Year award and has gone from strength to strength. Lockdown initiatives included a major project within the supply chain team, outside of his direct field but Henry made a valuable contribution. At the end of the first lockdown Henry was quickly called back onto site, reflecting the valuable contribution he was making. Henry's can-do attitude makes him a role model for the other apprentices and colleagues. Henry displays all of GSK's Values and Expectations...Many Congratulations Henry. www.gsk.com/en-gb/home

HIGHLY COMMENDED – Jacob Wylde, Libra Speciality Chemicals

Jacob joined Libra Speciality Chemicals as a placement student and is still just 21 years of age. Initially recruited because of his excellent marketing skills Jacob has established himself as a key part of the commercial team. Work on procuring a new company website, leading on social media marketing and developing the company's new marketing initiatives were all signals that the management team have complete confidence in Jacob's ability. Congratulations Jacob. <https://librachem.co.uk>

Health & Safety Award 2021 sponsored by -



For nearly eight decades, Livent has partnered with its customers to safely and sustainably use lithium to power the world. Livent is one of only a small number of companies with the capability, reputation, and know-how to produce high-quality lithium compounds that are helping meet the growing demand for lithium. <https://livent.com/>

WINNER... Dron & Dickson

Dron & Dickson have consistently focussed on a continued approach to mental health and wellbeing and the direct correlation to safety performance. The company provided all employees with access to online HR and wellbeing advice, extending that offer to families. The company introduced lockdown catch-ups for staff in an effort to avoid isolation issues. WhatsApp groups were encouraged to support all and to look for signs of team members needing further assistance. The company supported Mental Health Awareness Week and encouraged the sharing of examples of "acts of kindness". Mandatory online training for home workers was provided to ensure all exercised best practise on how to work effectively from home. This was not to boost productivity but to ensure all understood how best to balance home and work commitments. Dron & Dickson delivered online webinars on mental health concerns by sharing tips and best practise. All staff received weekly messaging from the Managing Director who focussed more on wellbeing than output. As a result, Dron and Dickson's safety record remained excellent with levels below industry average. <https://drondickson.com/Home/Start.aspx>



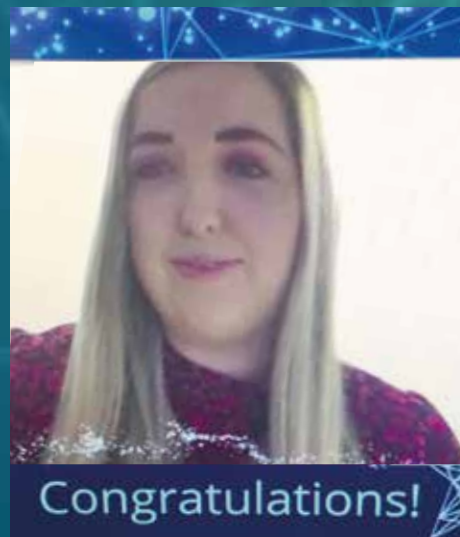
International Trade Award 2021 supported by -



The UK's Department for International Trade is the specialist Government department that secures UK and global prosperity by promoting international trade and investment, and championing free trade. DIT helps UK-based companies access overseas markets to achieve their export goals and overseas firms in bringing high-level, sustainable investment to the UK. www.gov.uk/government/organisations/department-for-international-trade

WINNER... Libra Speciality Chemicals

Libra recorded a 15% growth in key products throughout 2020 delivering growth of over 7%. Not being able to meet directly with customers Libra adopted "virtual" methods of customer engagement. The company adapted their business model to provide broader customer support including technical, regulatory, market knowledge and logistical support. The team attended the virtual trade shows Sepawa and Chemspec Europe taking advantage of the virtual platforms on offer. Desk research on new markets and trends was also undertaken. Libra worked closely with suppliers and customers to manage flows, this was particularly challenging as demand for materials used in hygiene and cleaning applications had significantly increased. Internationally the company appointed 18 new global distributors breaking into new markets including Russia and Canada. Libra are an SME and during this period they exceeded their in-house customer retention rate. On top of all of the 2020 business challenges Libra have continued to invest in the Manchester site. <https://librachem.co.uk>



Engineering Firm of the Year Award 2021 sponsored by -



Chemicals Northwest is the industry-led, chemical cluster support organisation for the North West and surrounding areas chemical sector, the largest in the UK. We are funded by our members and owned and supported by the Chemical Industries Association. We are a membership organisation that supports and promotes the interests and activities of the chemistry-using industries. www.cia.org.uk/chemicalsnorthwest

WINNER... Projex Solutions Limited

Projex Solutions are an EPCM company that offer safety, process, mechanical and project engineering. Last year Projex delivered an innovative project for a chemical manufacturing company based in Manchester. Projex offered engineering support to assist the onsite team to design, build and commission a specialty chemical processing plant. The project introduced a high degree of automation, improved the scale efficiency and repeatability to expand manufacturing capacity. Projex Solutions delivered front end engineering design through to installation and commissioning of the tank farm, pipe bridges, structural steel platform and scrubber. They overcame challenges within this project and adopted a non-traditional approach throughout due to time constraints including the design phase of the project. The client was happy, saying, "Projex Solutions were instrumental in supporting and enabling the delivery of our new 32,000 tpa speciality chemicals plant. The Projex team demonstrated impressive flexibility and adaptability working closely with ourselves to deliver the project. The outcome exceeded expectations." www.projexsolutions.co.uk





RISK & HAZARD MANAGEMENT

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

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



Safety Risk



Business Risk



Environment Risk

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

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

Delivering on Training Requirements in a Virtual Setting

Last year we spoke about managing major accident hazards at high hazard establishments in the face of COVID-19, but at the time we couldn't have predicted that the "temporary" measures associated with the pandemic would still be in place almost a year on. It has been a firm standpoint of the COMAH Competent Authority that regulatory activities must continue despite the pandemic, with many sites having to carefully think about how to demonstrate that they can maintain safe operations while adapting to reduced manning and other COVID measures.

Overall, it feels like our industry has risen to the challenge and adapted well, even where we thought that some process safety activities would be impossible to achieve. From our perspective, this in particular means HAZOP and other hazard identification studies, ALARP sessions and information gathering for assessments and reports. It was once unthinkable that any of these processes should be carried out remotely, but where needs-must, we have adapted well and managed to maintain the necessary high standards of work. That's not to say that all work going forward should be carried out remotely; we still recommend that studies are consolidated by an onsite review once things return to normal. On the whole, though, industry has learnt a lot about maintaining the highest standards of major accident hazards in a more virtual world.

The same goes for training. It has been great to see our clients embracing online training in favour of delaying face-to-face sessions until more 'normal' times. By adopting the most suitable video conferencing platforms, we have been able to adapt our workshop style of training facilitation and feedback has remained positive. There have been some lessons learnt along the way that we look forward to implementing as we widen our training capacity in 2021.

Limiting delegate numbers to smaller groups helps greatly in keeping up the energy needed for a productive training session. Facilitation is largely about engaging with delegates to make the most of their experience and make sure that the key messages stay relevant to them. This is easy when speaking

face to face with delegates, when you can use body language to gauge feelings and change direction. Technology can become a barrier to communication but working with smaller groups can create a more comfortable atmosphere with more open discussion which ultimately helps delegates get the most from their course.

Shorter sessions have also been of great benefit. When the time and expense associated with travel is limited, there is more flexibility in session start and end times, which has worked to the delegates' advantage. Staying focussed on a video conference all day is tough on anyone, not to mention operators and technicians who would normally spend a lot of their time in the field. By limiting online training sessions

to multiple shorter sessions, engagement has been positive and more consistent.

Successful training relies on a balance of delivery techniques that address the different learning styles of the delegates. Online video conferencing platforms no longer limit trainers to Powerpoint presentations and a lecture style of delivery. Using break-out rooms for small groups of delegates helps to engage those with more active learning styles by allowing them to participate in activities and apply what they are learning to practical situations from the outset. For those with more visual and aural learning styles,

shared screens, whiteboards and chat functions all help to ensure that information is delivered in a way that benefits the individual and makes it easier for trainers to quickly adapt to the needs of the delegates.

Overall, it can be tempting to shy away from online training delivery in favour of delaying courses until they can be delivered in person. However, online methods of delivery can be quickly adapted to suit the organisation and the individual, which can result in positive training outcomes. We will be continuing to implement what we have learnt as we deliver online training to our clients through 2021. By bearing these lessons in mind, we can confidently deliver our bespoke courses in all aspects of process safety, as well as our new offerings of the Cogent Process Safety Management for Operators (PSMO) and Bowtie use and application, ultimately allowing operators to continue to demonstrate that they can maintain safe and efficient operations in this 'new normal'.

Jenny Hill & Carolyn Nicholls - enquiries@ras.ltd.uk



Brexit and Intellectual Property (IP) rights

The UK left the EU on 31 January 2020. A Transition Agreement between the UK and the EU meant that for the rest of 2020 there were few real changes to intellectual property rights. On 31 December 2020, the Transition Agreement came to an end with an ongoing trade agreement taking its place. In this article, we summarise the key consequences of Brexit for intellectual property rights.

Patent Rights

A patent is an exclusive right to prevent others from using your invention without your permission. There is no change to patent protection in Europe as a result of Brexit. The European Patent system is independent from the EU and has always included non-EU members such as Switzerland and Norway. The UK will remain a full Member State of the European Patent Convention and patent protection in the UK can still be obtained via a European patent. Thus UK-based European patent attorneys can continue to represent clients at the European Patent Office.

From 1 January 2021, new filings for UK patents will require an address for service in the UK, where previously an EU or EEA address for service could be used.

European Registered Trade Marks

Trade mark registrations usually cover rights such as brands and logos. Before Brexit, businesses were able to obtain UK protection by applying for EU trade marks (EUTMs), which are European rights covering all EU member states. However, following Brexit, EUTMs will no longer cover the UK. Thus, from 1 January 2021, businesses wanting to protect their brands and logos in both the EU and the UK will need to file separate applications in both the EU and the UK.

All existing EUTM registrations contained on the EUIPO database (and international trade mark registrations covering the EU) at 31 December 2020 were automatically cloned by the UKIPO to create 'UK comparable rights'. These new 'comparable rights' will only apply to the UK, will in due course require a UK address for service and can be enforced, challenged, licensed or renewed completely separately from the remaining EU right.

Where a EUTM application was pending before the EUIPO on 31 December 2020, it is necessary to file a parallel UK application to cover the UK within a period of 9 months from the end of the transition period. A UK address for service is required.

Registered Community Designs

A registered Community design (RCD) gives its proprietor the exclusive right in the EU to make, use, sell, import and export any product embodying or bearing the design. As with EUTMs,

RCDs are EU rights and following Brexit, this EU right will no longer provide protection in the UK.

The position for RCDs is like that for EUTMs. Existing registrations were cloned automatically to create corresponding

UK rights and pending applications will need to be refiled to provide a parallel UK application. Going forward, separate UK filings will be required alongside any EU applications in order to obtain protection in the UK.

Unregistered Designs

Previously, businesses were also able to obtain protection for designs via EU unregistered community designs (UCD). This right gives protection for designs for three years from the first disclosure within the EU. The UK has now created its own version of this right, covering only the UK.

Alongside UK continuing unregistered design rights, there are also other means to protect designs in the UK after the end of the transition period without a registration including the new Supplementary Unregistered Design (SUD). However, the interactions and qualifying requirements of the various unregistered rights are complex, and we would always recommend that you consider registering designs.

Copyright

At present, there are unlikely to be many changes to copyright law, as copyright is a national right provided separately by each individual country. In addition, both the UK and EU are members of international agreements such as the TRIPS agreement. However, differences may emerge in future as UK law develops separately to EU law.

Summary

In summary, there are a number of changes to existing IP rights, as follows:

- European Patents – Not affected
- European Registered Trade Marks – Protection Continues – UK Rights cloned
- European Registered Community Designs – Protection Continues – UK Rights cloned
- Pending EU Trade Mark/Design Applications – Backdated Filings possible for 9 Months

However, there are provisions in place to ensure that holders of IP rights are not disadvantaged.

To stay up to date with any changes to IP rights and to find out more information, please visit <https://www.appleyardlees.com/brexit/>, or contact Kate Hickinson at kate.hickinson@appleyardlees.com



**INTELLECTUAL
PROPERTY RIGHTS**

The ghosts of IR35 past: lessons learned

IR35 has been delayed for the last time. Mike Herdman looks at what we can learn from previous preparation to get ready for the final deadline? We know it is now inevitable that the deferred deadline for IR35 reform in the private sector will be 6 April 2021. Despite the current pressures on the economy through COVID-19 and Brexit, and the continuing misalignment that the delay brings to the public and private sectors, the date is set. But this doesn't have to be daunting news.

Businesses have the benefit of hindsight considering the 'dry run' up to the previous deadline, and most know how much work is involved in preparing for the new rules. One of the overriding messages we heard from clients from last time is 'we wish we had more time' - and now we do.

It's critical that businesses re-focus energy to allow themselves adequate opportunity to get ready as, last time, not everyone appreciated how complex and time-consuming preparations could be.

The deferral of the off-payroll working legislation (IR35) gave a welcome respite for many businesses, giving them more time to prepare and to reflect on what they had done to date.

Lessons learned from IR35 past

We spoke to people across our business to gather the lessons learned by clients as we prepared for the last deadline. Here's what we heard.

"Not engaging wider internal stakeholders at the outset became an issue. We should have ensured there was an understanding of the requirements and potential impact on their business unit. We found it was also important to communicate changes to processes and policies to a non-tax technical audience."

"Many clients found it more complex than expected in terms of applying the rules and the time needed to understand them."

"The variety of off-payroll engagements was often

underestimated, which then required separate reviews."

"Companies often took for granted that their agencies would be able to manage/handle the changes, but this was not the case and required client/adviser intervention and further support."

"I was wrong to assume this is about preparing for IR35 changes only. In one case, we uncovered a number of self-employed individuals that they weren't aware of, which potentially results in a historic issue."

There's not long to go

Here are our top tips for focusing your time over the next few months:

- Ensure you fully understand the impact of the legislation change
 - Communication, communication, communication - early and often - with internal stakeholders, and with contractors
 - Ensure there is input at an early stage from all relevant teams, including tax
 - Identify the contractor population – this can be more challenging than you may think
 - Revisit the process adopted previously and ensure it is compliant. Is there a better way?
- Don't assume the agencies you use have this covered
- Remember it isn't just about doing assessments
- Consider how you will deal with contractor disputes

While in many cases we're not starting from scratch, no-one should underestimate the time and resource needed to implement what's needed ahead of the legislation coming into force. There are a lot of things to think about over the next three months and beyond.

For more information on how to prepare your business for IR35, discover [our employment status services](#) or contact Mike Herdman.



**Mike Herdman, Director,
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Synthomer Invests in Battery Testing to Accelerate Cell Material Innovation

Synthomer Plc has invested in battery testing facilities to accelerate materials development for lithium-ion battery cells and other energy storage technologies. The facility was installed in 2020 at the company's UK Accrington site and is now fully operational, allowing the manufacture and test of batteries containing Synthomer's polymer and inorganic materials.

A growing number of battery manufacturers are taking advantage of Synthomer's Litex LB styrene-butadiene rubber (SBR) binders to improve the performance and lifespan of their anode systems. Synthomer is innovating further to offer enhanced solutions for the most demanding of transportation, storage and portable device applications, whilst reducing the environmental impact of battery processing.

Synthomer is also researching novel active materials for next generation battery technology through its wholly-owned inorganic chemical subsidiary, William Blythe. With over 175 years' experience in chemical synthesis, William Blythe possesses a range of manufacturing capabilities that can be utilised in the production of the rigorously defined, complex compounds that are required to deliver step changes in battery performance.

This new investment demonstrates Synthomer's commitment to market led and strategic innovation, as well as enabling growth in sustainable markets such as energy storage. We look forward to working with current and future partners in our new facility.

Commenting on the new capability Mike Butler, Business Development Manager at William Blythe, said "The capability to test electrochemical properties of materials is a step-change in William Blythe's ability to serve cell manufacturers. In recent years we have gained significant experience in the synthesis of a range of battery materials, with a particular focus on niche and graphene oxide based applications for lithium ion technologies and beyond. "

"This facility marks an important step in our ongoing work in ensuring we offer technology leading battery binders to the market" commented Tom Castle, Business Development Manager at Synthomer. "It will play a key role in supporting the continued development of next generation binders that meet our partners needs for high-performance batteries with superior energy capacity, lifespan and charging rates."

To learn more about Synthomer's Litex LB polymer binders please contact Tom Castle. For details on William Blythe's active material program please contact Mike Butler.

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The A, B and C's of sustainable Polymers

The last edition of Elements featured an overview of Paul Jones (FRSC), Managing Director, Head of R&D & Co-Owner at multi award winning company Bitrez. Launching two more successful businesses, Anacarda and Chemical Processing Services, Paul leads the way in designing and patenting products to bring to market, interlinking the three businesses ensuring sustainability and REACH compliance are at the core of all three. This article covers the latest developments and awards recently achieved by Paul and his team.

Paul is recognised as being a one of the country's most dynamic forward-thinking business leaders, having recently won another plethora of awards including the 2021 Business World CEO Entrepreneur of the Year. For the second consecutive year, Paul has been awarded CEO of the Year for Manufacturing by CEO Today Magazine 2021 and most Innovative Management Professional of the Year by CorporateLiveWire Innovation and Excellence Awards. Paul has further been recognised by The Manufacturer Magazine as one of 2020's Top 100 achievers in the country for Innovation in Manufacturing.

Anacarda

Anacarda is a niche speciality polymer resin supplier, designing and developing sustainable Bio based curing agents for epoxy resins derived from cashew nutshell liquid (CNSL). Working in the transport and construction sectors as well as industrial protective coatings and anti-corrosion protection they hold partnerships with the market leading companies to the marine coatings sector with products being utilised worldwide. Paul is at the forefront of generating new cutting-edge products which led him to develop Cardamine, a brand-new chemistry which utilises the sustainably sourced CNSL. Replacing traditional Phenalkamine curing agent attributes, Cardamine offers sustainable properties such as faster cure rates, fire resistant technology and reduced toxicity. www.anacarda.com/

Bitrez

Bitrez is one of the UK's leading companies in designing, developing, and manufacturing multi award-winning polymers and speciality synthetic resins. Trading for nearly 40 years, running 24/7 production over two sites, they offer an extensive range of products under a recognised brand serving a multitude of industries.

Curaphen, a Bisphenol A (BPA) free phenolic resin which Paul led the R&D of is a worldwide bestseller used by composite and packaging companies in the food and drink industry globally. Curaphen has won a host of awards including the

2019 Queens Award for Enterprise in Innovation and the Chemicals Northwest 2021 Innovation Award.

Paul also revolutionised Curamine, the world's first a non-toxic Ketamine alternative coating. Curamine is sold to some of the world's leading specialist coating companies and Bitrez currently hold 100% of the European market.

Bitrez offers a multitude of resinous products covering a huge array of industries from flame retardant thermoset resins to formulated products for the diamond wheel industry. Recent awards have included the Composites UK Industry 2020 Award for Health and Safety and Innovation in Materials, Make UK 2020 North West Innovation Award and Manufacturing Innovation from Insider Media Made in the North West Awards. www.bitrez.com

Chemical Processing Services Limited (CPS)

Chemical Processing Services is a newly launched enterprise inaugurated by Paul utilising his 35 years in industry. CPS covers the lifecycle of specialist polymers and chemicals from design to manufacture, incorporating the full spectrum of industries which use chemicals. Providing a tailor-made service, CPS can help bring products to market including navigating the regulatory and legal aspects.



Wanting to find an alternative, safer, REACH compliant substitute to traditional Mannich base epoxy curing agents, Paul invented Permature, the world's only REACH compliant Mannich base resin. Discarding traditional attributes of conventional curing agents such as toxicity concerns, Permature provides the only non-toxic, non-carcinogenic alternative product which can be utilised by a multitude of industries worldwide which use Mannich reactions.

Furalkamines, are a newly launched curing agent chemistry revolutionised by Paul and are globally patent pending. Furalkamines, sourced from sustainable crop sources (corncoobs, sugar cane, etc) produce furfural, then converted to furfuryl alcohol. The alcohol has green characteristics but is toxic. Paul's cutting-edge chemistry polymerised the alcohol to make poly furfuryl alcohol polymer (PFA) which could then be managed to form a Mannich base without the toxic component of furfuryl alcohol. www.cps-consultancy.com

Summary

Paul is at the heart of each business and leads the way in inventing and designing new products based on demand. If there is a health issue with a chemical, Paul is at the cutting edge in designing a safer alternative. He ensures that Anacarda, Bitrez and CPS have reactive business models which utilise dynamic cutting-edge chemistries to ensure sustainability is at the heart of each company. This results in the creation of products that protect human health and the environment, and his achievements are rightly being recognised worldwide.

Is it time to 'really' put Sustainability on your SME Board Agenda

Sustainability, CSR, ESG, whatever term you choose, it appears to be the hot topic of companies, the media, celebrities, the Prince of Wales and in school rooms up and down the country. For companies we have a responsibility to be thinking about it to help combat climate change, but also because it makes commercial and financial sense to do so.

FTSE and Corporate groups are now committed to 'Corporate Sustainability', with C-suite directors leading buy-in from the top which ensures that true engagement will disseminate throughout their businesses.

Strategic group sustainability leaders are often in situ, supported by siloed teams of sustainability officers responsible for certain drivers or in-functional channels. Most companies are now accepting the need to be more sustainable in some way, but not all are realising the full ROI opportunities.

From a recruiting viewpoint, over the last 10-15 years, we have witnessed a change of attitude and acceptance in the importance of sustainability. Memories now of the past tacit mention from operations or HR, about needing to split-off environmental responsibilities from a HSE remit are in the past. The 'fluffy' language used made it seem like a minor consideration at that time by many, not one that can play a part in every functional and strategic decision to improve a company and affect its top and bottom lines.

The need to keep on top of legal compliance and standards has evolved immeasurably over the last few years to ultimately become 'greener'. Whether this has been through very visible shifts, such as energy usage to incorporate more renewable sources, or through changes in an end-to-end supply chain vetting international labour practises, third-party suppliers and procurement policies, or making operational efficiencies to cut costs and wasteful practises, etc. A change of focus has occurred. We have seen these changes affect recruitment too, over time people being sought with the desired 'tag-on' appreciation of sustainability issues, seen in wide-ranging job briefs, across Technical, Supply Chain, Procurement, Communications, HR, Health and Safety, Commercial, Operations and for Board leaders etc.

In the Chemical industry, we have seen such constant improvements occurring including reduction of carbon emissions, single use plastics, polymers, wastewater, unrecyclable or non-reclaimed materials, hazardous waste, reducing CO2 miles.

People are now more conscious about working more sustainably in their day jobs (and acceptance is gradually occurring). Sustainability should be taken seriously and rank alongside Health and Safety in its own right, embedded in everything a company is about.

Moreover, CSR should also be the positive catalyst to commercial growth, driving innovative product positioning to achieve a premium 'sustainable' brand.

The key take away for this is that we are seeing ambitious, leading-edge SME's, seeking sustainability leaders from blue chip companies to transfer best practice and lead a value-added company function, and add a new CSR Board presence.

By investing in sustainability, risks can be turned into tangible commercial and financial opportunities, besides producing diverse intangible benefits to their businesses. By being committed to a sustainable future, company leaders have 'stolen a competitive march on the market' by producing premium products or services that this generation of consumers now demand.

Companies are starting to try and capture and analyse these hidden financial benefits, across all their cross-functional teams. As examples, their employees are working with the same shared aims of their company by making it more agile and sustainably aware, resulting in a more profitable company, with sustainable succession planning and ability to meet Stakeholders' aims. Their innovative, competitive commercial products will be meeting current and future customer demands, they are securing better supplier-partnerships, or internally reaping more loyalty and engagement by 'proud' employees and ultimately externally attracting Investor interest for continued growth. That is why we believe that now is the time; let's push for a sustainable future and bring in great talent to drive this Agenda before it becomes too late.

For further details please contact
<https://www.rmg-uk.com/>



Do we need to worry about PFAS?

When investigating sites in the UK for ground and groundwater contamination, Per- and Polyfluoroalkyl Substances (known as PFAS) are not always high on the list of potential contaminants considered. Indeed, PFAS have not historically been high priority for regulators either. Toxicology, analysis and remediation of PFAS are emerging sciences, leading to complexities in assessing and reducing the risks posed to human health, water resources and the wider environment, and a temptation to avoid the issue, especially where there is a lack of clear, current regulatory drivers.

However, with their widespread use in industry and manufacture, extreme persistence in the environment, and increasing numbers of studies suggesting they may be harmful to human health (including potential carcinogens), PFAS are attracting growing media, political and regulatory attention around the world. Australia, the United States and parts of Europe are ahead of the UK in terms of regulation, litigation and remediation of PFAS and it seems certain the UK will follow suit with more extensive and tighter regulation imminently.

For sites that are, have been, or are close to a source of PFAS, this could leave operators, investors, landowners and developers with unforeseen liabilities, costs and delays. Future remedial costs associated with operational sites could also be significantly higher than currently anticipated.

What are PFAS and where are they found?

PFAS are a group of several thousand man-made chemicals, many of which are widely used in industry due to their resistance to water, oil/ grease, fire and heat. They have many applications and have been commonly used for their non-stick, stain resistance and lubrication properties. They are also used in electronics, including mobile phone and tablet technology.

As contaminants, PFAS in firefighting foams attracted significant attention following the Buncefield incident and firefighting foams have since been widely identified as a source of contamination in the environment, particularly at airports and military bases. However, there are numerous other sources of PFAS including industrial and manufacturing sites, and many secondary sources such as landfills and sewage plants.

Studies show that human exposure to PFAS is widespread

and most people in industrialised countries have measurable amounts of PFAS in their blood.

Legislative Context

European legislation around PFAS contamination is steadily increasing. The compound Perfluorooctane Sulfonate (PFOS), its salts and Perfluorooctane Sulfonyl Fluoride (PFOSF) were listed as Persistent Organic Pollutants (POP) under the Stockholm convention, adopted to EU legislation, in 2009. PFOS is listed as a Water Framework Directive priority hazardous substance in EU directive 2013/39/EU, which also set out Environmental Quality Standards for PFOS in inland surface waters that have been adopted in the UK.

A number of European countries, the German states of Bavaria and Baden-Württemberg and some states in the US and Australia, have gone further in deriving screening/ threshold values for additional PFAS compounds in controlled waters. However, most of these documents remain provisional.

The future of PFAS regulation in the UK

Currently the UK is behind parts of the world in the assessment of the risks of PFAS to human health and controlled waters, and in the development of screening criteria. However, a greater number of threshold values from around the world are accepted by UK regulators as a measure of PFAS contamination and these - or future UK-derived values - are likely to become embedded into UK regulations in the future.

As research into the toxicology of PFAS progresses it is likely that existing legislation will be extended to cover a much wider range of compounds and the future of PFAS regulation in the UK will need to reflect this.

Stakeholders can be prepared for changes ahead by keeping abreast of developments in PFAS legislation and guidance around the world as well as in the UK and assessing sites for potential PFAS contamination at an early stage. RPS is a world-leading provider of integrated technical, advisory and project management services for PFAS management, investigation and remediation around the globe and - using our strong global connectivity and PFAS experience - we can help anticipate, avoid and mitigate any significant future impacts and protect clients from unexpected costs and delays.

For more information, please contact either:
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www.rpsgroup.com

Greater Innovation for Smarter Materials Optimisation

In this edition of Chemicals Northwest Elements magazine, we speak to Lancaster University's Dr Alex Robson, Senior Research Associate and one of three Greater Innovation for Smarter Materials Optimisation (GISMO) Innovation Fellows. We find out more about chemistry and surfaces and coatings expertise at the University and how their specialist business engagement staff facilitate collaboration between businesses and researchers through the funded research and development and webinars GISMO provides.

As an Innovation Fellow, my role is to liaise with companies, academics and business partnership teams to help diagnose problems and challenges, identify how we can support businesses and apply our research, and to develop and deliver projects, whether in the lab myself or by supporting others. My focus is on the Surfaces and Coatings theme within GISMO and this aligns closely with my background in materials analysis, surface science and coating development.

We can help companies to develop new, functional coatings for products, analyse and characterise materials and surfaces, aid with identification of issues in processes and suggest solutions to these, and develop prototypes and proof of concept studies. We have comprehensive in-house materials engineering development, testing and computational modelling facilities for hard engineering materials through to soft biomaterials. We can manipulate materials over a large range of length scales from nanometres (e.g. small organic molecules) to metres (e.g. composites materials for buildings). Our researchers are world-leaders in the manipulation of surfaces, and technology developed by our researchers has underpinned products sold globally.

Some examples of current and previous collaborations with companies include developing prototype patterned hydrophobic coatings, using surface and cross-sectional analysis techniques to aid product development and quality control, and helping to develop application notes for equipment manufacturers. I am part of an award-winning Partnerships and Business Engagement team at Lancaster University's Faculty of Science and Technology,

where I work as an Innovation Fellow for GISMO, one of the University's suite of collaborative research and development projects for businesses. GISMO is part funded by the European Regional Development Fund and has a particular focus on working with companies in Cheshire & Warrington. We have had organisations from across the globe join our seminars, and can also bring in our wider Partnerships and Engagement Team to facilitate collaborations with organisations from outside Cheshire, and tap into a variety of funding streams.

GISMO links directly to Lancaster University's Materials Science Institute, a community of over 200 researchers working with businesses to provide cutting-edge ideas and solutions in the use, design and manufacture of materials. The project has been designed to help businesses find new materials; test and develop products, processes and ideas; trial new technologies; develop and build prototypes; and understand developments in materials science. GISMO has three main themes which correspond to research strengths at Lancaster University: Additive Manufacturing, Chemicals and Hydrogen and Surfaces and Coatings.

We have a large team of people here at Lancaster University who have a lot of experience in working with both businesses and researchers, and part of our job is to work out how we can help and build successful partnerships, so I urge you to get in touch and join us at one of our seminars to find out more.

Materials Science Institute | Lancaster University

GISMO

To find out more about our surface coatings work at Lancaster University, contact alex.robson@lancaster.ac.uk or see www.smarter-materials.co.uk. You can also keep up to date with our work by following us @GISMolancs and on LinkedIn.



European Union
European Regional
Development Fund

NORTHERN
POWERHOUSE

Innovate with the NextGenChem Hub

In this edition of Chemicals Northwest Elements magazine, we speak to Martin Gilmore, Head of Partnerships & Business Engagement, Engineering and Physical Sciences at Lancaster University, to find out about research, facilities and collaboration opportunities at Lancaster University available through the NextGenChem Hub for chemistry innovation.

I oversee the NextGenChem Hub and am part of our Faculty of Science and Technology's Partnerships and Business Engagement Team. The Hub offers a blend of targeted workshop activities and bespoke technical and analytical research and development support to boost growth in chemical-using and producing industries - such as aerospace, automotive, energy, applied healthcare, and life sciences sectors.

Our Chemistry Department is at the forefront of teaching and research, with particular strengths in chemical synthesis, physical and analytical chemistry, catalysis, functional materials, surface engineering, and process chemistry. We liaise with all areas of the chemical industry across the UK and beyond, ranging from multinational oil, chemical and pharmaceutical companies, to a host of smaller enterprises producing new and specialised products.

We have partnered with Yordas Group, a leading provider of scientific and global regulatory consultancy services, to co-create a new £4.9M business-support Hub, NextGenChem, to spearhead innovation for 300 Lancashire Small and Medium Enterprises (SMEs) that produce or use chemicals, and develop a model that we can then expand globally.

Together, Lancaster University and Yordas Group present a complimentary range of expertise with a unique industrial insight. With world-leading experts and state-of-the-art facilities and equipment worth over £45M, the NextGenChem Hub is fully equipped to tackle R&D challenges being faced by Lancashire's SMEs over the next three years. We work with

businesses to develop technology solutions, improve products and novel materials using 'next generation' chemistry, offering targeted workshop activities and bespoke technical, analytical research and development support. NGC is part-funded by the European Regional Development Fund.

We launched the Hub in September 2020, following a successful webinar. The NextGenChem team have been working hard to produce a series of online workshops on innovative synthesis, formulation, chemical process development, starting with Life Cycle Assessment, which is available on the NextGenChem Launchpad platform. Coming soon will be 'Innovation through sustainable chemistry', this workshop is aimed at engaging people to understand and begin to implement innovation through sustainable chemistry. We will introduce concepts and examples of sustainable chemistry, tools used to integrate sustainable chemistry into product development and a summary of references to substitution within major global regulations. A brief introduction to alternatives assessments will also be covered.

The kind of collaborative research projects we are working on so far includes improving the sustainability of companies' products by utilising green chemistry and Life Cycle Assessment expertise and using our deep understanding of chemical processes to supporting companies in the healthcare sector to safely and effectively develop their products.

NextGenChem and GISMO are just two of the industry-focussed collaborative research projects at Lancaster University. We also have fully funded programmes for businesses in cyber security and materials science, and collaborate with businesses across the globe through virtual student placements, contract research, facilities access, professional development, and multi-partner collaborative research projects. Our £11.4m cTAP building houses our Chemistry department, and offers co-hosting and laboratory space with state-of-the-art facilities, exclusively for industry collaboration.



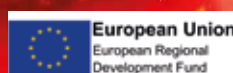
NextGenChem



To find out more about the Hub and our wider activities please contact the NextGenChem team, follow us at @Next_Gen_Chem and on LinkedIn, and watch our animation on our website www.nextgenchemhub.org.



NextGenChem



Keeping our culture during a global pandemic

How the 2M Group of Companies embraced change to keep its team engaged.

As a group of Material & Life Science companies, the 2M Group, which includes Banner Chemicals and Surfachem, is committed to delivering chemistry-based solutions which make the world a better place. Over the past year, this ethos has resonated strongly.

With the pandemic forcing drastic changes to the way we work; we moved quickly to adapt our business & culture.

While locked down and throughout 2020, we welcomed over 30 new colleagues to the Group. Through strategic acquisitions and international expansion, the 2M Group of Companies is constantly growing. We have international presence in Benelux, Brazil, China, France, Germany, Ireland, Poland and Scandinavia, and export to customers in over 90 countries.

Embracing Digital

Like all companies, the pandemic reshaped the way we operate. In 2020, the 2M Group of Companies embraced digital communication tools like never before, to support our teams working from home and to welcome new staff.



Photo above: L-R Beate, Liran, Richie and Mottie Kessler MBE on the 2M Open Door call.

We launched regular “Open Door” calls to connect all employees across the Group. Hosted by Mottie Kessler MBE, our Chairperson and CEO, this enables regular business updates and gives people a voice to share their individual experiences, successes and struggles of the pandemic. At the simple click of a button, we have united teams across the globe.

Maintaining Physical and Mental Wellbeing

Due to the industries we serve, including industrial cleaning, hygiene and sanitation, and Personal Care, our team were busier than ever as a result of the pandemic.

With lockdown restrictions restricting free movement, the 2M Group of Companies recognised that physical and mental health were of critical importance.

During 2020 and into 2021, we partnered with Active Teams, a company that helps employees achieve the NHS target of 150 minutes + of activity per week, and also a mental health support provider.

Our commitment to enhancing physical wellbeing gained momentum with a range of fitness challenges. Since the introduction of “Active in November” the 2M team has logged over 5600 activities, covering over 17,600km.

To help facilitate this initiative and as a ‘thank you’ to our team, we

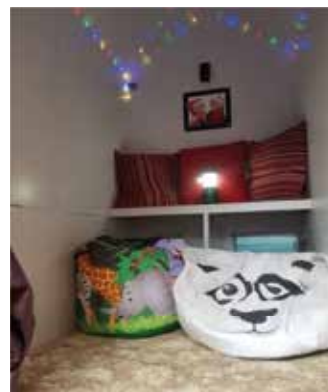
gifted employees with a GPS fitness tracker to support our fitness aspirations.



Photo above: 2M colleagues took up cycling, running and hiking to get fit with “Active Teams”

Our teams also took part in ‘Self-Improvement September’ to try something new and foster a mindset for personal development. From shed conversions, to fitness challenges, employees used this month to focus on themselves, sharing their stories to inspire others across the business.

Photo right: One of our team transformed the garden shed into a “den” for his two children during lockdown, as part of “Self-improvement September”.



Promoting STEM Education

The 2M Group of Companies has a long-term commitment to Science, Technology, Engineering and Maths (STEM) education. Over the last few years, we have sponsored the Bradford Science Festival, hosted ‘Bring Your Kids to Work’ days, and offered apprenticeships / Year in Industry placements to students.

However, due to COVID-19, we had to shift our approach to promoting STEM. We recognise the ongoing importance of making science engaging for young children. We have recently formed a partnership with the Centre for Industry Education Collaboration (CIEC), working closely to provide an educational initiative for local primary schools, to increase access to a career in our Industry.

Transforming Our Culture

Despite being a tough year, together, we transformed our culture to empower one another.

From a recent wellbeing survey, we found that our team’s happiness is significantly higher now than it was before the pandemic. We are proud to have successfully adapted our culture to not only maintain our team’s wellbeing but explore meaningful ways to boost it. <https://www.2m-holdings.com/>



Photo above: 2M’s “Bring your kids to work day, February 2020”.

Hydrogen damage in brief

We could never have imagined just how challenging the past year has been to all business across the North West. Axiom Engineering Associates Ltd is no exception. Despite obstacles, Axiom has adapted quickly to the needs of their clients and provided first class engineering and Inspection/NDT services. Looking ahead to 2021, the Company is forging ahead with plans for growth and development of accounts within the NW region.

Axiom's regional base in Runcorn opened in Spring 2020 and following this, they have steadily sought to use this localization to broaden the scope of our services to a growing portfolio of regional clients. This approach has spearheaded Axiom's drive to deliver an increased volume of value-adding support to the North West during these times of uncertainty.

The guidance and support on offer from technical experts in Axiom's business has really come to the fore in the past year, as clients seek to best understand how they can continue operating their plant safely and economically in the present climate. To do so, a detailed understanding of the risk factors present within their assets is key, and Axiom's 'joined up' offering of Inspection and Non-Destructive Testing, supported by Mechanical and Materials Engineering consultancy, sees Axiom uniquely placed to devise strategies aimed at both preventing and managing life-limiting plant degradation.

One of the most pertinent, and often misunderstood, damage mechanisms present within operational facilities in the Chemicals sector, is hydrogen damage. Here, Axiom's Principal Materials Engineer, Steve Woodward, imparts his thoughts in brief on the subject of understanding the risks associated with this phenomenon.

"Hydrogen atoms are minutely small and able to diffuse (tunnel) through iron, however a proportion remain trapped, causing reduced ductility in high strength steel by restricting internal 'slippage' along crystal planes. Low strength steels may blister due to the pressure of gas molecules, which are orders of magnitude larger than individual atoms. Austenitic stainless steels are immune to embrittlement because their FCC structure has 4 more slip planes than BCC iron.

"Hydrogen may be present in steel from manufacture, or it may enter due to corrosion or from process gas. Sour (H₂S) corrosion is more virulent because the sulphur inhibits the formation of gas molecules, making available substantially more atomic hydrogen. Molecules dissociate to atomic

hydrogen above 205°C resulting in hydrogen 'charging' which doesn't reduce ductility whilst hot but can when cold or if welding is undertaken. Above ~240°C hydrogen combines with the carbon in steel, forming methane, surface fissuring and decarburisation (HTHA). Hydrogen can be driven out of steel by heating to above ~300°C, but HTHA is irreversible.

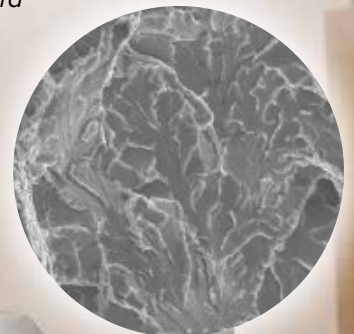
"The mysteries of hydrogen damage remain because, really, we don't know the first thing about how atoms work, hence we ended up believing quantum entanglement is actually a thing!"

Steve Woodward is a Chartered award-winning Materials Engineer and fellow of IoM³ who has worked at Axiom for over 12 years, although his roots working within the Process sector stretch back further into the 1980's, where he worked as a Research Scientist for ICI's Advanced Materials Group.

Steve is a member of the EEMUA Materials Technology committee and the IoM³ Materials Failure Investigation Group. He also sits on the 'events panel' of the Cleveland Institution of Engineers. Away from work, Steve's passion for Materials extends to rocks and minerals where, for the past ten years he has been secretary to Northumbria's Open University Geological Society.

For more details please visit <http://www.ax-ea.co.uk/> contact: + 44 (0)1642 732745 or email: info@ax-ea.co.uk

Steve Woodward



Back to basics – getting a grip on functional safety



Imagine a facility where there are safety systems provided because without them, the risk of an accident is intolerable. They'd be the best managed and maintained systems on the facility, right? Unfortunately, that's not the reality we often see on process plants. Here's a brief article to support getting back to basics and getting your grip back on functional safety. Getting some help from a qualified functional safety engineer is a good idea!

Firstly, let's consider why these systems are installed. The guidance in the Health & Safety Executive's publication R2P2, Reducing Risks, Protecting People requires risks to people reduced to as low as reasonably practicable (ALARP). Risk should be controlled such that, under most circumstances, the risk of a fatality from any single event is no greater than 1 in 1000, and only considered broadly acceptable when less than 1 in 1 million.

For intolerable risks, risk reduction measures must be implemented, or the design changed. A quantum of risk reduction is determined which must be achieved or bettered. One method is to install an electrical, electronic or programmable electronic (E/E/PE) system which can detect, decide and act upon a rogue process variable. For example, a pressure trip which closes a valve upon sensing a high pressure.

The international standards IEC 61508 (for equipment designers) and IEC 61511 (for operators of chemical plants) represent industry good practice. Safety trips are referred to as Safety Instrumented Functions (SIFs); one or more SIFs may make up a Safety Instrumented System (SIS). The risk reduction factor (RRF) determines the Safety Integrity Level (SIL) to be achieved. There are four safety integrity levels:

Safety Integrity Level (SIL)	Risk Reduction Factor (RRF)
1	10-100
2	>100-1,000
3	>1,000-10,000
4	>10,000-100,000

Table 1: The relationship of SIL to RRF

Getting started:

The standards dictate what is required; the most important part is a functional safety management system (FSMS). The FSMS ties together who does what, with what, and when. We suggest a single document that references other documents and includes:

- Functional Safety Policy & Planning
- SIS Safety Lifecycle: Design Phase, Operations & Maintenance Phase, Decommissioning
- Management of Change
- Facility Security and Cybersecurity Management
- Functional Safety Assessments & Verification
- SIS Performance Criteria
- Post-incident and Post-accident analysis

- Supplier Management
- Functional Safety Audits

The FSMS should be communicated to those responsible for functional safety. A key part is the policy; this demonstrates management commitment to meeting the requirements of the standard, stopping functional safety from being another item in an already overpacked schedule and budget; it is the barrier in place to prevent a major accident and needs due care and attention.

The next steps:

Establish the extent of the problem. We suggest you undertake a Stage 4 Functional Safety Assessment (FSA 4). There are five stages of FSA in IEC 61511:

FSA 1: After production of a Safety Requirements Specification

FSA 2: After SIS design and engineering

FSA 3: After installation, commissioning and validation of the SIS, and any other risk reduction measures

FSA 4: periodically throughout the operation and maintenance phase

FSA 5: before modifications and decommissioning

The FSA 4 determines whether SIFs are functioning as expected and that any design assumptions remain valid. For example, how often a SIF is required to protect your workforce from a major accident. It will also review the findings from any previous FSA. It may identify that there was none. If this is the case, you will need to undertake an FSA 3.

The FSA 3 is the last check before a SIF provides protection against a major accident hazard. It is thorough and determines if the functional safety lifecycle has been followed. It also reviews FSA 1 and 2; if you can't prove these were done, you have a significant problem. Speak to a qualified functional safety engineer.

Next, address the problem. We suggest surveying your plant and producing a safety requirements specification (SRS); used to convey the design requirements and constraints.

Then, perform a SIL verification calculation; a pass or fail exercise. Failure means you have an urgent problem to solve: your safety system isn't good enough.

At this point, you are regaining your grip on functional safety, but there is lots still to do!

**6 Engineering are specialists in functional safety.
We're here to help and happy to support you
<https://6engineering.co.uk/> - Good luck!**



Pump suction pipeline design

The root cause of many pump problems and failures can be traced to poor upstream, suction-side, pipeline design. Common problems to avoid are:

- Insufficient fluid pressure leading to cavitation within the pump.
- Narrow pipes and constrictions producing noise, turbulence and friction losses.
- Air or vapour entrainment causing noise, friction and loss of performance.
- Poor installation of pipework and other components.

Cavitation

A liquid's boiling point corresponds to the temperature at which its vapour pressure is the same as the pressure of its environment.

If the pressure of the liquid at any point in the pump is lower than its vapour pressure, it will boil, forming vapour bubbles within the pump. The formation of bubbles leads to a loss in throughput and increased vibration and noise but the big danger is when the bubbles pass on into a section of the pump at higher pressure. The vapour condenses and the bubbles implode, releasing, locally, huge amounts of energy. This is known as cavitation and can be very damaging, causing severe erosion of the pump's components.

To avoid cavitation, you need to match your pump to the fluid, system and application.

Turbulence and Friction

Pumps work most efficiently when the fluid is delivered in a surge-free, smooth, laminar flow. Any form of turbulence reduces efficiency and increases wear and tear on the pump's bearings, seals and other components.

There should be at least 5 pipe diameters' worth of straight piping connecting to the pump. Never connect an elbow, reducer, valve, or strainer within this final run of pipework. If you connect an elbow directly to the pump flange, the liquid is effectively centrifuged towards the outer curve of the elbow and not directed into the centre (the eye) of the impeller. This creates stress on the pump's bearings and seals which often leads to wear and premature failure.

Sometimes, it's just not possible to make provision for a sufficient settling distance in the pipework before the pump. In these cases, use an inline flow conditioner or straightener.

It's standard practice to employ suction-side piping one or two sizes bigger than the pump inlet - you should certainly never use any piping that is smaller than the pump's inlet nozzle.

It also makes sense to keep the run of pipework to a minimum by positioning the pump as close as possible to the fluid source.

Larger pipework means that you'll need a reducer before the pump inlet. The best solution is to use an eccentric reducer orientated to eliminate the possibility of air pockets.

Air or Vapour Entrainment

It's best to keep air or vapour out of the pipework. Entrained gases cause a loss in pump performance, increase noise, vibration and component wear and tear. It's therefore important to position the feed pipe correctly in the tank or vessel. It should be fully submerged. If it's too close to the surface of the fluid, the suction creates a vortex, drawing air (or other vapours) into the liquid and through the pumping system. In shallow tanks or ponds, it may be advisable to use a baffle arrangement to protect the feed pipe from air entrainment.

Installation

Obviously, pumps should be securely located - but so should the pipework. Don't use one to support the other. All other components *must be just as securely located and create no stresses or strains on any other parts of the system.*

Summary

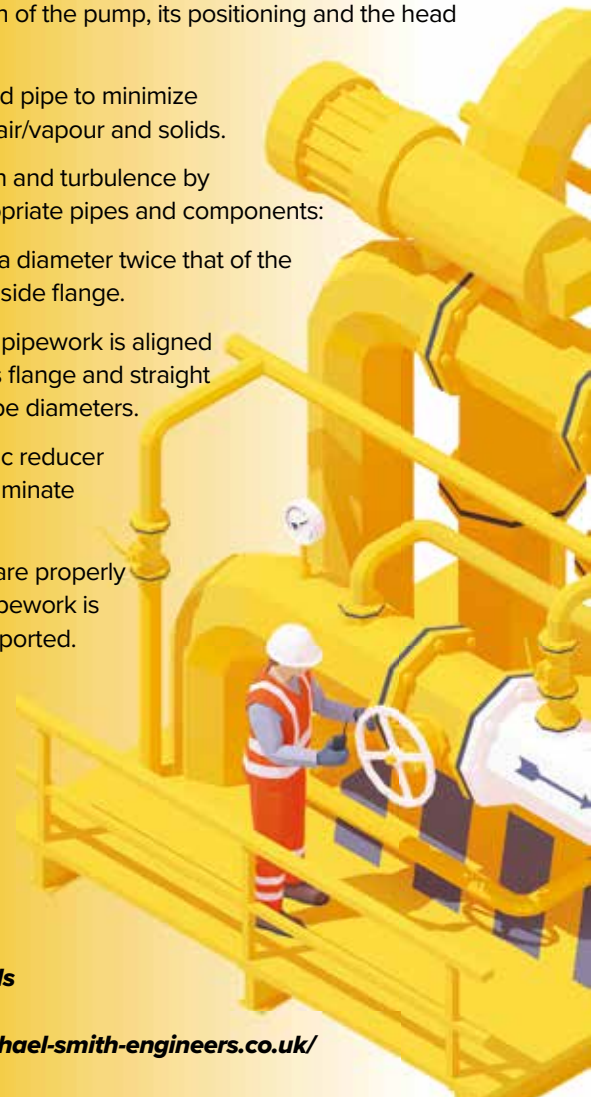
Problems in suction side pipework often have damaging consequences for the system pump and can be avoided by following these guidelines:

- Ensure that conditions do not favour cavitation. This requires careful selection of the pump, its positioning and the head pressure.
- Position the feed pipe to minimize entrainment of air/vapour and solids.
- Minimize friction and turbulence by choosing appropriate pipes and components:
- Use pipes with a diameter twice that of the pump's suction side flange.
- Ensure that the pipework is aligned with the pump's flange and straight for at least 5 pipe diameters.
- Use an eccentric reducer orientated to eliminate air pockets.
- Ensure pumps are properly installed and pipework is adequately supported.

For further details

please contact

<https://www.michael-smith-engineers.co.uk/>



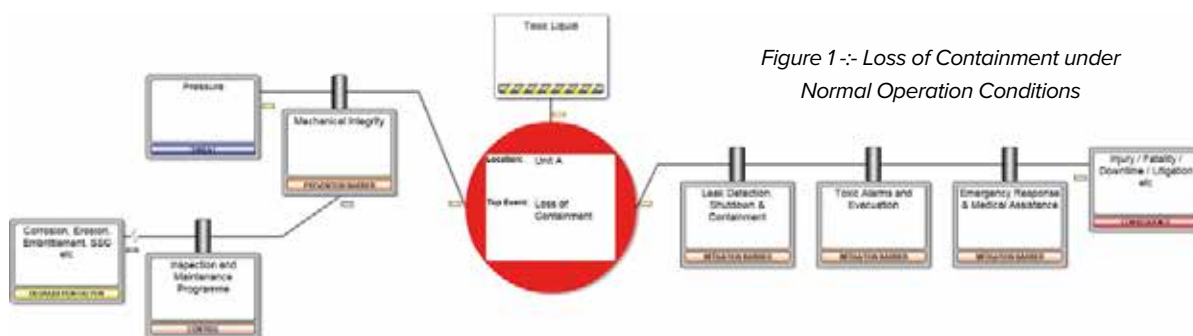
How Damage Mechanism Assessments can get Process Safety and Asset Integrity Managers communicating effectively

In the period 1996 to 2015 the oil, gas and chemical sector experienced a significant number of mechanical integrity failures that resulted in individual insurance claims in excess of \$50m USD. A recent insurance study (Reference 1) analysed these losses and found that:

- 70% were down to pipework corrosion, and
- 70% of failures occurred during normal operating conditions.

The report stated that, “failure to identify potential damage mechanisms and implement inspection programs to suitis considered a fundamental issue underlying most of the losses”.

Under normal operating conditions the prevention of a loss of containment incident is mechanical integrity, implemented through initial design and construction and controlled with an inspection and maintenance programme. If you consider a safety barrier diagram (Figure 1), mechanical integrity is the only preventative barrier.



The responsibility for this barrier clearly lies with the Asset Management department, but there is an overlap with the Process Safety department when you consider the full barrier diagram, especially considering the right-hand side of Figure 1.

Given the large number of significant incidents relating to normal operating conditions it is clear that some operators are suffering from underlying issues, either related to asset integrity and/or Process Safety. The following discusses how a Damage Mechanism Assessment/ Review can not only improve the effectiveness of inspection programmes, but also provide valuable input for the Process Safety team.

Traditional Inspections

Many inspection programs are based on prescriptive, time-based, visual inspection and thickness measurements which provide drawbacks including a lack of technical base for the inspection, an overabundance

of thickness measurements, insufficient resources, and little correlation between risk of failures and frequency of inspections.

Damage Mechanism Assessment/Review

A Damage Mechanism is defined as a mechanical, chemical, physical, or other process that can lead to damage e.g. Corrosion (Uniform, localized and pitting), Stress Corrosion Cracking (SSC), Erosion, Embrittlement, Thermal-related failures etc. A DMA/R is a systematic analysis process that is designed to determine credible damage mechanisms for pressure-containing equipment: process vessels, heat exchangers, process piping, storage tanks etc). Based on the chemicals being processed, the operating conditions, materials of construction, and environmental, external aggressors the process predicts the type of damage, the most susceptible locations and the likely damage rates.

So how does this get Process Safety and Asset Integrity managers communicating effectively?

For Asset Integrity managers, the information collected and analyzed during a Damage Mechanism Review/ Assessment will greatly improve the production of appropriate and efficient testing plans and the development of robust Integrity Operating Windows (IOWs). These are a fundamental to establishing the life

expectancy using operating conditions and operating history data which can aid in CAPEX planning. By understanding the current condition of the assets, and developing appropriate planning and maintenance strategies, downtime frequency and length can be reduced. This also benefits the process Safety managers as understanding the AIM programme and its applications plays a part in considerations for loss of containment scenario planning and likely loss scenarios. The DMA/R also ensures that normal operating condition is given due consideration in safety studies and define the integrity KPI's and trend mapping.

For more information, please contact Brad Eccles – beccles@absconsulting.com – www.abs-group.com

References

- 1) Jarvis R. & Goddard A., 2017, An Analysis of Common Causes of Major Losses in the Onshore Oil, Gas & Petrochemical Industries, IChemE Hazards 27 Paper, Symposium Series No 162

Roadmap to Scale-up: Growth that makes an impact

As part of their innovation strategies, large companies are looking to start and scale new business ventures to deliver radical innovation. Historically, the success rate is low. Ecosystem-thinking can stimulate radical ideas and LeanScaleup used to nurture business startups and generate new growth at a significant scale.

How can companies in the current business environment choose the growth they want?

Many companies find that they are not able to scale-up new technology in-house and achieve the business impact they expect. Statistics speak loud and clear: According to Capgemini, only 10 per cent of Automotive companies have mastered the basics of Smart Factories and only 13 per cent of companies have deployed AI in production.

If one looks outside the company walls, firms are not successful in building new technology-enabled businesses. According to McKinsey, 85-90 per cent of corporate startups fail and do not create a meaningful business impact: worse than that they are burning investor cash.

Where do good ideas come from?

The Institute for Manufacturing at Cambridge University has a suite of front-end innovation management approaches. The first is business ecosystem-mapping that identifies sources of value exchange between ecosystem members. By understanding the ecosystem members and how value exchanges between them, we can harness, exploit and grow solutions to capture more value for the company. The second approach is strategic roadmapping that can be used in exploratory mode to generate ideas and the necessary capabilities and create a narrative for investment in these new venture ideas. These combined approaches together formulate a toolbox for corporate innovators to potentially identify "On Demand" viable new venture ideas and nurture them from start-up to significant scale.

Nurturing the baby business to impactful scale

There are significant challenges for corporate startups to run the gauntlet and to satisfy its corporate investors. An approach known as the LeanScaleup can be used to nurture start-ups to a scale that delivers meaningful returns to the parent company.

To understand the challenge it is helpful to understand that under one company roof you find two engines or management systems. The first system is designed to

execute day-to-day operations. It comprises today's core business and the space of incremental innovation. This system is designed to flawlessly and efficiently execute on a chosen business model. The underlying business logic puts predictability front and centre. The second system is designed to explore the innovative use of new technology and the chances to build a new business which is adjacent to today's core business. This is the innovation space which plays out in "blue oceans" in which new, untapped value pools are to be found and the search for repeatable, profitable business models sought.

The problem statements raised are quite common. From 2017 a peer group of more than thirty leading companies shared practices and common themes emerged to enable a framework to solve the Scaling-Up problem. Three pillars of the LeanScaleup framework are,

1. Methodology: how to validate if an idea is worth scaling, testing if it is ready to be scaled and knowing how to go about managing the Scaling-Up journey.
2. Leadership: how to set the leadership tone and how to get the organization to think outside the box and prepare for the decisions through the Scaling-Up journey.
3. Culture & Collaboration: how to embed Scaling-Up in the planning systems and how to structure the agreement between existing Core business and the scaleup and enable collaboration as a driver for cultural transformation.

Want to know more?

I can help you to create ideas for new business ventures and nurture them to scale. See my previous articles on strategic roadmapping and the front-end innovation system.



Rob Munro is the Institute for Manufacturing's Industrial Associate in the Northwest.

Please contact him to discuss your technology and innovation objectives.

Email rjm240@cam.ac.uk or call +44(0)7896 128 878

CHEMUK EXPO 2021 moves to September 2021

With all industries affected in 2020 by the global Covid-19 pandemic, the UK's national chemical industries trade show has been re-scheduled to take place in **September 2021**, now at its 'new' venue, the **National Exhibition Centre (NEC) Birmingham**. Dates for **CHEMUK 2021 Expo & Open Conference** are set as **Wed 15th & Thur 16th September 2021**.

Building in size further, the multi-award nominated CHEMUK 2021 will present some 300+ leading exhibitors and 100+ expert speakers, under the giant roof of the NEC's premier Hall 1. CHEMUK 2021 is the only large-scale trade show that brings together the UK's chemicals, chemical processing and chemical product formulation industries, providing an intensive 2-day supply chain sourcing, business networking, intelligence gathering, innovation showcasing, best-practice and strategy development experience.

CHEMUK Founder and Managing Director Ian Stone talks about the next stage of the event's growth "Although disappointed that the event's 2020 (Manchester) event could not proceed last year due to Covid-19, we are delighted to host the next edition of the event (now 2021) at NEC Birmingham. The expanded footprint allows for strong growth in the number and diversity of specialist exhibitors, as well as providing a UK-central venue, with fantastic easy connectivity, for attendee groups nationwide & further afield. The appetite for this event has been amazing, with not only a continual stream of new exhibiting names adding to the 2021 line-up, but also a great many taking larger stand spaces to showcase wider solutions & services"

Expanded Supply Chain Expo:

CHEMUK 2021 will provide visitor groups with a diverse and impressive showcase of **300+ specialist exhibitors** showcasing latest **plant, equipment, materials and services** supporting the chemicals industries, driving product innovation, plant & process performance, futureproofing, supply-chain fulfilment, safety, compliance and more.

LATEST exhibitor names added to the line-up since September include: ABB, Robinson Brothers, ALPECO, Sovereign Labelling Machines, Lakeland Industries, Tool-Temp, KTEC Group, Kwerk GmbH, INNOVA S.r.l., Projex Solutions, Safapac, EB Equipment, Tennants Distribution, AC Valves & Controls, Moeschle (UK), RECORD316, EXPO Technologies, BKW Instruments, Thielmann UK, RBH Ltd, OAMPS, URSA-Chemie GmbH, Plasticon Composites, DEC UK, Wiese Europe, EMPTEEZY, Score (Europe), Serfilco International, DEKRA, MARCH MAY...and more being added daily...

CHEMUK 2021 Speaker Programme – expanded to 4 stages

The CHEMUK 2021 speaker programme will present, over 4 parallel stages, over 120 speakers providing 35+ hours of 'free to attend' expert intelligence, case studies, best practice and tech-insight 'snapshots', to inspire and assist next level investment, as well as guide technical and operational strategies for attending industry groups across the UK chemicals & chemical product sectors.

The BIG Issues

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

BREXIT & COVID-19 themes

The unfolding post-Brexit landscape for the Chemical manufacturing, distributing & chemical-using sectors will have feature coverage over both days, with planned input from multiple sector angles. Additionally, the implications of the latest Covid-19 pandemic status for operational safety as well as future supply chain opportunities supporting the critical Pharmaceutical/Vaccine/API sectors.

Organisations confirmed to speak include; **Chemical Business Association, Chemical Industries Association, Defra, BEIS, Department for International Trade (DIT), BASF, Brenntag, BioVale, The KTN, ABB Energy Industries, The HazChem Network, Accenture, Dupont, Siemens, GAMBICA, Royal Society of Chemistry, Process Intensification Network (PIN), Tank Storage Association, The British Contract Manufacturers and Packers Association (BCMPA), HSE, Environment Agency, Cogent Skills, CATCH, Centre for Process Innovation, Calgavin, Maelstrom Advanced Process Technologies, IChemE Safety Centre, RAS Ltd, National Chemical Emergency Centre (NCEC), Newson Gale, REACHLaw...** and many more.

Sector Perspectives

Representing downstream chemical product industries, CHEMUK welcomes senior representatives from **United Kingdom Lubricants Association (UKLA), British Coatings Federation, British Adhesives & Sealants Association (BASA), British Pest Control Association (BPCA), Solvents Industry Association (SIA), Paint Research Association (PRA), Oil & Colour Chemists' Association (OCCA), Composites UK, Confederation of Paper Industries (CPI), The Paper Industry Technical Association (PITA), Aromatherapy Trade Council (ATC)** and others, who will all be providing illuminating sector perspectives and discussing implications for the wider chemical supply chain.

Registration:

Visitor registration is set to go 'live' from Spring 2021, providing free access to all presentation theatres and the exhibition floor. For all very latest information, please visit www.chemicalukexpo.com

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Addison Project was established in 1997 with the acquisition of the former ICI Hillhouse Projects Group.

We are one of the UK's leading independent engineering services contractors, providing project & construction management, multi-disciplined design, CDM and day to day technical engineering support services.

Our manufacturing experience enables us to offer solutions which provide greater efficiency and cost benefits.

Addison use state of the art equipment and software, always striving to continuously improve. Our business is relentless in our pursuit for continuous improvement, for greater output and quality performance for our customers to enjoy. We are totally committed to delivering exceptional levels of customer service in a highly competitive way.

With offices in Lancashire, Cheshire & Teesside, we offer "cradle to grave" engineering services across the entire UK, including 3D laser scanning / modelling, DSEAR/ATEX, Skid design,

pipe stressing & relief calculations and HV engineering up to and including 33KV.

What sets Addison apart from our competitors is the tremendous attitudes of our people, focused on adding value, not cost, to our customer's projects. Our customer's success is our number one priority, going the extra mile to exceed your expectations, working as a team with an ethos of openness, transparency, respectfulness and trust.

We handle problems and issues in an efficient and urgent manner with a strong sense of responsibility. This approach generates trust throughout our client base, cementing relationships which is the cornerstone to our long-term success. Our client focus is unrivalled.

Our commitment to Health and Safety is our number one priority, demonstrated in our latest award of the RoSPA Order of Distinction (21 successive Gold Awards).

We'd be delighted to hear from you.



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Lancaster University

At Lancaster University, The Times and The Sunday Times International University of the Year 2020, we have always welcomed the challenges that businesses provide us. Lancaster University's award-winning Partnerships and Business Engagement Team has assisted over 11,000 organisations and hosted over 136 businesses since 2005 in our thriving community on our 560-acre parkland campus. We liaise with all areas of the chemical industry, from multinational oil, chemical and pharmaceutical companies, to smaller enterprises producing new and specialised products.

We facilitate a variety of collaborative research projects, including over £60m of investment from Europe via structural funding to work with SMEs, and projects funded by the Government's £725m Industrial Strategy Challenge Fund. There are lots of ways for organisations to collaborate, from student placements, contract research, facilities access, professional development to multi-partner collaborative research projects.

Our Chemistry Department works with businesses to develop technology solutions and improve products and novel

materials using 'next generation' chemistry. We offer targeted workshops and bespoke technical, analytical research and development support. Our ambition is to make Lancaster University a hub for 'next generation chemistry', where businesses from across the globe can co-develop new products, formulations and chemical processes.

Our Materials Science Institute is a community of over 200 academic and research staff, working with businesses to provide cutting-edge ideas and solutions in the use, design and manufacture of materials. We can help businesses find new materials for products, test and develop products and processes, trial new technologies, develop and build prototypes, and understand developments in materials science. We can improve the performance of surfaces and coatings, chemicals and chemistry in products and processes, and develop capabilities in additive manufacturing.



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Warrington & Vale Royal College

Warrington & Vale Royal College is based in the north of Cheshire and operates on two campuses – Warrington and Winsford.

We are proud to offer an extensive choice of vocational, professional and apprenticeship courses across an impressive array of sectors, including Science and Engineering.

Our Science curriculum includes Applied Science qualifications alongside an advanced Laboratory Technician apprenticeship.

Our Engineering curriculum spans a wide selection of specialisms, including diplomas in Engineering, Mechanical Engineering and Electrical Installation; HNC/Ds in Engineering and Electrical & Electronic Engineering alongside a number of apprenticeships, including: Engineering Operative, Engineering Technician, Maintenance Operation & Engineering Technician, Engineering Manufacturing Technician. Electrical Installation and new for 2021 – Lean Manufacturing Operative.

In addition to our vocational qualifications, we also provide our employer partners with a number of bespoke training packages, designed to

meet their training requirements. Bespoke packages often comprise our professional qualifications offer, including: Leadership & Management (ILM), Human Resources (CIPD), Accounting (AAT) and Marketing courses.

We provide our learners with a quality learning environment in which to develop their skills, and our highly qualified tutors have vast industry experience in their chosen profession. We pride ourselves on providing a high standard of teaching and learning throughout our curriculum offer.

In the current climate we have found that our FREE distance learning qualifications and online learning courses have proven to be a popular method of continued professional development. Our wide choice of distance learning qualifications can be studied independently and at your own pace at home or within the workplace. Whilst our online learning courses offer the ability to study via our online portal and include areas such as business, leadership & management and marketing.

If you are interested in finding out more about any of our courses, please visit wvr.ac.uk, email us at: learner.services@wvr.ac.uk or call us on 01925 494400.



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Winwick Road,
Warrington,
WA2 8QA

Facebook - @WVRCollege

Twitter - @WVRCollege

Instagram - @WVRCollege

Linked In - Warrington & Vale Royal College (WVRCollege)

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 gloveboxes 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.

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 '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.

Lancaster University

Lancaster University's award-winning partnerships and engagement team facilitates business collaborations, including student placements, access to over £45m scientific facilities, training, contract research, and multi-partner collaborative research projects. We liaise with all areas of the chemical industry, from multinational oil, chemical and pharmaceutical companies, to SMEs producing new and specialised products.

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 <https://www2.mmu.ac.uk/natural-sciences>.

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.

Warrington & Vale Royal College

Delivering vocational, professional and apprenticeship qualifications across science and engineering. Home to a new Advanced Manufacturing & Engineering Training (AMET) centre and dedicated science laboratories. Continually building relationships with schools, businesses and industry to help bridge the skills gap. Bespoke course and packages available. www.wvr.ac.uk

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

Addison Project

Addison Project is a Multi-Disciplined Engineering Project Management & Design organisation, established in 1997, with offices located in Cheshire, Lancashire and Teesside. We have an in-house team of engineers and designers circa 130 people, catering for mechanical, civil, structural, EC&I, process engineering and a full range of CDM services.

Know your supply chains

CDR Pumps UK

A leading independent Pump manufacturer. Since opening our doors 60 years ago, we have gone from strength to strength bringing you a company that has the product, service and knowledge to support the chemical, nuclear and pharmaceutical industries on a global scale. And small enough to give you the individual care and attention you need yet big enough to support multi-site, multi-national blue-chip chemical companies. Our global manufacturing facility in Milan is strategically located to support our customers across the world.

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.

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 breakaway couplings. Comprehensive range of specialist dry quick release couplings to suit 99% of known chemical applications. Bespoke solutions with a size range of 3/4" to 8" nb. Dry disconnect couplings are made to NATO standard Stanag 3756.

MCE Group

Offering valve service and overhaul in our state-of-the-art service workshops, or on site, using OEM parts, from single valves to complete outages.

European distributor for ValvTechnologies, providing severe service, zero-leakage isolation valve solutions, setting the standard for the next generation of valves for the chemical industry.

Michael Smith Engineers Ltd have been supplying pumps to the UK Chemical industry since 1971. We specialise in sealless pumps and our product range includes gear pumps, centrifugal pumps, high pressure pumps, piston pumps, side-channel pumps, vane pumps, AODD pumps and barrel emptying pumps with thermoplastic, metal or PTFE-lined wetted parts.

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 form stock. Centrifuges, dryers, evaporators, filters, heat exchangers, mills, mixers, reactors, separators, tanks.

SABSCO (Steam and Air Blowing Service Company)

is the British subsidiary of the Solarca Group, with offices in Kent. They have been providing world-class steam/air blowing services on projects across the globe since 2003. With the addition of SABSCO, the Solarca Group gained a major competitive advantage: the ability to offer integrated chemical cleaning and steam/air blowing services. World-renowned in their field, they have been selected by leading engineering companies for large-scale steam/air blowing projects in every corner of the globe

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

Yokogawa is a leading provider of field instrumentation, safety systems, industrial automation and digital transformation solutions. IIOT, 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.

Engineering project management & energy

6 Engineering

Is a safety engineering consultancy for the major hazard industries specialising in process and functional safety. Our mission is to provide world class safety expertise, helping you to keep people and assets free from unnecessary risk. Our site engineers can be there to support you when you need us. See more at www.6engineering.co.uk

Atlas Copco Rental UK

Provides temporary cost and energy efficient solutions for long- or short-term demands, planned maintenance or unexpected emergencies. Our engineers design the most suitable temporary installation, utilising our fleet of state-of-the-art equipment which includes 100% oil-free Class 0 and oil-injected compressed air at medium or high pressure, generators for power, and nitrogen. Quality of service, environmental care and personnel safety are guaranteed by our triple ISO certification.

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 turn-key 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.

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. We are part of PM Group, a 2,200 strong, employee owned company operating across Europe, Asia and the USA.

Engineering, IT & process consultants

EJ Peak Technology Solutions

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.

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.

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

ABS Consulting

A global process safety consultancy and training services provider with regional headquarters in Warrington, UK. Our expertise in data-driven risk and reliability includes a range of capabilities: root cause analysis, incident investigation, organisational culture evaluation, risk management, process hazard analysis, bow-tie and data science techniques. Our approved process safety leadership training courses and proficiencies also include building risk assessments, HAZOP analysis, compliance auditing, asset integrity management competency assurance and management systems certification services.

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

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

Environment at 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 groundbreaking 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.

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..

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.

Know your supply chains

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.

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.

Eleven Recruitment

Eleven Recruitment has been a specialist recruiter in the chemicals, energy and commodities sectors since 1999. We have a strong track record of sourcing mid and senior level talent, including C-Suite, with specialist knowledge and experience. We can provide both contingent and retained recruitment services or work with clients as an integrated recruitment partner.

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.

Science Solutions Recruitment

Is a specialist science & technical recruiter with specific expert teams to service niche fields, including speciality chemicals, drug discovery, polymers, materials, cosmetics, personal care, household products, pharmaceuticals, biotechnology & medical devices.

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

£4 million sustainability boost for Sci-Tech Daresbury

The UK Government has confirmed investment that will support science campus sustainability and the upgrade of the world leading research facilities.

The investment includes £4 million to fund sustainability improvements at Sci-Tech Daresbury. The improvements will include the installation of solar panels and more electric car charging ports across the campus.

This funding boost comes as part of a government effort to upgrade the UK's scientific infrastructure and includes further funding to upgrade the science research facilities at Daresbury Laboratory, part of the Science and Technology Facilities Council, and which is located at the heart of Sci-Tech Daresbury.

Paul Vernon, Head of STFC's Daresbury Laboratory, said: "The facilities here at STFC's Daresbury Laboratory, and across the Sci-Tech Daresbury campus, play an important role in driving essential growth in the north of England, creating jobs and escalating opportunities for collaboration and business. Thanks to this Government investment, we can continue to provide both academic and industrial researchers with invaluable access to world leading research facilities and technologies for many years to come, further establishing the North West as an outstanding place for scientists, researchers and entrepreneurs to live and work."

Upgrades to research facilities at STFC's Daresbury Laboratory include:

- The CLARA facility - dedicated to the advancement

of technologies the world's next generation of particle accelerator, CLARA is also a unique facility for groundbreaking experiments in many areas of research, including technologies to treat cancer. The investment will support a test lab infrastructure and support laboratories for CLARA. It includes enhanced laser systems and optics, instrumentation for extremely high vacuum research, and networked data acquisition systems, all of which will be used directly by universities and industry for their experiments with electron beams.

- The Hartree Centre – dedicated to accelerating the adoption of high-performance computing, data analytics and Artificial Intelligence technologies, the Hartree Centre delivers transformative gains in industry performance and productivity. The investment will support improved power supply and cooling infrastructure.
- Advanced precision machining equipment to support a wide range of science and technology programmes, from nuclear and particle physics to cancer treatment technologies.
- Magnet testing equipment to support demand from researchers across STFC and UK universities. This includes testing new types of magnets that will power the world's next generation of particle accelerator at a fraction of the energy cost.

These improvements will enable industrial and academic researchers from across the North West to meet some of today's greatest challenges in physics and engineering, from Artificial Intelligence, to new healthcare technologies and an ageing population. <https://stfc.ukri.org/>

Get Government-subsidised resource for your business with the Kickstart scheme

**KICKSTART
SCHEME**

Chemicals Northwest has launched a package of support in partnership with the Growth Company to help businesses make the most of the Government's Kickstart scheme.

Now more than ever, young people need opportunities to help them shape their future. You could play a key part in supporting them through this scheme.

Kickstart encourages businesses to create six-month work placements for 16-24 year-olds who are at risk of long-term unemployment. The government will pay 100% of the relevant National Minimum Wage for 25 hours a week, plus National Insurance and pension contributions. There's also £1,500 per placement available for setup costs and training.

How we can help

Our new support package, which is powered by the Growth Company, includes:

1. Being your Gateway Organisation: We can partner with you as your Gateway organisation and apply on your behalf. Businesses of all sizes across all sectors can host Kickstart placements, however Sole Traders are currently unable to take part in the scheme. Please note, as part of your application to Kickstart, DWP will carry out several checks on your business, relating to financial history and stability and including a credit check.

2. On-placement support: We can provide a comprehensive development package for those on placement, taking away your need to organise or deliver this.
3. Employment services: We can provide a range of HR and 'back office' support to help onboard your new-starters – so you can simply 'host' the placement and leave the rest to us.

What are the benefits for me?

- Access to fresh talent at zero cost
- Funding to cover training of each Kickstarter
- Potential to secure the future workforce of your business
- Enhanced corporate social responsibility



If you would like to get involved, head over to our website <https://cnw.gckickstart.co.uk/> to register your interest and find out more.



Supporting **sustainably safe** and **profitable** operations.

With over 20 years' experience working within the COMAH regulatory regime, we provide essential process safety management and regulatory compliance support.

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.

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.

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

✉ safetyadvisoryeu@slrconsulting.com

☎ 0161 549 8410

📍 www.hflconsulting.uk