

# Elements

A spotlight on the vibrant north west chemicals sector

Chemicals Northwest 2026 Awards – now launched!

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- Cyber Awareness Month: Prepare for the when, not if, of a cyber-attack.
- Moving chemicals safely and reliably: how Rhenus Logistics gets it right.

...Plus many more articles and features from our member companies

New member spotlights – Bachem (UK) Ltd,

Carbis Loadtec Group Ltd,

Klüber Lubrication Great Britain Ltd

# Chemicals Northwest **2026** awards



19th March 2026

*We're back at the wonderful...*

**Titanic  
Hotel  
Liverpool**



**2025 winners**



<https://www.cia.org.uk/chemicalsnorthwest/awards-2026>

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Warrington  
WA4 4FS

**The Chemicals Northwest Team is:**



**Ian Cranshaw**  
Operations Manager  
cranshawi@cia.org.uk



**Alex Abraitis**  
Member Services & Events Manager  
Alex.Abraitis@chemicalsnorthwest.org.uk

**For membership, event or advertising enquiries please contact:**  
Alex.Abraitis@chemicalsnorthwest.org.uk

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Email: info@2-co.com



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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?

[https://www.cia.org.uk/chemicalsnorthwest/Membership/Benefits-Costs/2025-rates. \(from 1st April 2025\)](https://www.cia.org.uk/chemicalsnorthwest/Membership/Benefits-Costs/2025-rates. (from 1st April 2025))

Micro corporate membership	(1 - 10 employees)	£500.81 + VAT
Standard corporate membership	(11-100 employees)	£871.07 + VAT
Large corporate membership	(100+ employees)	£1108.53+ 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,

We are delighted to bring the Winter edition of Elements to you with the latest roundup from Chemicals Northwest and our members.

Hot off the press is the announcement of the 2026 Award categories for the Chemicals Northwest Awards, taking place on the 19th March at the Titanic Hotel in Liverpool. Our host for the evening will be Roger Johnson, Roger is a lead news presenter on North West Tonight, co-hosting lunchtime and evening bulletins. For details about our Awards and our sponsors please visit our website <https://www.cia.org.uk/chemicalsnorthwest/awards-2026>.

Our September breakfast event took place in the Innovation Centre on the 17th September. We had a variety of presenters. Our first presenter Jim Wragg, a Senior Principal consultant with Geosyntec. Jim provided a brief overview of Geosyntec services to the chemical industry with a particular emphasis given to the benefits of bringing cutting edge science, engineering and innovation to the assessment and remediation of complex contaminated land issues. Our second presenter was Michael Telford, Regional Manager, from Rhenus Logistics Ltd. Michael gave a company introduction and answered any questions about logistics that anyone had ever wanted to ask. Connor Seddon, Sales and Operations Executive from GPEC Group gave a company overview. We also had Stephen Slater and Joy Baraza from Sci-Tech Daresbury and Daresbury Laboratories giving an overview of the plans for the site and the Laboratory spaces and facilities available. Our next breakfast event is planned for the 10th December and we will feature the write up of this event in the Spring edition of Elements.

Our Sustainability event took place on the 25th September. This highly interactive session, facilitated by SLR, focussed on 'Back to Basics in Sustainability', providing insights to accepted practices within organisations and drawing on the experience of members, providing the opportunity for collaboration to progress sustainability within member organisations. Abdul Muqeem, MSc, PhD (Doctoral Sustainability Researcher) - Course Leader for MSc International Business, University of Chester presented about how Sustainability reporting has gained increasing significance within the chemical industry, especially in the United Kingdom, where emerging regulations are redefining corporate accountability standards. We were also joined by Dr Ruth Duberley, Advisory Teacher in the North West, Centre for Industry Education Collaboration (CIEC). Ruth presented Sharing your sustainability messages within and beyond the community and gave the group updates and information about CIEC. Our next Sustainability event is planned for the 29th January and will be facilitated by SLR.

Chemicals Northwest, in collaboration with leading experts from WSP, hosted a focused event on the 23rd October exploring the latest developments in: OT Cybersecurity in High-Hazard Industries: What Regulators Expect Under COMAH presented by Fan Ye, De-risking Projects - Environmental Challenges and Perspectives presented by Lesley Gray, REACH & CLP in Northern Ireland: Regulation & barriers to trade presented by Alison Potts, The on-going cost of REACH compliance presented by Mick Goodwin, Compliance Headaches! Products with Preservatives presented by Alison Potts and Endocrine Disruption Classification under CLP in the EU presented by Alison Potts. The event featured concise presentations from specialists working at the forefront of these areas.

As always, please keep your good news stories, case studies and thought leadership articles coming in to be featured in Elements.

**Alex Abraitis - Member Services and Events Manager**

## About us...

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

With around 130 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.

**Here are the main features and benefits of membership...**

- Annual Awards Dinner
- Breakfast Networking events
- Partner Events
- Common Interest Groups
- Quarterly Elements Magazine
- Website promotion and profiles
- Monthly E-bulletin & ad hoc bulletins with latest sector information
- LinkedIn Groups

**Find out more here - <https://www.cia.org.uk/chemicalsnorthwest/membership>**

# ReAgent Celebrates King's Award for Enterprise with Presentation from Lord Lieutenant

ReAgent recently welcomed the Lord Lieutenant of Cheshire, Lady Redmond, to its headquarters in Runcorn for the official presentation of the company's King's Award for Enterprise in International Trade.

Held on 29th September, the event brought together the full ReAgent team along with invited guests, including key customers, suppliers, and partners - including Chemicals Northwest - who played a part in the company's export success. The award, announced earlier this year, recognises ReAgent's sustained international growth and commitment to outstanding service across global markets.

The King's Award is one of the UK's most prestigious business honours. It recognises companies demonstrating exceptional achievements in innovation, sustainability, international trade, and social mobility. ReAgent was selected in the International Trade category after a rigorous review process.

The day itself was a celebration of that achievement - and the people behind it.

"It was great that the Lord Lieutenant of Cheshire, Lady Redmond, and her husband Sir Phil Redmond came and presented us with the award," said CEO Rich Hudson, the third-generation owner of ReAgent. "But the real highlight was the fact that everyone who works at ReAgent was there to be part of it."

"We also invited a select group of customers, suppliers, and other stakeholders, because they really contributed to us winning the King's Award. This award is something that's shared by everyone, and it's great to have this recognition for the team."

Lady Redmond gave a speech reflecting on ReAgent's long history, which began in 1977, and recognised the company's impressive achievements in exporting bespoke chemical solutions around the world. She then formally presented the award and official certificate, issued in the name of His Majesty King Charles III.

After the presentation, the ReAgent team celebrated with award-themed cakes, biscuits, and champagne.

For many long-serving employees, the award was particularly meaningful.

"I was proud when I found out ReAgent had received this award," said Alison, who works in ReAgent's Purchasing team. "I've been here now for 16 years, and Richard has been there from the beginning. I can see how much effort he's put in over the years, and I was really chuffed to see something come of it that recognises him and the company."

Joe, ReAgent's Production Planner, added: "The King's Award is an incredible achievement for everyone here. Everyone works really hard, and it's an absolute credit to them - the celebration was some well-deserved recognition for the team."

With plans to continue expanding in international markets, the King's Award marks a significant milestone in ReAgent's growth journey, and a moment of pride for everyone involved.

**For further details about ReAgent visit [Chemical Manufacturing Services UK | ReAgent Chemicals](#)**





Safe | Smart | Sustainable

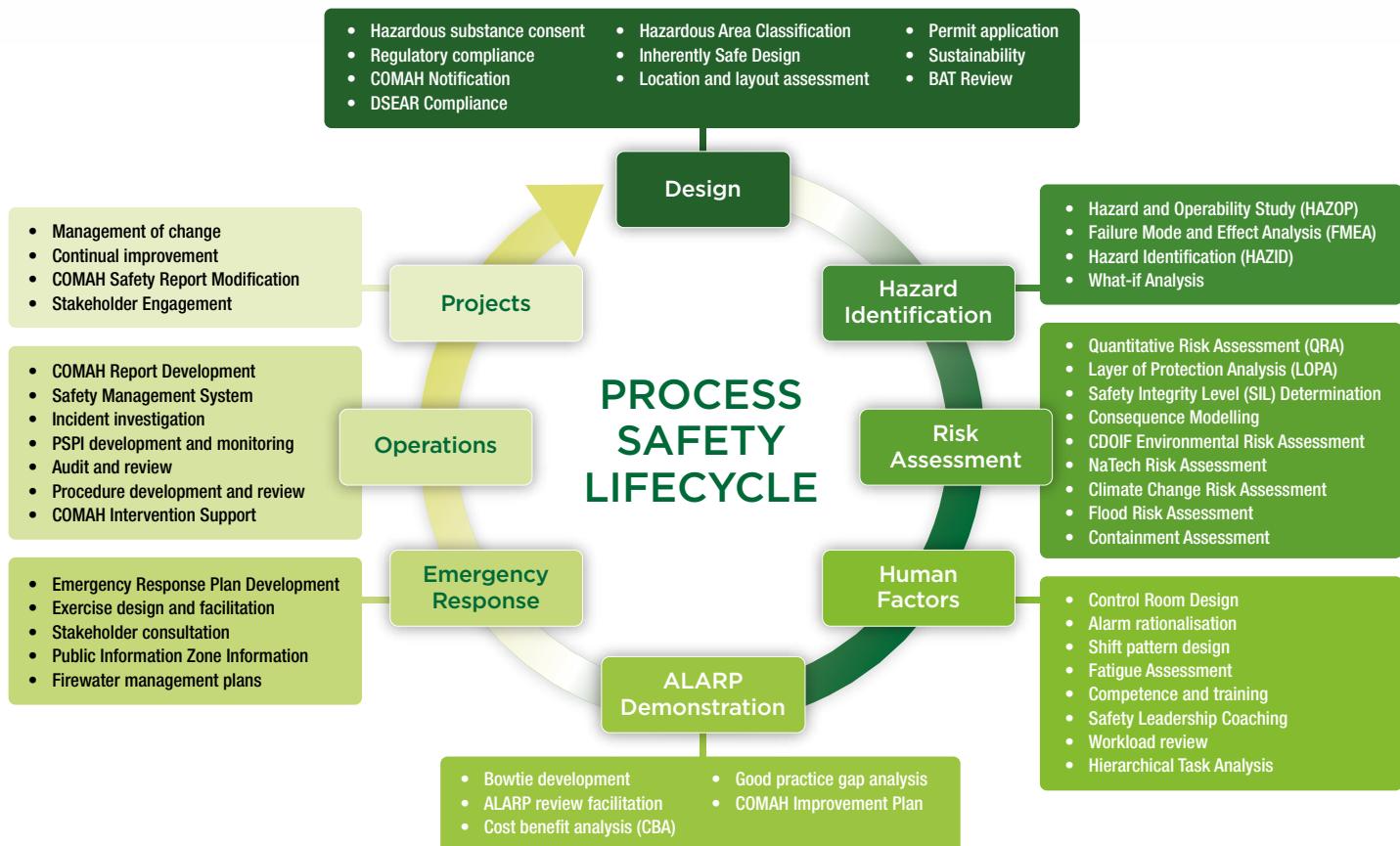
RAS Limited is a well-established, specialist risk consultancy working with an extensive portfolio of large corporate clients which manage complex industrial sites and businesses.

Our team of expert consultants have experience in a wide range of sectors - from pharmaceutical to energy, aviation and specialist chemical sectors.

We are a Chester-based company with a national and international client list. We work differently because of our great team of specialists. Our multi-disciplinary approach to solving challenges enables us to stand out from the crowd. We are passionate about supporting industry to be safer, smarter and more sustainable.

People are the centre of everything we do. We do not believe in off-the-shelf solutions. We partner with our clients to find the best solution for their particular challenges and businesses.

## PRODUCTS AND SERVICES



# DSEAR Compliance – More than just Hazardous Area Classification

Since they were introduced in 2002, the Dangerous Substance and Explosive Atmospheres Regulations (DSEAR) have sought to protect people from harm and minimise the risk posed by hazardous materials. Applicable across industries and businesses of all sizes, DSEAR focuses on managing risks related to fires, explosions, and the release of dangerous substances.

A key component of DSEAR is Hazardous Area Classification (Regulation 7), which defines zones (1, 2, or 3) based on the nature of the substance and the conditions under which they are stored. These zones are documented and illustrated in site drawings.

However, achieving full compliance with DSEAR requires more than just a hazardous area classification.

Under DSEAR employers must:

- Carry out a risk assessment of the site (regulation 5)
- Implement measures to prevent, control and mitigate hazards (regulation 6)
- Establish emergency arrangements (regulation 8)
- Ensure that personnel are able to understand and manage risk (regulation 9)

## Risk Assessment

A thorough DSEAR risk assessment should consider the hazardous substances held on the site, their properties and the nature in which they are stored or handled. The hazards posed by the dangerous substances depends upon their location, the operating conditions in which they are handled, the process or activities being performed and each of these factors should be considered.

The assessment builds upon the hazardous area classification and is essential for identifying and managing risks effectively.

## Eliminating or Reducing Risks

Operators must demonstrate that they have implemented measures to eliminate or reduce risk as far as reasonably practicable.

This demonstration should build upon the risk assessment to show that sufficient measures are in place to control the hazards identified and mitigate the consequences to people. The minimum expectation in managing major accident risk is complying with industry good practice and this foundation is then built upon with additional measures that are considered reasonable to implement to minimise the risk.

## Emergency Planning

Emergency arrangements should be established to minimise the potential impact of hazardous scenarios involving dangerous substances and protect people from harm. The plans to be implemented should be appropriate for the nature of the substances and the potential harm identified.

Options to consider when dealing with emergencies include early detection, warning and communication systems, evacuation, escape routes and fire prevention. Emergency planning should ensure that there are adequate resources available to respond to an accident and that roles with responsibilities within the response have been assigned in advance.

## Information, Instruction and Training

Companies which handle dangerous substances should ensure that their employees are informed of the potential hazards and the importance of the measures in place to control risks. This should include training, procedures and publication of findings of the DSEAR risk assessment in an accessible location. This acts to ensure that the people who are most likely to be exposed in the event of an incident are fully informed, which will minimise the potential for harm and ensure that the appropriate mitigatory measures are implemented.

## Making the DSEAR Compliance Demonstration

To demonstrate full compliance with the DSEAR requires more than just a hazardous area classification or an explosion protection document; it requires comprehensive conformity with all of the regulations, and this may include the management systems, training records and emergency response plans. Typically, the DSEAR compliance document can map out to the documentation that a site already has in place to make the full demonstration required under the legislation.

## About RAS Limited

RAS Limited is a Chester-based process and technical safety consultancy with 30 years of experience across sectors including pharmaceuticals, energy, aviation, and chemicals. With a team of expert consultants, RAS is a trusted partner for managing complex risk in industrial operations and delivering long-term value.

*If you would like to get in touch, please email us here or go to our website: <https://ras.ltd.uk>*



# Corrosion Resistant Products achieving ISO 14001: a sustainability milestone

Corrosion Resistant Products is proud to announce its certification for ISO 14001 Environmental Management Systems. This achievement was led by Rosie Mulligan, Sustainability Engineer, and Rick Payne, Quality Manager. The journey to ISO 14001 has brought both challenges and big wins, and this article will explore CRP's first steps toward becoming a leading sustainable supplier within the chemical industry's supply chain and the rewards CRP have found in completing this accreditation.

## Starting the journey...

Obtaining ISO 14001 certification felt like a natural next step after last year's achievement of ISO 45001. The scope of sustainability initiatives within the company is expanding, driven by objectives from the board, customer expectations, and the necessity to adhere to increasingly stringent regulations. The chemical sector prioritizes sustainability, with many of our clients imposing sustainability standards throughout their supply chains. Securing ISO 14001 not only serves our customers but also lays a solid groundwork for CRP's ambition to become a top supplier in sustainability.

## Challenges in achieving ISO 14001

Creating a new EMS (environmental management system) required specialist knowledge of sustainability. To fill in knowledge gaps we underwent comprehensive training on ISO 14001 standard and ISO 14001 auditing. We also hired Rosie Mulligan Sustainability Engineer to lead on this project. Rosie developed the environmental system alongside Richard Payne, Quality & Health and Safety Manager, who brings a wealth of experience with management systems.

One of the many changes we implemented was in waste management and ensuring everyone used the new recycling system. Everyone at CRP had to play a part in this accreditation engagement was key to our success. This involved full staff training and awareness across the office and factory.

## The key steps of the certification process

The certification process took 10 months, beginning with the registers, documentation, and operational controls. The initial task involved establishing both the legal register and the aspects and impacts register. Following discussions with The Compliance People, we utilized the Legal Update Service (LUS) Software to create these registers, which proved to be an excellent resource that streamlined our efforts.

Additionally, we used the SHE Assure software for managing hazard reporting. Halfway through, we performed a gap analysis with MAKE UK, which brought to light essential measures that still needed to be addressed.



Six months later, we completed the stage 1 audit, and in July, we successfully passed the stage 2 certification audit with Alcumus ISOQAR.

## Impacts and successes

- 100% renewable electricity with solar panels installed. Cutting scope 1&2 carbon emissions by 65%
- Increased in-house recycling rates from 5% to over 60% by segregating our waste.
- Total recycling rates reduced by 40% on average.
- New waste contract with a local company Wheeldon Brothers, has saved £1000's per year.
- Installed energy monitoring equipment on our machinery, an EV charging station, LED lighting in the factory, and 300 solar panels in the factory roof. Our energy consumption is down 25% combining all these measures.

## Looking to next year...

Last year we achieved the Ecovadis Bronze medal, and this year we are aiming to take this further.

We are due to release a verified Environmental Product Declaration (EPD) for our PFA and PTFE lined pipe products, fittings, and spools this year. Additionally, we aim for further transparency and share our progress through publishing an annual sustainability and CSR report.

Overall, achieving ISO 14001 has provided a strong framework for driving meaningful change and identifying key areas for growth across the company. Sustainability has been a central focus for us over the past year, and it's now becoming embedded in our everyday practices. While we have many new goals ahead, we're approaching them with greater clarity and a stronger foundation.

For information visit <https://crp.co.uk/>

# Northwest Entrepreneur launches Middle East business division to expand availability of reduced hazard polymers

Paul H. Jones, Managing Director and owner of businesses including Anacarda, Bitrez Ltd and Chemical Processing Services Ltd is delighted to be opening a new organisation to help generate support and understanding of improved technology, reduced hazard polymers, and products that aid the environment.

The new business venture called CPS MIDDLE EAST FZLLC



is strategically located in the United Arab Emirates and enables further expansion of our presence in the Middle East region. The new business will complement the existing CPS business and provide a gateway enabling the company to better cater to the needs of its growing customer base across the continent.

To spearhead the company's efforts in this venture Raja Balan the Director responsible for Sales Development and long-standing UAE resident, will be managing the operation. Raja has a proven track record in the chemical sector and has worked together with Paul for over a decade in other ventures, and he is recognised as

the perfect partner for this crucial role. We are thrilled to be expanding our presence in an area that is becoming increasingly important and by investing in the Middle East, we believe our new associated business will help us better serve our customers and grow our business in the region.

CPS surpass the conventional boundaries of chemistry offering a blend of innovation and pioneering technological expertise. The extensive range of product types that include the numerous Patented products that provide reduced hazard rating and enhanced performance including the MANNAMIDE, FUROX, FURALKAMINE and PERMACURE trademarks will all be made available. The MINAMINE product range that was recently showcased at the Thermoset Resin Formulators Association [TRFA] Annual General Meeting on the 7th October 2025, when Dr. Shahid Qureshi, Technical Specialist and Business Development Manager – North America, presented “An Introduction to Minamine Technology” receiving great reception. Dr. Qureshi provided an insightful overview of this innovative technology. The presentation was well-received and considered a great success, engaging attendees and highlighting the potential of Minamine Technology.

Paul H. Jones, Managing Director, “Opening of the new business in the Middle East is yet another exciting development on our growth roadmap. We are not only underpinning our commitment to provide best-in-class services and support to our customers around the world, but we have also taken this opportunity to recruit some highly experienced and knowledgeable staff who I am sure will add greatly to the CPS team.

## About Chemical Processing Services Ltd

Chemical Process Services Ltd [CPS], an award-winning UK-based speciality polymer chemistry consultancy firm that concentrates in providing technical and regulatory compliance to the chemical industry. Offering a range of specialist Patented polymers that focus on enhanced technical performance, regulatory compliance and/or address anthropogenic damage through numerous sustainability initiatives. CPS pride themselves on their quality, service and responsiveness to local customer needs, all with a focus on continually increasing sustainability.

**To find out more visit - <https://www.cps-consultancy.com/>**



Raja Balan



# The Patent Box – adding value to your intellectual property portfolio

The UK government offers a tax relief regime called the Patent Box. In this article, WP Thompson discuss the criteria for applying for this form of tax relief and how it could influence your company's intellectual property (IP) portfolio.

There are many reasons why companies might want a patent. Perhaps the most obvious is to prevent other parties from working their invention and potentially diluting the market. Alternatively, or additionally, there might be a wish to sell or license the patent itself, effectively monetising the patent. The Patent Box is a UK government regime designed to provide further financial incentives to patent owners. Here, we open up the Patent Box to shed some light on its contents and discuss the situations in which it could benefit your company.

## What is the Patent Box?

As mentioned above, the Patent Box is a form of tax relief. The main rate of corporation tax in the UK was raised in 2023 to its current rate of 25%. Under the Patent Box regime, a reduced corporation tax rate of 10% is applied to profits from exploitation of the patent or the invention and/or products incorporating it. The regime therefore allows companies to effectively increase their profits, serving as an incentive to commercialise their intellectual property in the UK.

## Eligibility criteria

For a corporation tax-paying company to be eligible to benefit from the Patent Box, it must own or have an exclusive licence for a patent granted by the United Kingdom Intellectual Property Office, the European Patent Office or the patent office of any of Austria, Bulgaria, Czech Republic, Denmark, Estonia, Finland, Germany, Hungary, Poland, Portugal, Romania, Slovakia and Sweden. Naturally, it must also turn a profit from exploiting the patented invention, even if the company overall operates at a loss.

The company must also have significantly contributed to the creation of the patented invention, or a product or process incorporating it. The classification of a "significant" activity is context-dependent, taking into account costs, time or effort incurred, or value or impact added. Where a company is a member of a group, to qualify for the Patent Box it must have contributed such a significant development activity and must demonstrate active ownership of the patent or a wider IP portfolio by significantly contributing to its management.

## Electing In

Companies must elect into the Patent Box regime either in writing or as part of their tax returns, within two years after the end of the accounting period in which the relevant profits were made. The tax reduction can apply retroactively to the period during which the patent was pending, up to a maximum of six years. As part of their election, companies must confirm the nexus, or link, between the R&D that led to a patent with the profits derived from it, to ensure only relevant allocated R&D funds are included in the calculation. Qualifying profits can include sales of the patented invention or a service using it, products incorporating it or bespoke spare parts, manufacturing using a patented process, sales or licensing of the patent, and patent litigation compensation.

## Scope of protection

Applicants for patent protection often seek a broad scope of protection, to limit the possibility of competitors easily circumventing the patent, once granted. However, pursuing relatively broad protection increases the chances of requiring protracted negotiations with a patent examiner over what subject-matter

is patentable. UK patent applications must be found to comply with the UK-IPO's requirements within 4 years and 6 months of their effective filing date, whilst European patent applications have no such cut-off period. Either way, applicants potentially face years of dialogue with the examiner on the road to grant.

Where broad enforcement of rights is not a priority, and a patent only needs to relate to a specific product, it may therefore be beneficial to seek a narrower scope of protection. This might allow the patent application to reach grant more quickly, allowing the owner to reap the benefits of the Patent Box corporation tax reduction earlier. The financial value of such a narrowly drafted patent would likely come predominantly from the tax relief available, rather than the enforceability of the patent.

Speaking with intellectual property specialists and tax relief advisors can help you identify the scope of protection and potential tax reductions that could be available to you if you wish to elect into the Patent Box. Patent applications can be drafted according to your needs and your ambitions for your IP portfolio.

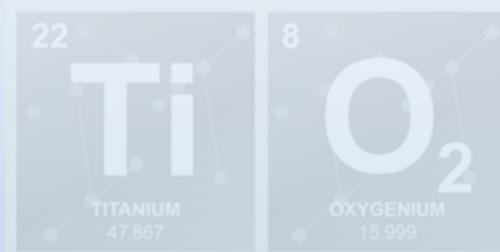
**To find out more from WP Thompson, including how to make your IP more financially beneficial, please visit <https://www.wpt.co.uk> or contact us at [london@wpt.co.uk](mailto:london@wpt.co.uk).**

# Titanium Dioxide Classification

Titanium dioxide ( $TiO_2$ ) is a widely used white pigment found in paints, plastics, paper cosmetics, and food. It is valued for its brightness, opacity, and inertness. It was generally considered to be a substance of low toxicity under normal use conditions. It is chemically inert and not bioactive.

## Introduction

In 2019 certain respirable powdered forms of  $TiO_2$  were classified by the European Union as a suspected carcinogen (Category 2) by inhalation, based on studies where rats exposed to high concentrations of  $TiO_2$  dust developed lung tumours. The classification also required accompanying warnings on product labels, such as advice not to breathe dust from  $TiO_2$ -containing mixtures.



$TiO_2$  is used in thousands of products across a diverse range of industries and so manufacturers and downstream users faced the prospect of labelling the products as potential carcinogens, handling waste as hazardous and reformulating products to avoid regulatory and reputational issues. Many in the industry argued that the classification would mislead the public by equating  $TiO_2$  with asbestos and cause unnecessary panic and costs.

The classification was highly controversial as inhalation studies carried out with dust samples in rats can result in a species-specific response that is not observed in humans. The titanium dioxide manufacturers association and other stakeholders raised legal challenges arguing that the scientific evidence had not been correctly assessed and the inhalation risk was not relevant in humans. In November 2022, the EU General Court annulled the classification finding that regulators had made significant scientific errors in the assessment and in August 2025 the Court of Justice of the European Union (CJEU) brought an end to the issue, dismissing appeals from the European Commission over the classification under EU CLP (Classification, Labelling and Packaging of substances) regulation and from France (ANSES) on the grounds that the General Court had no jurisdiction over scientific evidence and should not have made the initial ruling. The ruling annulled the 14th ATP to CLP for certain forms of  $TiO_2$  to be classified as *Carc.2 (H351: inhalation)*, consequently meaning that  $TiO_2$  is no longer classified as a carcinogen in the EU and Northern Ireland.

## Background

In 2020 the 14th adaptation (ATP) to CLP introduced a harmonised classification for  $TiO_2$  for the fine powder form ( $\geq 1\%$  particles  $\leq 10\ \mu m$ ) along with supplementary labelling for mixtures (EUH211 and EUH212). The primary evidence for  $TiO_2$ 's classification was a set of chronic inhalation studies in rodents. However, industry challenged this as

$TiO_2$  does not behave like a typical chemical carcinogen (it is not genotoxic or chemically reactive) and the science behind the classification wasn't based on direct evidence of carcinogenicity in humans but on lung overload effects on rats.

After two years consideration the General Court agreed and sided with industry ruling that there were significant errors in the assessment and that the evidence from human studies did not provide a clear link between  $TiO_2$  exposure and cancer. Subsequent appeals meant the final ruling was not completed by the European Court of Justice until August 2025. The judgement has immediate legal effect, with no requirement to wait for the next ATP to update Annex VI.

In practical terms the ruling means that for businesses importing  $TiO_2$  or products containing  $TiO_2$  into the EU or Northern Ireland there is no longer any classification required in relation to inclusion of  $TiO_2$  in products:

- Products containing  $TiO_2$  no longer require the warning "H351: Suspected of causing cancer by inhalation" on labels.
- The special advice phrase about respirable dust (EUH212 and EUH210 phrases that were introduced alongside the classification) is also not required.
- $TiO_2$  is now treated like any ordinary chemical without a harmonised classification. The standard safety measures for nuisance dust will still apply, as covered under worker safety regulations.

## Impact on Future Harmonised Classifications

This judgement may have significant implications for the approach the EU will take in future to classify chemicals, particularly where inhalation testing has been carried out on dusts or aerosols. Regulators will need to ensure rigor in their scientific assessments, and base classification on solid, reliable studies and intrinsic hazards where mode of action is not species specific to the test animal. This should result in slower and more robust decision-making.

## Conclusion

The  $TiO_2$  case illustrates the need for hazard classification to be based on robust science and intrinsic properties, the importance of transparent science in regulatory decisions and sets a precedent for future harmonized classifications. However, it is likely that mineral dusts will remain contentious in the near future, with silica and carbon black both undergoing scrutiny at this time.

**If you need help with reclassification, safety data sheets or relabelling of your products then our Chemical Compliance team can help.**

**Contact us: The Chemical Compliance Team**  
**[REACH@wsp.com](mailto:REACH@wsp.com)**

# Greener Chemistry: Transforming Ammonia and Methanol Production

The chemical sector in the UK is currently facing the dual pressures of decarbonising to meet net zero targets while competing internationally under increasing energy and policy costs. These pressures are driving innovation in key sectors of the industry which have high energy demands.

Appleyard Lees have been tracking innovation in green technologies for the last five years with their Inside Green Innovation: Progress Report. This year's report looks at patent filing trends in the energy, AI, materials / chemical and food sectors. The report includes a focus on the efforts to decarbonise ammonia and methanol production through innovation. The findings from the report in relation to these key industry sectors are discussed in further detail below.

## The opportunity at hand for ammonia and methanol production

Ammonia is vital for agriculture with about 70% of output going into fertilisers. The rest is used in the production of pharmaceuticals, plastics, textiles and explosives. Methanol is another vital chemical used to produce formaldehyde, acetic acid, methyl methacrylate and olefin feedstocks.

Government policies such as carbon taxes and the EU Carbon Border Adjustment Mechanism contribute significantly to the cost of production of ammonia and methanol in particular. Such policies are incentivising efforts to reduce the environmental footprint of the production of ammonia, which accounts for roughly 1% of global CO<sub>2</sub> emissions, and the production of methanol, which is responsible for about 10% of the chemical sector's CO<sub>2</sub> emissions.

As such, reinventing production for both ammonia and methanol represents a huge opportunity for companies of all sizes to reduce costs and meet the decarbonisation demands of customers and regulators.

It is no surprise then that the patent data analysed in the [2025 Inside Green Innovation: Progress Report by Appleyard Lees](#), highlights that innovation in sustainable ammonia and methanol is accelerating, with the rapid rise from around 2020 in the number of new patent applications that relate to sustainable ammonia and methanol production continuing into the most recent period. Two case studies illustrate the kinds of innovations taking place in these sectors, driven by both large and small organisations.

## Thyssenkrupp: sustainable ammonia

Thyssenkrupp, the engineering and steel conglomerate, has been heavily involved in ammonia production for decades. More recently, through its subsidiaries focussing on decarbonisation, Thyssenkrupp has turned its attention to sustainable ammonia production to help reduce capital expenditure, capitalise on cost-effective renewable power, and mitigate stringent CO<sub>2</sub> taxes and penalties.

Thyssenkrupp's recent patent filings focus on integrating renewable hydrogen into ammonia synthesis processes and



retrofitting existing plants for green feedstocks. Following these innovations, the company recently won a contract to deliver an electrolyser to CF Industries in the US, capable of producing 20,000 tons of green ammonia annually. In 2023, Thyssenkrupp partnered with ADNOC on ammonia cracking projects that utilise "blue ammonia," produced with carbon capture. Other recent developments from Thyssenkrupp have been focussed on improved heat exchangers and recirculation of feedstocks to achieve a more efficient use of starting materials.

## Liquid Wind AB: eMethanol

At the opposite end of the spectrum in terms of company size is Liquid Wind AB, a Swedish start-up founded in 2017. Liquid Wind are developing eMethanol production processes which utilise hydrogen produced from electrolysis powered by renewable electricity and captured or biogenic CO<sub>2</sub>.

Despite its youth, the company has attracted backing from the likes of Topsoe, Siemens, and Samsung, raising €44 million in Series C funding in 2024. Their vision is bold and with plans to reach 10 projects for eFuel plants across Sweden and Finland by 2027, they are scaling quickly - which is likely to drive costs down.

Their patent filings showcase clever, practical solutions, such as systems adjusting electricity use based on supply fluctuations and methods for recycling carbon capture solvents.

These innovations show how small firms, through efficiency and adaptability, can play a meaningful role in a sector which has been previously dominated by industry giants.

## Takeaways

Ammonia and methanol are among the fastest moving areas of decarbonisation in the chemical industry. The patent filing trends analysed in the 2025 Inside Green Innovation: Progress Report now point beyond concepts to deployable practical solutions such as hybrid retrofits, CO<sub>2</sub> utilisation and control strategies following power availability.

The companies operating in these sectors - multinationals and SMEs alike – will benefit from the increase in their patent filing activity, as early IP planning can safeguard innovations and secure technical advantages over competitors, and also enable access to funding through government initiatives.

## Where to learn more

This article draws on insights in the Appleyard Lees Inside Green Innovation: Progress Report (5th edition). Explore our [full report](#), or alternatively:

- [Decarbonisation: Ammonia](#)
- [Decarbonisation: Methanol](#)

Appleyard Lees advises clients across the chemical manufacturing sector on patent strategy and portfolio development for low-carbon routes.

For further details about Appleyard Lees visit

<https://www.appleyardlees.com/>

Holly Redman, Trainee Patent Attorney

# Northwest speciality bio-polymer business takes residual free EDA to new lows

Anacarda, a Northwest speciality bio-polymer business takes residual free EDA to new lows. Anacarda Ltd, pioneers the development of innovative products derived from cashew nutshell liquid – (CNSL), and has been recognised as being at the forefront of this Bio-based technology for over a decade.



CNSL is gaining interest due to being an abundantly available, renewable feedstock. The refined derivative Cardanol (3-Pentadecylphenol) is used as the basis of some highly hydrophobic epoxy curative technology, generally in conjunction with ethylene amines. In the homologous series of ethylene amines, ethylene diamine (EDA) is the lowest in the series and the material that has been mostly commonly used in the generation of these Mannich base epoxy curatives. However, ethylene diamine has the lowest molecular weight and ethylenediamine has the highest volatility and presents numerous health and safety concerns.

A Substance of Very High Concern (SVHC) is a chemical identified as being potentially harmful, and the materials identified as SVHC's are added to the Candidate List. The European Chemicals Agency (ECHA) reviews and prioritises the most concerning substances to be moved to the Authorisation List (Annex XIV), the material may then have a sunset date, whereby their use is heavily restricted or planned to be entirely phased out. On April 13, 2023, ECHA recommended 8 substances including ethylenediamine should be added to the REACH Authorisation List to protect workers and the environment.

The objective of REACH Authorisation List is to control risks of these substances and can only be used without safer alternatives. Substances in the Authorisation List are restricted after the sunset date and cannot be used unless application or authorisation is made. ECHA has prioritised these substances from the Candidate List of substances of very high concern (SVHC) for this recommendation as they are of the highest priority. There have been some amendments made and the timings uncertain, however Anacarda has pro-actively sought to provide some solutions. The unhindered primary amine groups associated with EDA offers advantageous properties when converted to the Mannich base "Phenalkamine", and we decided to use some CPS licenced technology to generate <0.1% free EDA products.

Some of the latest Phenalkamines offered under the Cardamine brand have free EDA levels that fall below the 0.1% threshold limit or are absent of EDA entirely. The relationship is sequential: a substance must be an SVHC on the Candidate List before it can be moved to the Authorisation List. Some of the latest products have been carefully designed to consider alternate feedstocks but conscious of horizon scanning to prevent regretful substitution. We proactively monitor regulatory updates to anticipate future chemical-related risks and threats, in order to provide our customer base with an effective solution and aid maintain compliance. We avoid regretful substitution by ensuring that the replacement chemicals and products that we have formulated, are not just replacing one chemical structure with another of a similar structure that could ultimately be of a similar nature but hasn't as yet been suitably tested for safety.

With the European Chemicals Agency (ECHA) looking at "group testing" and the assessment of chemicals with similar structures, there is greater chance of establishing the health hazards associated with the structurally similar items and making consistent classification at a similar time. This strategy speeds up the chemical evaluations and lends itself to avoidance of instances of short-term substitutions. Of course, this can only assist with providing products that help ensure an increased level of protection for human health and the environment.

For further details visit <https://www.anacarda.com/> or <https://www.cps-consultancy.com/>



Paul H. Jones,  
Managing Director and Owner of  
Chemical Processing Services Ltd

# Keeping Food Safe: Global Good Manufacturing Practices for Food Packaging and Food Contact Materials

When you grab a snack from a supermarket shelf, you probably don't think twice about the packaging it comes in. Yet behind the scenes, a complex web of global regulations ensures that the materials touching your food are safe. These rules include, amongst others, Good Manufacturing Practices (GMP), and they serve one crucial purpose: protecting consumers from contamination and unwanted chemical migration from the packaging into the food you eat.

## Why GMP Matters

GMP standards cover the entire food packaging supply chain, from sourcing food packaging raw materials to the actual packaging and transportation of finished goods. These regulations ensure that the plastics, papers, coatings, and other materials in contact with food do not alter the food's taste, smell, or, most importantly, safety.

Let's have a look in a nutshell at how GMP is regulated on a global level.

## European Region

Within the European Union, GMP is enforced under Regulations (EC) no. 1935/2004 and 2023/2006, creating a strict framework that governs every stage of production, processing, and distribution.

Even after Brexit, the United Kingdom largely adopted these rules by incorporating it into Retained EU Law (REUL). Besides general requirements, this framework has been supplemented with UK-specific rules for materials such as plastic.

While Switzerland has its own system, its closely aligned with EU standards. Article 4 of Regulation SR 817.023.21 requires products to be manufactured in compliance with GMP, including all aspects of quality assurance to ensure consistency in both production and inspection.

## The United States (US) Approach

Across the Atlantic, the US Food and Drug Administration (FDA) oversees food-contact safety through regulations such as 21 CFR part 110 and 174.5 to ensure that packaging and all indirect food additives remain safe under intended conditions of use.

## Asia Standards

China introduced Standard GB 31603-2015, which applies GMP across the entire supply chain, from raw materials to transport. In a similar fashion, Japan regulates GMP under Article 52 of the Food Sanitation Act (FSA) including provisions on strict sanitary requirements and the implementation

of measures to prevent food contamination. Mandatory information sharing and the use of Declarations of Compliance across the entire supply chain is an obligation that must be met. South Korea's revised Food Sanitation Act sets strict hygiene rules to ensure food safety and prevent contamination, including the prohibition of the sale or display of food products that had passed their expiration dates. The ASEAN countries published a regional GMP guideline applying to all sectors responsible for manufacturing of food contact materials and providing general safety principles and compositional and organoleptic criteria.

## Latin American Resolution

MERCOSUR, the South American trade bloc, sets its GMP rules on principles similar to the EU in GMC Resolution No. 03/92 ensuring that packaging does not release harmful substances into food, to prevent risks to human health, and to avoid unacceptable alterations to the food's composition or sensory characteristics.

## One Goal, Many Systems

While details vary, the global picture is clear: GMP standards are critical for trust in the safety of what we as consumers eat. The main goal of GMP is to ensure the food contact materials are safe for their intended use and do not pose a health risk to consumer by preventing contamination and limiting the release of substances into food.

The next time you open a packet of biscuits or noodles from a sealed pouch, you are benefitting from an intricate worldwide system of manufacturing rules and inspections, all designed to keep your food safe.

If you are interested in learning more about how to comply with the global GMP requirements for food contact materials (FCMs) please reach out to [www.knoell.com](http://www.knoell.com). Our team can provide tailored regulatory support and conduct on-site GMP audits of your FCM manufacturing facilities.

*For further information on  
knoell's FCM regulatory  
services, please contact us:  
[FFCM.NA@knoell.com](mailto:FFCM.NA@knoell.com)*



# Legislation Watch – Umbrella Reform

The process of hiring contractors in the UK has seen significant legislative change in recent years. Firstly, there was the off payroll legislation that came in to force (in the private sector) in 2021. The off-payroll regulations place the unpalatable responsibility of deciding if a contract assignment should be 'inside' or 'outside' of IR35 on to the shoulders of the hiring company, and also potentially fix the hiring company in HMRC's crosshairs if the wrong determination is made. This has seen many hirers shy away from engagement with limited company contractors, which has in turn galvanised a sharp increase in the popularity of umbrella companies.

Umbrella companies are essentially payrolling specialists that take on employment responsibility for contractors and calculate tax and NIC contributions. A bit like the IR35 legislation of old, they have traditionally been a part of the supply chain that hirers have perhaps only dimly been aware of, and generally not concerned about. But that is about to change.

The problem is that the umbrella industry has been largely unregulated to date, meaning that in some cases malpractice has bloomed: expenses abuse, disguised remuneration (such as loan charge schemes), withholding of holiday pay, opaque fee structures – this has, eventually, forced Government to act.

The new legislation, currently at draft stage and likely to be implemented in April 2026, will enforce 'joint and several liability', meaning that the umbrella company alone will not bear liability for non-compliance. Instead, HMRC will also be able to pursue other elements of the supply chain.

For recruitment companies, this has a greater bearing than for hiring companies, as any recruitment company in the supply chain will almost certainly share liability. However, if there's an absence of a recruitment company, then the hiring company will be included.

This means that organisations, whether recruitment companies or hirers will have to take a much sharper interest in their umbrella supply chain, placing greater emphasis on due diligence and audits as, simply put, ignorance will be no defence if the correct tax and NICs are not applied by their umbrella partners.

Maintaining, or introducing recruitment companies to the supply chain will help to mitigate risk, but with just over six months to run before the legislation comes in to place, hiring companies should take steps now to manage potential liability.

If you or your business would like some further information or to speak about the Umbrella Reform please get in touch with Lee Knowles – [Lee.Knowles@  
adeptotechical.co.uk](mailto:Lee.Knowles@adeptotechical.co.uk)

*Written by Lee Knowles  
– Owner/Director at  
Adepto Technical  
Recruitment*



# Cyber Awareness Month: Prepare for the when, not if, of a cyber attack

With so many big brands falling victim to crippling cyber attacks in the past few months alone, and the huge fallout from those high-profile systems breaches making for almost daily news headlines, we head into 2025's Cyber Awareness Month with cyber security a more prominent issue than perhaps ever before.

Britain's largest automotive employer, major manufacturer January Land Rover, may have dominated those headlines for the past month, ever since it halted production back on 1 September, but the retail giants of M&S, Harrods and Co-op, as well as numerous aviation-related incidents, have all received widespread media attention too.

Whatever the motivation for these attacks, or the specific tactics used, the most important thing to remember is that it's not just these well-known names that are being targeted. SMEs are also in the firing line. Statistics show cyber-attacks are fast becoming more a question of when not if, and yet levels of cyber insurance take-up remain relatively low.

Research earlier this year by cyber insurance specialist Pen Underwriting, found that firms in the UK and Ireland are five times more likely to be the target of a cyber-attack than suffer flood damage, and yet less than half (47%) have dedicated cyber cover<sup>1</sup>. Of those targeted in the past five years, 81% said the attack posed a serious threat to their business, 74% had suffered disruption and financial loss – and 80% had been targeted more than once.

The picture is starker for SMEs. UK Cyber security statistics also show that 43% of cyber-attacks target SME businesses, and 60% of these SMEs that fall victim to a cyber-attack, go out of business within six months.<sup>2</sup>

Business owners barely need a reminder that cyber security matters when high-profile attacks on critical infrastructure have rippled across the globe in recent years, leaving communities, corporations and countries without access to resources like gas, goods, transportation and more. It's more important than ever that steps are taken to improve cyber resilience in the event of an attack.

Ransomware is the biggest cyber threat that UK organisations face, and phishing is a common route for cyber criminals to infect networks. We know that phishing emails are getting harder to spot, but there is guidance available on what to look out for, and how to improve your organisation's resilience. The UK government's Cyber Security Breaches Survey 2025 found that phishing accounted for 93% of all cyber-crime in the UK.

We'd encourage all organisations to familiarise themselves with the National Cyber Security Centre (NCSC) advice on mitigating malware and ransomware attacks.

## So, what can UK SMEs do to protect themselves?

For many small to medium-sized businesses, it's just not feasible to spend a significant proportion of their profit on a Cyber protection strategy. However, here are some things they can do:

- Educate your employees about their role in your organisation's cybersecurity
- Use Multi-Factor Authentication (MFA)
- Ensure regular software/security updates are carried out
- Sign up to [Cyber Essentials](#)



password management system (including hardware/firmware system-set passwords)

- Control access to sensitive data or systems
- Take daily backups that are kept off-site

### What about Cyber Insurance?

According to the UK Government's 2025 Cyber Security Breaches Survey, around 43% of UK businesses currently buy Cyber insurance, although the number that have a specific Cyber insurance policy is only around 18% for SMEs. This is despite 43% of the businesses surveyed stating they suffered an attack in the previous 12 months<sup>3</sup>.

Here's a sample of some of the reasons businesses don't believe they need Cyber Insurance:

- **We've never been hacked before**
- **We're compliant with GDPR, PCI DSS and other regulations, so we're secure**
- **We've invested in IT Security, so we don't need Cyber Insurance**
- **We outsource IT, so our provider will cover any costs if they're hacked**
- **We don't collect or store any sensitive data, so Cyber insurance isn't necessary**
- **We're too small to have a Cyber attack**
- **We're already covered under other insurance policies**

For many businesses, the reality is that they were targeted; their systems weren't robust enough to prevent a breach, and there was no insurance cover in place to help cover the costs.

It's important to remember that specialist cyber insurance policies offer much more than simple indemnification of costs incurred. They can offer firms not only the proactive risk management tools and training to maximise their resilience, but also immediate access to a range of breach response expert services should the worst happen. This post-incident provision will seek to maximise speed of data and systems

restoration and thus minimise any downtime. Typically, both risk management and breach response services are provided at no additional cost.

Cyber insurance is therefore a valuable tool to consider in your Cyber strategy; the better policies now include:

- Vulnerability scans & ongoing monitoring
  - Browser firewall
  - Inbox protection
  - Phishing simulations
  - Tailored training for employees
  - Access to specialist support in the event of a system breach
- These policies can be also tailored to provide cover for the areas that most businesses are concerned about – social engineering, phishing, and ransomware.

***For more information get in touch with the OAMPS team today.***

*The sole purpose of this article is to provide guidance on the issues covered. This article is not intended to give legal advice, and, accordingly, it should not be relied upon. It should not be regarded as a comprehensive statement of the law and/or market practice in this area. We make no claims as to the completeness or accuracy of the information contained herein or in the links which were live at the date of publication. You should not act upon (or should refrain from acting upon) information in this publication without first seeking specific legal and/or specialist advice. Pen Underwriting Limited and OAMPS Hazardous Industries (part of Pen Underwriting Limited) accepts no liability for any inaccuracy, omission or mistake in this publication, nor will we be responsible for any loss which may be suffered as a result of any person relying on the information contained herein.*

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2. <https://www.salford.ac.uk/business/greater-manchester-cyber-foundry/cybersecurity-isnt-a-priority-for-smes-right-change-your-strategy>
3. [https://www.gov.uk/government/statistics/cyber-security-breaches-survey-2025/cyber-security-breaches-survey-2025#:~:text=Encouragingly%2C%20small%20businesses%20showed%20improvement,51%25%20in%202024\)%2C%20and](https://www.gov.uk/government/statistics/cyber-security-breaches-survey-2025/cyber-security-breaches-survey-2025#:~:text=Encouragingly%2C%20small%20businesses%20showed%20improvement,51%25%20in%202024)%2C%20and)



## Klüber Energy Efficiency

How chemical companies can use specialty lubricants to increase system reliability and achieve their sustainability goals at the same time

**KLÜBER**  
LUBRICATION  
your global specialist

### BRIEF SUMMARY

Chemical companies are increasingly looking for new ways to help them achieve their wide-ranging objectives: To minimise downtime; to decrease energy consumption in order to meet social goals and political requirements in terms of environmental protection; to counter increasing cost pressure in the best possible way and to improve plant safety.

The use of specialty lubricants, especially in rotating equipment, for example, is a simple and often underestimated approach that companies can adopt at relatively little cost to significantly reduce their energy consumption and therefore their direct or indirect CO2 emissions.

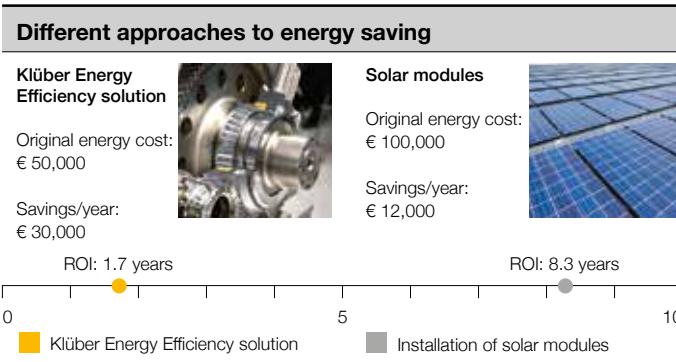
Besides better energy efficiency, specialty lubricants offer a wide range of additional benefits, e.g. lower

friction, wear, and operating temperatures, all contributing to less downtime for maintenance and relubrication as well as more reliable operation at lower component and lubricant cost.

The Klüber Energy Efficiency solution is designed to prove and quantify the reduction of energy consumption after a changeover to Klüber lubricants. When conducting a Klüber Energy Efficiency project, the Klüber specialists will determine all saving potentials of the machinery involved, measure power consumption before and after the optimisation, provide a professional analysis of the data and translate the measurement readings into tangible savings. With this approach chemical companies can realise potential savings and reduce their energy costs.

The role of lubricants, which can have a large impact, is often overlooked. The smart selection of a specialty lubricant, precisely matched to the application, offers unimagined scope for energy saving. In terms of payback time, lubricants often yield much better results than cost-intensive design changes and renovations.

To summarise: Lubricants offer new ways to achieve sustainability goals, lower costs and an improved reliability of chemical plants through simple measures without major design changes.



**Klüber Energy Efficiency solutions are more effective than conventional solutions**

The focus is not only on savings in percent but also on real savings in energy costs, kWh, CO<sub>2</sub> and break-even point/ROI

## STRICT AUDIT REGULATIONS WITH ISO 50003

For more and more companies, certification of their energy and resource management plays an important role. The current version of ISO 50003 contains fundamental requirements for companies wishing to have their energy management system certified. In accordance with the standard, auditors require proof of

## DEMONSTRABLE EFFICIENCY IMPROVEMENT ACHIEVED WITH LUBRICANTS

Optimising the energy efficiency of production equipment through lubricants is not straightforward, and neither is its quantification, also in terms of monetary savings. In order to achieve particularly high energy efficiency, not only the lubricant but the entire system must be considered. Measures such as cleaning, changing seals and selecting the optimum viscosity grade also play a major role. A valid statement about the energy efficiency of a lubricant solution can only be made based on a before/after comparison. One indicator for improved energy efficiency is the reduction of the temperature at the application.

the energy efficiency measure taken, normally backed up by measurements. For both initial certification and re-certification, companies must therefore prove that they are continuously improving their energy efficiency. For this purpose, Klüber offers a systematic approach that supports companies in achieving their goals and validating improvements.

### Business case – gears

**Internal mixer in the tyre industry:**

- Operating hours: 7,680 hours
- Filling amount: 1,400 litres
- Average power consumption: 766 kW
- Energy price: EUR 0.10/kWh

**Financial analysis:**

- Investment: EUR 10,430
- Yearly saving: EUR 14,846
- Payback time: 8 months

**Impact on the environment:**

- Yearly energy consumption: 5,883 MWh
- Yearly energy saving: 165 MWh
- CO<sub>2</sub> saving: 100.6 tonnes



### Business case – compressors

**Compressor**

**Technical aspects:**

- Operating hours: 7,600 hours
- Filling amount: 40 litres
- Average power consumption: 100 kW
- Energy price: EUR 0.13/kWh



**Financial analysis:**

- Investment: EUR 460
- Yearly saving: EUR 2,717
- Payback time: 2 months

**Impact on the environment:**

- Yearly energy consumption: 836 MWh
- Yearly energy saving: 20.9 MWh
- CO<sub>2</sub> saving: 12.5 tonnes

## ENERGY EFFICIENCY SOLUTION FROM KLÜBER LUBRICATION

With Klüber Energy Efficiency, Klüber Lubrication has developed a solution that helps to systematically identify and realise the existing potential for increasing the efficiency of a plant. Klüber Energy Efficiency projects offer the advantage that demonstrable energy cost savings can be achieved with relatively little effort on the part of the customer. In each Energy Efficiency project, Klüber Lubrication develops a solution together with the customer, taking into account the specific conditions in the plant. This solution normally goes beyond mere lubricant recommendations.

A Klüber Energy Efficiency project includes the professional assessment of savings potential in the tribological systems, measurement of the energy consumption before and after the solution is introduced, professional analysis of the measured data and translation of the measurement results into concrete information about the financial savings achieved. Based on the analysis of the tribological system, a high-performance lubricant is selected for use after the first measurement. Then the second measurement is performed. In addition, the facility in question is analysed holistically.

## CONTACT

**Bilal Al-Khanchi**

Area Sales Manager – North East & Scotland

Klüber Lubrication GB Ltd

Mobile: **+44 7542 027583**

Email: [bilal.alkhanchi@klueber.com](mailto:bilal.alkhanchi@klueber.com)

LinkedIn: [Bilal Al Khanchi](#)

or visit <https://www.klueber.com/uk/en/products-service/services/performance-analysis/klueberenergy/>



# Carbon Capture in the Oil and Gas Industry

The oil and gas industry is increasingly turning to carbon capture technology to reduce its environmental impact. Carbon capture involves capturing carbon dioxide (CO<sub>2</sub>) from industrial processes such as power plants and refineries and then storing it away from the atmosphere. This process helps to reduce emissions of greenhouse gases, which are responsible for climate change.

Carbon capture has been around for some time, but recently there has been an increased focus on using it to help amplify oil production. This includes using CO<sub>2</sub> for enhanced oil recovery (EOR), which involves injecting CO<sub>2</sub> into existing oil fields to increase their yield. It can also be used in combination with other technologies such as hydrogen fuel cells, which can produce clean energy while reducing emissions.

In addition, carbon capture can be used in conjunction with other technologies such as carbon utilisation and storage (CCUS). CCUS involves capturing CO<sub>2</sub> from industrial sources and then storing it away from the atmosphere in underground reservoirs or other geological formations. This helps to reduce emissions while also providing a potential source of revenue for companies that invest in this technology.

Finally, there is a growing interest in using carbon capture for net zero emissions targets. Companies are looking at ways to use this technology to offset their own emissions by capturing and storing CO<sub>2</sub> from industrial processes or even directly from the atmosphere itself.

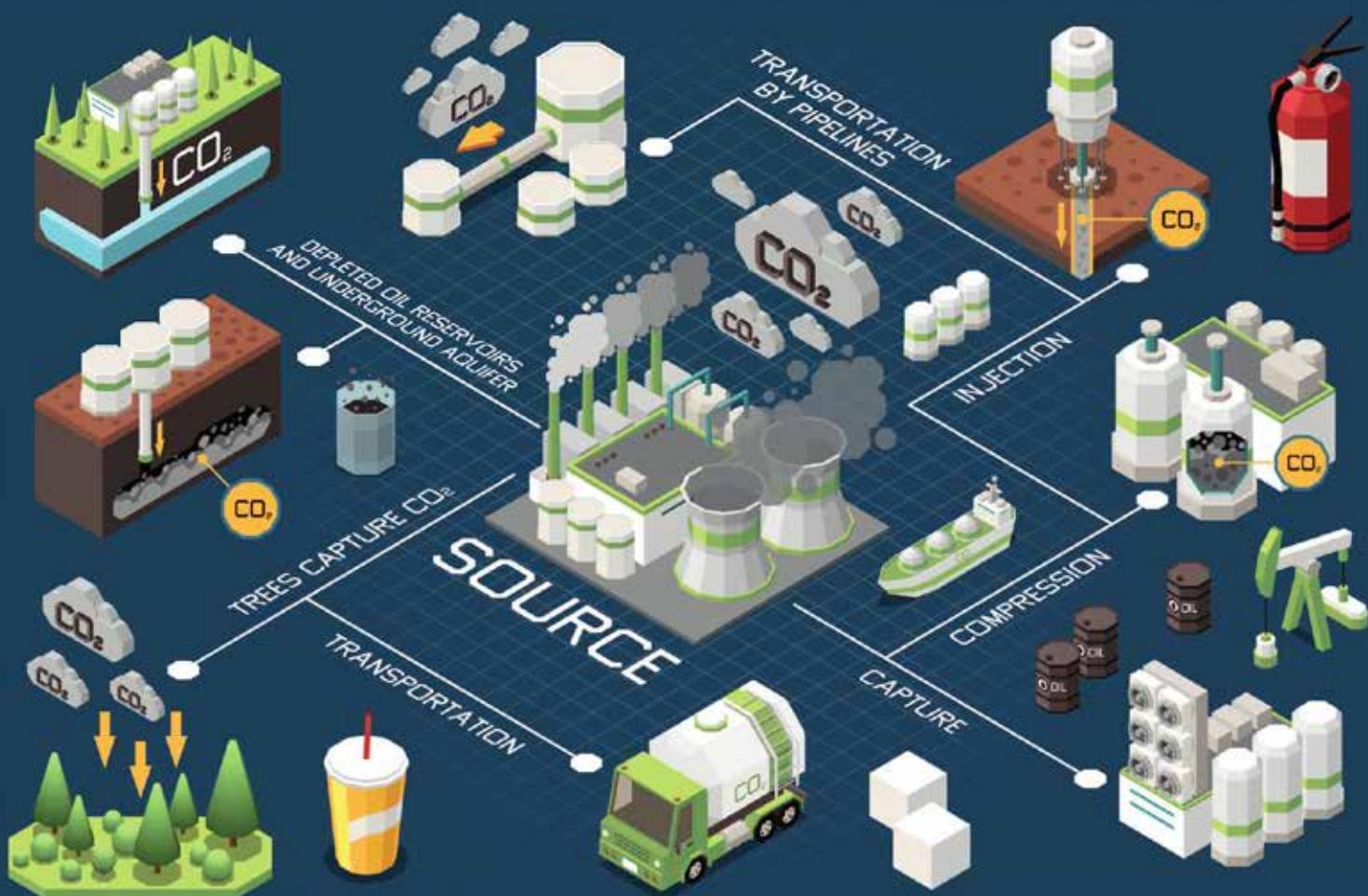
Overall, carbon capture is becoming an increasingly important part of the oil and gas industry's efforts to reduce its environmental impact. By investing in this technology, companies can help reduce emissions while still producing the energy they need to meet global demand.

Take a look at the report on [Valve Lubricants for Carbon Capture and Storage Operations \(CCUS\) | RS Clare when](#)

**RS Clare** teamed up with Schlumberger and a prominent IOC (International Oil Company) to conduct a detailed analysis on Valve Lubricant 601TM and how it behaves when mixed with Supercritical CO<sub>2</sub>.

RS Clare is a globally recognised manufacturer of advanced lubricants, supplying high-performance greases and application equipment to the Oil and Gas, Rail, Wire Rope, Private Label and Road Markings markets we serve. RS Clare is dedicated to helping their customers operate more efficiently, sustainably, and profitably by delivering high-performance, lubrication solutions. The company's focus is on developing products that create lifetime value for their customers.

*For further information visit [www.rsclare.com](http://www.rsclare.com)*



# The female f(o)unding dilemma

With the rising limelight of female entrepreneurs, it is easy (and good) to feel encouraged about the progress in the business world towards diversity and more gender-equality in the workplace in the UK. However, when looking at the cold and hard facts, we must come to realise that we still have a long way to go to achieve an environment that allows female-led businesses to thrive in the same degree.

The British Business Bank Equity Tracker Report 2023 shows the significant discrepancies between funding received by female-led vs. male-led businesses. Whilst all female-founder teams raised £232m in 2023, their all-male counterparts raised a staggering £6.5bn, meaning women only secured 8.2% of all deals in 2023, showing only little improvement over the past decade.

In conversation with Elin Haf Davies, who has successfully founded, scaled and exited Wrexham based Aparito, a med-tech business building a software platform to support patients taking part in global clinical trials, we are discussing her first-hand experience as a founder in the tech world and the change, that is still needed to support female founders moving forward.

## In your opinion, what are the contributing factors leading to the results in the British Business Bank report?

Part of the reason is that less women compared to men may want to start a business that requires investment – and therefore you may have a slightly smaller pool of women coming through.

There is also a perception that women are more likely to start a lifestyle business or that they are more risk averse. But that only accounts for a very small part of the problem in my opinion. The main problems are that female founders are judged through different lenses than male founders. Investors are more likely to invest in people that look and speak the same way as they do and as there are very few women on the investment side too it becomes an echo chamber.

## Do you feel that the tech/ healthcare sectors are especially inaccessible for female founders? If so, why do you believe this is?

We were falling between two funds – we weren't quite tech and we weren't quite life science which made it even harder. Both sectors are just also inherently male dominated so while female founders might be honest in their decks/ answers, they get compared to a lot more bravado and noise which sets unrealistic expectations.

## What has set you and Aparito apart to be able to achieve the funding you have?

Our investors were essentially social impact investors who bought into the mission as much as the financial return. Thankfully we were able to hold true to our mission and give them a healthy return.

## What can be done to close this gap in the future?

To achieve the economic growth and resilience that we need, we need to ensure that 50% of the population are fairly invested in. Data also tells us that women build better businesses in terms of social/ environmental impact and financial returns.

I would be in favour of redacting the team profile for names/ gender/ identity for initial screening as a starter so that we at least get a fair chance of getting through the door. Maybe we should also mandate that all funds must invest 30% of their funds to female founders by 2030 to echo some of the 30% Club aspirations. While quotas are not perfect it would at least help to force the needle.

Elin Haf Davies,  
Aparito

*By Nina Richards,  
Senior Executive Search  
Consultant. For further details  
visit [www.rmg-uk.com](http://www.rmg-uk.com)*



# Moving chemicals safely and reliably: how Rhenus Logistics gets it right

Transporting hazardous chemicals isn't just about getting goods from A to B. It's about protecting our customers' reputations every step of the way. At Rhenus Logistics, we understand what's at stake, and we've built a specialist service designed to deliver dangerous goods safely, efficiently, and in full compliance with ever-evolving regulations.

With decades of experience in international freight forwarding, our chemical logistics experts – including our colleagues at Air & Ocean – work closely with clients to find the safest and most practical route for every shipment. Whether it's road transport under ADR regulations (the European Agreement concerning the International Carriage of Dangerous Goods by Road), sea freight governed by IMDG rules (International Maritime Dangerous Goods Code), or air cargo compliant with IATA standards (International Air Transport Association), we have the knowledge, people and systems in place to keep things running smoothly.

## Specialist knowledge and dedicated equipment

Our teams are fully trained in the handling and movement of hazardous materials. We stay up to date with the latest regulatory changes across the UK, Europe, and beyond. Every driver holds ADR certification, and we assign Dangerous Goods Safety Advisers (DGSAs) to support and oversee complex moves. Our fleet of specialist vehicles, including tanker trucks, temperature-controlled units, and adapted trailers, are all fully equipped to carry chemicals safely. For international movements, our multimodal services offer smooth transitions between road, rail, sea, and inland waterways, supported by our global Control Tower and real-time track-and-trace systems.

## Commitment to safety and compliance

Safety is at the heart of everything we do. From the moment a consignment is booked, we verify classification, packaging, labelling, and documentation to ensure full compliance with the relevant transport codes.

Across Europe, our facilities include over 150,000m<sup>2</sup> of hazard-rated storage space. These are equipped with fire suppression systems, gas detection, spill containment, and secure segregation by chemical class. Through our wider Rhenus network, including Air & Ocean, we offer robust storage and transport solutions tailored to chemical logistics.

## Adding value throughout the journey

Many of our clients also benefit from services such as re-labelling, sampling, repackaging, customs clearance, and certificate management. These added-value options streamline the supply chain and reduce the need for multiple providers, offering greater peace of mind and control.

## Looking ahead

As proud new members of Chemicals Northwest, we're looking forward to supporting the safe, responsible growth of the UK's chemical supply chain. Whether you're navigating complex international routes or need a logistics partner with deep industry knowledge, Rhenus is ready to deliver.

## About Rhenus

The Rhenus Group is one of the leading logistics specialists with global business operations and annual turnover amounting to EUR 8.2 billion. 41,000 employees work at 1,330 business sites in more than 70 countries and develop innovative solutions along the complete supply chain. Whether providing transport, warehousing, customs clearance or value-added services, the family-owned business pools its operations in various business units where the needs of customers are the major focus at all times.

*[For further details visit Global logistics service provider for holistic solutions | Rhenus](#)*



# Managed Service: the Strategic answer to evolving client challenges

The chemicals sector in the Northwest is changing fast. Organisations face relentless pressure: deliver projects quickly, maintain compliance and manage costs - all while adapting to market shifts. These challenges demand more than transactional support. They require strategic partnerships that embed expertise and flexibility into every stage of delivery.

## The client reality: complexity and continuous demand

- **Capital projects under time pressure.** Delays impact competitiveness and profitability
- **Regulatory compliance as a constant.** Meeting evolving standards requires robust governance
- **Resource constraints.** Skilled teams are scarce, and scaling capacity is difficult
- **Visibility gaps.** Without accurate reporting, risks escalate and decisions stall

These pain points aren't isolated - they're systemic. And they call for a model that goes beyond traditional resourcing.

## The Managed Service Advantage

PM Group's Managed Service delivery model is designed to address these challenges head-on. It's not just about operational efficiency - it's about enabling client ambition.

### Speed and Simplicity

Streamlined engagement mechanisms mean projects start sooner. Delivery accelerates without compromising quality, helping clients hit CapEx targets in a controlled, proactive way.

### Flexibility and Scalability

Our model adapts as client needs evolve. Teams ramp up or down seamlessly, supported by rolling portfolio planning for efficient resource allocation.

### Cost Control and Predictability

Transparent structures and efficient utilisation deliver savings and certainty - critical for long-term planning.

### Embedded Expertise

Clients gain access to multi-disciplinary teams on-site, backed by PM Group's specialist network. From Process Safety to Sustainability and HSE consultancy, we bring best practice and innovation directly into client environments.

### Governance and Risk Management

Structured methodologies ensure safety, compliance, and quality—especially vital in regulated sectors.

### Enhanced Visibility

Accurate, timely reporting enables better cost and schedule tracking, with early risk identification.

### Technology Enablement

Digital tools and managed CAD/BIM services enhance delivery and asset management, driving operational efficiency.

*"Managed Service isn't a support function - it's a strategic partnership.*

*By embedding teams within client operations, we deliver continuous improvement and proactive problem-solving. This approach fosters long-term relationships and shared ownership of outcomes," said Chris Hayes, PM Group.*

*"We're here to help clients focus on what they do best, while we take care of the rest. It's about enabling ambition."*

**Chris Hayes**  
UK Head of Managed Services



For organisations in the UK and Northwest, the message is clear: agility, expertise, and governance are non-negotiable. PM Group's Managed Service model delivers all three - helping clients navigate complexity and achieve their goals. From initial contract set up to full delivery execution, we ensure a seamless transition that makes change effortless and keeps projects moving forward with confidence.

**Your ambition drives us. Together, we deliver progress.**

**Find out more at [www.pmgroupprojects.com](http://www.pmgroupprojects.com)**





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# Looking to upskill?

IChemE is a market leader in professional training for the chemical, process and related industries.

Visit our website to browse the extensive range of courses on offer and search upcoming dates – online or face-to-face.

We also offer on-demand courses for independent learning when it suits you.

If you have a team to train, our expert trainers will come to you and provide customised courses if needed.



## Process safety

- Hazard identification and risk analysis techniques (including HAZOP and LOPA)
- Process safety management
- Understanding different hazards (eg hydrogen)
- Human factors in the chemical and process industries



## Contract and project management

- Contract law for engineering contracts
- Engineering project management
- Applying the IChemE Forms of Contract



## Process and plant operations

- Chemical engineering core concepts
- Distillation technology
- Plant and production management
- Scale-up of chemical processes



## Sustainable process engineering

- Introduction to sustainable process engineering
- Sustainability leadership
- Sustainability measurement
- Material resource management and the circular economy

Search our courses at [www.icheme.org/training](http://www.icheme.org/training)

# Global Collaboration and Regulatory Insights at the 2025 CIRS Conference

On 24 September, CIRS Group proudly hosted its annual Global Chemical Regulations Conference, welcoming more than 100 delegates from 20 countries. The full-day event brought together regulators, industry leaders, and experts to discuss the evolving global regulatory landscape, share practical guidance, and strengthen international collaboration across the chemical sector.

From start to finish, the energy in the room was clear: delegates connected with colleagues old and new, explored fresh ideas, and left with practical updates to support their work.

## Key Highlights from the Sessions

The day began with Marko Susnik (Austrian Federal Economic Chamber), who provided a comprehensive overview of the latest developments in EU chemical policy. He covered revisions to REACH, PFAS restrictions, new microplastics rules, and changes to CLP.

**Dr. Kathryn Tearle** (British Coatings Federation, CHCS) followed with a detailed UK chemicals update, covering UK REACH, GB CLP, BPR, and PIC. She offered clarity on transitional deadlines and divergence from EU legislation – key insights for companies navigating post-Brexit compliance.

**Anniken Buverud** (ISN) addressed supply chain visibility, highlighting the growing importance of traceability and resilience. She showed how digital tools like Transparency-One can help organizations anticipate disruption and meet ESG commitments.

**Ziannah Pasion** (EPY) examined global GHS implementation, revealing how regional variations continue to create complexity for international trade. She introduced EPY X, a digital solution designed to streamline global hazard communication and compliance.

A morning panel discussion, moderated by **Tom Bowtell** (BCF), explored resilience and innovation in the chemical sector. Panelists discussed building a skilled workforce, improving recyclability, cutting energy costs, and balancing sustainability with business growth. They called for “sensible” regulation that safeguards health and the environment without hindering innovation.

In the afternoon, **Dr. Ricki Rosenfeldt** (nEcoTox) shared a CRO perspective on nanospecific testing, outlining parameters – particle size, dissolution, dispersion stability – essential for nanosafety evaluation.

**Jay Ingram** (Humane World for Animals) then spoke on animal-free safety assessment, introducing global strategies and regulatory progress in Non-Animal Methods (NAMs) and Next Generation Risk Assessment.

Panel from left to right: Gunther Van Kerckhove (Lead Manager, product safety and regulatory affairs at OCSiAl Group), Yana Trubitsyna (Regulatory Queen at REGARTIS), Ian Cranshaw (head of international trade and regions at Chemical Industries Association - CIA), Marko Susnik (Senior Advisor at the Austrian Federal Economic Chamber - WKO) and moderator Tom Bowtell (Chief Executive Officer of the British Coatings Federation - BCF).



**Kyonga Park** (CIRS Japan) provided a valuable overview of the Asia-Pacific regulatory landscape, covering updates from China, South Korea, and Japan. Her presentation addressed practical topics such as registration hurdles, QR code labeling, and chemical control law revisions across the region.

**Özüm Özbeğ** (CHEMLEG EUROPE B.V.) followed with a timely session on Türkiye's KKDIK regulation, focusing on the new “Principles and Procedures” update effective January 2025. She clarified preregistration, data sharing, and lead registrant coordination, offering companies a roadmap for compliance.

The final panel discussion, moderated by **Tim Doggett** (Chemical Business Association), examined securing the chemical supply chain amid disruption and regulatory change. Panelists discussed crisis lessons, the growing role of AI and digitalization, and the importance of open markets. They warned that protectionist policies could hinder innovation, contrasting this with China's openness, which now underpins half of global chemical production.

## Networking and Global Connection

Beyond the presentations, delegates enjoyed rich networking opportunities throughout the day. Conversations continued over coffee breaks and at the evening reception, where new partnerships were formed and collaborative ideas took shape. The traditional group photo captured the spirit of a truly global community committed to advancing safer, smarter chemical management.

## Acknowledgements and looking ahead

CIRS extends sincere thanks to this year's sponsors – REGARTIS, EPY, CHEMLEG, Lisam, and Where to Buy – for their invaluable support. Feedback from attendees and on LinkedIn has been overwhelmingly positive, reflecting the conference's growing role as a key meeting point for the global regulatory community.

**Planning is already underway for 2026, and CIRS hopes to welcome even more Chemicals Northwest members. [Email conference@cirs-group.com](mailto:conference@cirs-group.com) to register your interest.**



# Atlas Copco Rental Introduces 4.6Ti+ Steam Boiler for Emergency Applications

Atlas Copco Rental UK and Ireland has bolstered its steam offering with the introduction of a 4.6Ti+ Steam Boiler, a robust solution designed to meet urgent steam needs with efficiency and minimal environmental impact.

Tailored for industries requiring rapid response, the integrated unit offers powerful performance with a compact footprint, empowering customers to maintain operations without compromise.

The 4.6Ti+ Steam Boiler elevates Atlas Copco Rental's commitment to sustainable and high-performance solutions. The unit's integrated smoke economiser supports its 95% operating efficiency and its low NOx dual fuel burner, means it can operate on natural gas or oil.

Furthermore, key operating data is continuously collected and analysed to inform operations. Such as through the Variable Speed Drive (VSD) burner, which adjusts fuel and air intake to match the load demand, and the O2 regulation system monitors flue-gas oxygen levels and controls the fan speed accordingly. This intelligent monitoring not only maximises fuel efficiency and lowers emissions but also enhances reliability by ensuring stable steam quality and predictive maintenance.

Utilising Atlas Copco Rental's 'plug and steam' approach, the unit can be mobile or integrated, ensuring a quick turnaround to avoid costly downtime. Its three-pass boiler shell ensures pressure consistency (16 barg design pressure) and steam quality.

Sean Clemens, UK Sales & Business Development Manager at Atlas Copco Rental, said: "I'm delighted that, through the new 4.6Ti+ unit, we can continue to support a wide range of industries with access to a small but powerful steam boiler that is not only highly efficient but is also environmentally responsible."

"The new unit joins the 8Ti Steam Boiler in our hypermobile "plug and steam" range, and offers even more flexibility compared to its larger predecessor. And with our strategically placed depots in Dundee, South Shields, Gloucester and Cork and a newly appointed dedicated Steam Sales Engineer we're in a stronger position than ever to support our clients with steam in an emergency situation."

The company will be hosting launch events of the 4.6Ti+ Steam Boiler across its UK depots to demonstrate its capabilities later in the year.

Atlas Copco Rental UK and Ireland specialises in the provision of state-of-the-art temporary compressed air, nitrogen, power modules and steam boilers for short or long-term demands, planned contingencies or unexpected emergencies.

In addition to its rental assets, Atlas Copco Rental UK and Ireland also provides a host of supporting services including freight and logistics; installation, commissioning and decommissioning; fuel management and energy management; on-site operators; training, supervision, and specialist technicians.

*For more information, visit [www.atlascopcorental.com](http://www.atlascopcorental.com)*





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## Scale-up of Chemical Processes

Explore the main challenges and risks in chemical process scale-up and how to avoid common issues.

[www.icheme.org/scale-up](http://www.icheme.org/scale-up)

## Chemical Engineering for Scientists and Other Engineers

Learn about the core concepts in chemical engineering and its approach to problem-solving.

[www.icheme.org/chemical-engineering](http://www.icheme.org/chemical-engineering)

Search our courses at [www.icheme.org/training](http://www.icheme.org/training)

|ChemE

# Introducing the Metrohm i-Raman NxG

## Accelerate Quality Control with Laboratory Raman

Metrohm is proud to announce the launch of the i-Raman NxG, a next-generation laboratory Raman spectrometer designed to enhance precision and performance in routine quality control measurements. The i-Raman NxG continues Metrohm's tradition of quality, offering advanced features that enable faster measurements, improved sensitivity, and greater sampling flexibility.

Alongside the innovative i-Raman NxG, we are introducing SpecSuite — a versatile software platform designed to make research and routine analysis more accessible. SpecSuite's method development tools and 21 CFR Part 11 support boost efficiency and ensure compliance.

### Accelerate Quality Control

The i-Raman NxG is engineered to improve traditional QC measurements. Combining Raman with reference instruments for backup and support simplifies your SOPs, makes quality testing easier, and provides faster results without sacrificing accuracy. Sample preparation is unnecessary, and results are delivered faster.

### One Tool, Countless Options

The i-Raman NxG offers outstanding measurement and sampling flexibility, making it an ideal choice for QC laboratories. Its fiber probe can connect with various sampling accessories, enabling users to easily measure liquids, solids, gels, pills, and powders. i-Raman NxG is a reliable partner

designed to keep up with the demands of a busy quality control laboratory.

The i-Raman NxG is available in three different excitation wavelength options, covering a broad range of samples. The patented i-Raman Duo utilises two lasers and a single detector to extend measurements into the stretch region of the spectrum, offering the broadest range of data for precise analysis.

### Software Made Simple

The i-Raman NxG is controlled with SpecSuite software, an all-in-one platform that facilitates Raman measurements from exploratory research to routine testing. Designed for users of all skill levels, SpecSuite makes developing and running methods straightforward. Additionally, it ensures FDA 21 CFR 11 compliance for regulated laboratories.

"The i-Raman NxG with SpecSuite software enhances the capabilities of laboratories, from factories to universities," said Nancy Morris, President and CEO of Metrohm Spectro. "Samples can be analysed with the broadest range of data possible using the i-Raman Duo. SpecSuite software replaces the frustration of model development with streamlined analysis."



For further

information visit

[https://www.metrohm.com/en\\_gb.html](https://www.metrohm.com/en_gb.html)

# A Quantum Leap in Pump Efficiency: Smarter, Cleaner, and More Cost-Effective



Making the right choice...

The industry of tomorrow isn't expensive, complicated, or a burden on your team. It's smart, simple, cost-effective, and environmentally responsible.

With rising energy costs top of mind for many manufacturers, reducing consumption is a priority—especially in energy-intensive operations like pumping. Air Operated Double Diaphragm (AODD) pumps are a common solution across industries due to their versatility. However, they come with notable drawbacks: high energy usage (10–15% efficiency), noisy operation, expensive compressed air requirements, icing issues, complex maintenance, and inefficiencies when running dry.

## Enter Quantm: The Smarter Alternative

Quantm pumps retain the hydraulic performance and footprint of AODD units but eliminate many of their inefficiencies. These electric-operated pumps run at up to 80% efficiency, are quiet, and require no compressed air—removing the risk of icing altogether. With integrated controls, automated priming, fewer moving parts, and plug-and-play installation, Quantm units offer a reliable, easy-to-maintain alternative.

## Real-World Impact: Case Study from a Major Cardboard Manufacturer

A leading cardboard manufacturer operating 11 sites across the UK wanted to reduce energy consumption and maintenance costs tied to their AODD pumps. Each site uses 7–10 AODDs (1.5" and 2"), pumping starch around the clock, five days a week almost year-round.

CDR Pumps supported a trial replacement of AODDs with Quantm units at one site. Energy use was monitored using direct measurements—air consumption for the AODDs and kilowatt usage for the Quantm.

## Trial Results:

- **AODD Pump:** 47,813 kWh/year
  - **Quantm Pump:** 5,880 kWh/year
  - **Annual Energy Cost**  
(at £0.21/kWh):
    - AODD: £10,041
    - Quantm: £1,235
  - **Annual Savings per Pump:** £8,806

Following the successful trial, seven AODD units were replaced. Thanks to the identical footprint, installation required minimal modifications. Live data confirmed an average saving of 7.5 kWh per pump, translating to **334,687 kWh saved annually** across the site—cutting energy costs by **£70,284.37** and significantly reducing carbon emissions.



## Looking Ahead

Quantm pumps provide a direct and impactful route to cost savings, sustainability, and simpler maintenance—without sacrificing performance. For plants still relying on traditional AODD technology, the opportunity for improvement is immediate and measurable.

The industry of tomorrow is here—and upgrading isn't just a step forward. **It's a Quantum leap...**

If you want to find out more, call CDR Pumps on 01933 674777 or email [sales@cdrpumps.co.uk](mailto:sales@cdrpumps.co.uk)

## **Valvworx introduce NEW Customer online portal**

Using our bespoke, in-house designed asset management system, DATAWORX, we can encapsulate a history of all work carried out on each valve running through our workshop, which can help with your preventative maintenance, corrective maintenance and outage plans.

Every customer can now gain external access to our DATAWORX portal, where you can view all data input regarding your valves, and historical information on any other valves which have been sent to us previously.

You have real time access so you are able to see what stage of the overhaul process your valve is currently at, valve reports, engineer reports and information on any component parts which required work, any parts which need replacing and which parts were installed.

All data and its history is safely secured and stored on multiple external storage networks, so no information can be lost in the event of a data loss incident. Backups are regularly performed.

### **Information stored includes:**

- Your valves full data plate details (Manufacturer, model and serial numbers, type, body & trim materials, along with

process media,  
working temperatures  
and pressures).

Similar information on actuation and positioners is also stored.

- Tag numbers / plant location
  - Process conditions
  - Maintenance history
  - Certification

If you are interested in learning how DATAWORX can assist with your asset management, preventative and corrective maintenance contact Valvworx to access details.

Control Valve Information					
Serial Number	20014-1-2	Valve Action	Sliding Seat	Body Material	Cast Iron
Manufacturer	Toronto Valve	Fail Action	Open	Trim Material	Stainless
Model	21000	IV	Ca 110	Gasket Material	F700
Type	Diaphragm	Travel	2.5 mm	Packing Material	F700
Size	DN 100 (4")	Trim Size		Packing Type	Orbital
Rating	4000 psi	Characteristics	Level N	Duty / Process	Water
Leakage Class	1	Leak Rate (g/min)		Operating Pressure	
Actuator Information					
Manufacturer	Toronto Valve	Serial Number	21474-1-2	Characteristic	Diaphragm Acting
Model	Number	Serial Set	1	Max. Pressure	30 bar
Type	Air	Supply Range	Bar 1.5 - 6.0	Torque Value	0.12
Size	DN15	Action	Linear	Positioner	In-line Anti-surge
				Spring per side	
Positioner Information					
Manufacturer	Toronto Valve	Input Signal	3-15 psi		
Model	Number	Characteristic			
Serial Number	10074-1-2	Action	Reverse		
Type	P-F	Regulator	On		
Paint Colours					
Valve Body	Grey	Actuator	Red	Positioner	Blue
Previous Internal Notes					
1:					
2:					
3:					
Test Standards Criteria					
Actuator Test	Max torque	Test Pressure	60 psi	Pre-Function Check	Required
Body Test	3000 psi/44	Test Pressure	4000 psi	Pre-Body Test	Not
Seat Test	ANSI B16.10-1	Test Pressure	15 psi	Pre-Seat Test	Not

**E-mail: sales@valworx.co.uk or Telephone : 01925 982804**

## Bachem (UK) Ltd

Bachem is a leading, innovation-driven company specializing in the development and manufacture of peptides and oligonucleotides. The company, which has over 50 years of experience and expertise, provides products for research, clinical development, and commercial application to pharmaceutical and biotechnology companies worldwide and offers a comprehensive range of services. Bachem operates internationally with headquarters in Switzerland and locations in Europe, the US and Asia.

Within the Bachem group, Bachem (UK) Ltd is the Centre of Excellence for Research Chemicals and has been ISO 13485 certified since 2018 to manufacture peptides as critical raw materials for the medical device sector. We assist our partners at every stage of product development: from early-stage R&D through to commercialization. Together with our clients, we define the project requirements and establish a

robust manufacturing process for future commercial supply.

Our site in St Helens employs ~50 people and together we manufacture around 1,000 unique peptides every year. We utilise state of the art, automated equipment throughout our facility that support our efforts to efficiently produce peptides via techniques such as solid phase peptide synthesis and reverse phase HPLC to meet our customer expectations on quality and delivery.

Peptides are a rapidly growing modality in the pharmaceutical sector, largely driven by the so called GLP-1 agonist class of medication that were first developed for the treatment of type 2 diabetes but are now marketed as weight loss drugs.

Bachem (UK) Ltd's highly skilled and dedicated team offer our support and services to anyone looking to develop peptide based platforms for disease detection or treatment.

# BACHEM

### Contact:

Iain Pritchard Ph.D  
Site Manager (UK)

**T:** +44 (0) 1744 612108  
**E:** [ian.pritchard@bachem.com](mailto:ian.pritchard@bachem.com)  
**W:** [www.bachem.com/](http://www.bachem.com/)

### Office

1 Delph Court  
Sullivan's Way  
St Helens  
WA9 5GL

## Carbis Loadtec Group Ltd

Carbis Loadtec Group: Protecting People, Product and Plant Since 1996. Carbis Loadtec Group, formerly Loadtec, engineers specialist systems that help chemical manufacturers handle liquids, gases and powders safely and reliably. With extensive experience in filling and discharging road and rail tankers, IBCs and drums, the company supports a wide range of installations across the Chemicals Northwest region.

**Every project begins with one priority:** reducing risk. Whether delivering a FEED study, detailed design, installation, or commissioning, Carbis Loadtec focuses on safe access, secure containment and full control of the product during transfer. Its work spans fuels, edibles, acids, alkalis, and hazardous materials, yet the core challenges remain the same: preventing falls from height and ensuring safe, spill-free loading and unloading.

### Fall-Prevention Systems That Protect Operators

When working at height cannot be eliminated, operator safety becomes

essential. Carbis Loadtec offers one of the most comprehensive ranges of tanker access solutions, including elevating platforms, folding stairs, safety cages and mobile platforms. Each system is engineered to minimise fall risk, improve ergonomics and provide safe, confident access to tankers.

### Loading Arms for Safer Transfer and Containment

Uncontrolled product release poses serious safety, environmental and operational hazards. Carbis Loadtec manufactures top and bottom loading arms for liquid and gas applications, providing a closed, controlled and repeatable transfer method that replaces traditional hoses. This greatly reduces exposure to hazardous materials and supports cleaner, safer operations.

**Service That Maintains Safety Standards**  
Safety continues long after start-up. Carbis Loadtec offers annual inspections, planned preventative maintenance and tailored service packages to maintain compliance, protect system integrity and ensure long-term safe performance.

# CARBIS LOADTEC

### Contact:

Alex Brady  
Associate Director - Sales & Marketing

**E:** [alex.brady@carbisloadtec.com](mailto:alex.brady@carbisloadtec.com)  
**T:** 01303 813030  
**W:** [www.carbisloadtec.com](http://www.carbisloadtec.com)

### Office

Carbis Loadtec Group Ltd  
The Stables  
Coach House  
Smeeth  
TN25 6SP

**Carbis Loadtec -  
Your safety. Our mission.**

## Klüber Lubrication Great Britain Ltd

Klüber Lubrication is a trusted partner in the world of specialty lubricants.

Our deep technical expertise and customer-centric approach allowing us to work closely with industries to deliver high-performance solutions that keep operations running smoothly, even under the most demanding conditions.

In the chemical industry, where reliability and precision are paramount, Klüber's tailored lubrication solutions play a vital role.

Our products are designed to reduce energy consumption, extend equipment life, and minimise environmental impact, making them an asset to the chemical sector and beyond.

Our commitment to innovation and sustainability is at the heart of everything we do.

Klüber's lubricants deliver measurable benefits. In field use, they have significantly reduced downtime and maintenance costs. Customers report extended oil drain intervals, reduced waste oil disposal, and reduced TCO (total cost of ownership).

Klüber's oil analysis service also helps catch problems before they escalate, supporting predictive maintenance.

At Klüber, we partner with OEMs and plants to optimise compressor lubrication.

The outcome of our work is clearer compressor performance data, reduced unplanned outages, and quantifiable sustainability gains.

***Optimise performance. Minimise downtime.***

***Together Beyond Lubrication.***



### Contact:

**Bilal Al-Khanchi**  
Area Sales Manager – North East & Scotland

Klüber Lubrication Great Britain Ltd

**M:** +44 7542 027583  
**E:** [bilal.alkhanchi@klueber.com](mailto:bilal.alkhanchi@klueber.com)  
**W:** <https://www.klueber.com>

**Linkedin - Bilal Al Khanchi**  
<https://www.linkedin.com/in/bilal-chemeng/>

or visit [Lubricants for the chemical industry //Klüber Lubrication](#)

# Join and connect

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 a funded by our members and owned and supported by the Chemical Industries Association.

Why not join Chemicals Northwest and connect to this diverse and dynamic industry?

# 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/>

## Chemicals 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.

### Camida

Established in 1988, is a customer-focused supplier of specialised chemical products. We provide global sourcing solutions across industries, meeting strict international standards. Our expert sourcing team handles over 3,000 annual enquiries, ensuring seamless procurement. Camida simplifies your supply chain, acting as your trusted partner in sourcing and supply.

### 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 trademark, used in applications including medical, tracers, plasma-cleaning, cooling and cosmetics.

### Hibiscus

Hibiscus is one of the UK's leading manufacturers of chemical labels and hazard communication compliance software. For over 40 years they have specialised in providing high-quality labelling solutions for the chemical and hazardous goods industries and are renowned for their knowledge of industry legislation and for the durability and excellent performance of their products.

### 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 online diagnostics for predictive maintenance and improved plant availability.

### Indaver Solvents Ltd

Part of the international environmental group Indaver. Indaver Solvents offers comprehensive in-house and end-to-end solutions for industrial (non) hazardous solvent waste and recycling requirements. They support with lab analysis, pilot scale trials, and recycling at commercial scale. With their Cheshire-based solvent recovery installations, combined with bespoke fine chemicals manufacturing, they

provide continuous, sustainable and high-quality recovery solutions to the Chemical and Pharmaceutical industry. Find out more here - Solvent recycling - Indaver

### Keyser & Mackay

Keyser & Mackay is a market oriented agent and distributor of chemical raw materials and industrial equipment, acting as an intermediary between customers and suppliers. Keyser and Mackay NV has their headquarters in Amsterdam, Holland and has been active since 1894. With over 125 years' experience, the company's success today is down to reaping the benefits of all those generations of staff that have been or still are working for it. Today, the group has offices in the Netherlands, Belgium, France, Switzerland, Germany, Poland and Spain, and has started another chapter with the recent entry into the UK market.

### Klüber

Global manufacturer of over 2500 specialty lubricants for virtually every industry. Klüber Lubrication high-performance specialty lubricants and effective lubrication management programs enable customers to achieve their operational efficiency goals, increase reliability, and lower the total cost of ownership across assets.

### The Rhenus Group

**One of the leading logistics specialists with** global business operations and annual turnover amounting to EUR 8.2 billion. 41,000 employees work at 1,330 business sites in more than 70+ countries and develop innovative solutions along the complete supply chain. Whether providing transport, warehousing, customs clearance or value-added services, the family-owned business pools its operations in various business units where the needs of customers are always the major focus.

### Scott Pallets

An established timber pallet and packaging solutions business that delivers a wide range of goods and services to industrial, and manufacturing markets across the UK. We supply new manufactured pallets and packaging, reconditioned pallets and recover pallets across our strategic UK site network.

## Education, training & skills

### 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.

## IChEME

The leading professional qualifying body for chemical, biochemical and process engineers.

## Engineering products & services

### AM Technology

AM Technology are experts in continuous manufacturing solutions for the chemical and pharmaceutical industries with their patented Coflore flow reactor technology suitable for a wide range of chemical processes, including multiphasic reactions with slurries, from grams to kilotons.

### Beamex

Beamex helps its customers to find a better way to calibrate, according to the most demanding requirements of process instrumentation. Beamex offers a comprehensive range of products and services – from portable calibrators to workstations, calibration accessories, calibration software, industry-specific solutions and professional services.

### 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.

### Carbis Loadtec

Carbis Loadtec design, manufacture and supply safe road and rail tanker access systems and road / rail tanker, IBC and drum filling systems. Carbis Loadtec is leader in packaged solutions including loading arms, fall prevention systems, meter or blending skids and storage tank equipment.

### CRP

A leading provider of Fluoropolymer PTFE/PFA lined piping and associated equipment. Suppling everything necessary to construct fully integrated piping systems, whilst also offering ongoing support and education from their experts. Their products withstand the most challenging environments, ensuring safety and reliability in even the most demanding applications.

### Corroshield Industrial Services

A storage tank and infrastructure refurbishment contractor specialising in inspection, repair, protective coatings and linings designed to protect assets from chemicals, aggressive environments, corrosion, fire, CUI, weathering and degradation. From acid tanks to pipework and bunds, we maintain assets to ensure they remain safe and compliant.

## Know your supply chains

### Engineering products & services

#### Dron & Dickson

Dron & Dickson are recognised market leaders in the supply and maintenance of hazardous area electrical equipment. Our Engineering Services and Wholesale divisions offer bespoke solutions incorporating the very latest industry standard and safety legislation.

#### GPEC Group

Global Piping and Engineering Consultants. Made up of 4 business division including GPEC Ltd and GPEC Supply.

GPEC Ltd is the UK representative for manufacturers of valves, heat exchangers, expansion joints & other fabricated equipment for engineered and niche applications.

GPEC Supply is a supplier of valves and engineered equipment for MRO and Project specific requirements.

#### 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.

#### Langfields

Langfields are specialist fabricators of process plant equipment for the Hydrogen, Waste to Energy, Pharmaceutical, Petrochemical, Chemical, Nuclear and other process industries.

#### Lokring UK

Lokring UK offer technical engineering support and sales for Lokring technology across the UK. The Lokring "Cold Weld" pipe and tube joint reduces the need for hot work, NDT inspection and reduces on site resources. Code compliant with ASME B31. Lokring is a Safer, Faster, Lower Cost replacement for site welding and flanged fabrication.

#### 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.

#### METTLER TOLEDO

Mettler Toledo manufacture & service weighing, analytical and inspection equipment used throughout the product cycle from Research & Development, through Scale-Up & Production to Quality Control, Storage & Despatch. We work with our customers to understand and achieve their business goals, including key areas of safety, quality, productivity and sustainability.

#### O'Hare Engineering Design Ltd

Innovative, Detailed, Working Solutions. O'Hare Engineering Design Ltd. are providers of 3D laser scanning, mechanical and pipe design solutions. With over 18 years' experience, we know that accuracy is fundamentally the most important element in every engineering design project, so our client focused approach uses the latest technology to provide an effective solution that is sure to hit the brief, every time.

#### Perry Process Equipment Ltd

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

#### ProDecon®

Providing industrial service solutions to the Oil&Gas, Chemical, Power, Pharmaceutical and Industrial sectors. Specialising in hazardous hydrocarbon and chemical environments. ProDecon® has a unique range of technical expertise, that enables us to support customers with restoring process performance and providing maintenance risk management through bespoke industrial cleaning solutions.

#### 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.

#### Valvworx Ltd

Valve breakdowns are commonplace, and high on the list of painful problems for Chemical Plant Operators. At Valvworx Ltd, we can support you with valve maintenance & repair solutions, and offer advice, specification and supply of new valves, ensuring suitability for the process they are intended for, and lasting longer in service.

#### 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

#### Arthian

Combining three decades of high-hazard industry expertise with technical excellence to support every project phase, from feasibility and planning to design and construction. Our planning, environmental, engineering, and safety consultants deliver insights and innovative, sustainable solutions, empowering clients to make strategic, long-term decisions.

#### 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

A multi-award-winning, asset management solutions provider, supporting the chemical, pharmaceutical, oil & gas, bulk storage, power, renewables and related industries. With integration of their Materials, Mechanical, Inspection, Process Engineering and Process Safety Services, Axiom are uniquely positioned to identify and mitigate key through-life risks across the entire asset life cycle.

#### Cobalt Energy

Delivering specialist consulting, project delivery, and operational support across the waste, renewables, and energy sectors. Spanning the full project lifecycle, from technical and commercial consulting to engineering, construction, and operations, we provide practical, sustainable, and commercially viable solutions for new developments, facility optimisation, and expert due diligence.

#### Graham Hart (Process Technology) Ltd

Graham Hart Process Technology Ltd is a global leader in the design and manufacture of high integrity heat transfer and specialist pressure equipment. Their knowledge, reputation and expertise makes them the first choice for many companies desiring guaranteed mechanical and process design solutions, for their individual heat exchanger and pressure vessel needs. Providing innovative, bespoke solutions to a variety of sectors for over 50 years, they have a skilled, agile and talented team that has achieved a 100% On Time In Full delivery record for their clients since 2016.

#### Geosyntec

a consulting and engineering firm serving the chemicals, pharmaceuticals and wider manufacturing sectors addressing new ventures and complex problems involving land contamination, transactions, permitting and compliance, and civil infrastructure. We operate from over 130 offices located in the UK & Ireland, North America, Sweden, Spain, Middle East, and Australia.

#### John F Hunt Regeneration Ltd

John F Hunt Regeneration are a trusted partner for brownfield demolition, remediation, water treatment and enabling services. As part of the John F Hunt Group, we have the scale and financial stability to provide a complete works package no matter the size of the scheme.

#### PM Group

PM Group is an employee owned, international project delivery company operating across Europe, the USA and Asia. We have a 50+ year track record in project management, process design, process safety, facility design and construction management for leading multinational companies.

#### px Engineering

Deliver expert engineering, project delivery, and consultancy services across the energy, chemicals, oil and gas, and renewables industries. As part of px Group, we combine project execution capabilities with our knowledge and skills as owner and operator of Upper Tier COMAH facilities to support all phases of a project lifecycle from concept through to FEED, detail engineering design, procurement, construction, commissioning, and handover.

## Engineering, IT & process consultants

#### 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.

#### OpenPSM

OpenPSM® is a cloud-based software solution, developed to help businesses manufacturing or handling hazardous chemicals meet the requirements of modern risk-based process safety legislation. Providing a unique framework allowing you to log and assess every aspect of your company's process safety management programme,

OpenPSM® necessarily supports engagement from shopfloor to boardroom, allowing everyone with an active part to play in process safety to have relevant information to hand.

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

Siemens Digital Industries (DI) is a global leader in automation and digitalisation, dedicated to driving the digital transformation of the manufacturing and process industries. Their comprehensive Digital Enterprise portfolio offers an end-to-end suite of products, solutions, and services designed to integrate and digitalise the entire value chain. This portfolio is tailored to meet the specific needs of the Chemical Industry, enhancing productivity, flexibility and efficiency. By leveraging cutting-edge technologies and close collaboration with customers, Siemens DI helps businesses achieve greater innovation and competitiveness.

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

### **Ambipar**

The global leader in environmental solutions, operating across six continents. It offers a comprehensive range of services, including emergency response to industrial accidents, hazardous spills, natural disasters, environmental management, waste disposal, sustainable recovery, and specialised training and consultancy. Ambipar supports governments, corporations, and infrastructure networks, ensuring regulatory compliance, risk mitigation, and long-term environmental stewardship worldwide.

### **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.

### **International Fire Protection**

Specialises in providing fire safety solutions for high-hazard industries, including COMAH sites, power generation, and hydrocarbon processing facilities. Our expertise includes ATEX and SIL-rated Fire & Gas detection systems, as well as advanced fire detection and protection systems tailored to meet the specific safety needs of these critical sectors.

### **Neales Waste Management**

A family-owned enterprise with over three decades of expertise, offers specialized hazardous waste services in the North West region. As a key player in the waste management sector, we operate an extensive network of facilities, delivering comprehensive waste solutions to various clients and industries.

### **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.

### **SLR Consulting**

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.

### **Wareing Consulting**

Roger Wareing is a business sustainability/ESG consultant and former industrial chemist. Roger helps you navigate what ESG challenges mean for your company's future, shaping your response to growing regulatory obligations and rising expectations, and supporting delivery and reporting to drive value creation and resilience alongside wider positive outcomes.

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

### **Department for Business & Trade**

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.

### **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.

### **The Henry Royce Institute**

The national institute for advanced materials research. Royce was established to ensure that the UK remains at the forefront of materials research and exploitation through collaborations with industry and academia, and by providing access for the UK materials community to state-of-the-art equipment and facilities. Royce's mission is to support and grow world-recognised excellence in UK materials research, accelerating commercial exploitation and delivering positive economic and societal impact for the UK.

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

### **Charles River**

With 30+ years of experience, Charles River offers comprehensive regulatory testing, including toxicology and ecotoxicology, environmental fate and biodegradation, regulatory consultancy, and analytical support. With innovative in vitro / New Alternative Methods (NAMs) Charles River is pioneering in the reduction of animal usage in product safety, helping streamline programs for the most efficient and ethical path to registration.

### **Kemea Ltd**

Offering expert formulation services, from concept to creation. With 25+ years of formulation experience, we'll guide you through the development process, focusing on your project needs. We also offer packaging, labelling, and delivery, both in the UK and internationally. Partner with Kemea Ltd to bring your product vision to life.

### **Metrohm**

one of the world's most trusted names in high-precision instruments for chemical analysis. With a legacy of innovation and reliability, Metrohm is committed to delivering pioneering, sustainable solutions to customers across the globe. As a globally active company, Metrohm embraces its economic, social, and environmental responsibilities. We don't just innovate - we act with purpose.

### **Scymaris Ltd**

We offer high quality and cost-effective ecotoxicology, environmental fate, and chemistry services to the global agrochemical, pharmaceutical, industrial chemicals & animal health industries. Our state-of-the-art laboratory is equipped with controlled temperature rooms, freshwater and seawater testing facilities and is accredited to work according to GLP and most Global regulatory requirements.

### **Total Lab Supplies (TLS)**

Your trusted partner for laboratory equipment, chemicals, and supplies. With years of industry expertise, we offer a diverse range of high-quality products and expert support tailored to the needs of researchers, scientists, and professionals across various industries.

## **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.

### **Mathys & Squire LLP**

Mathys & Squire LLP is a full-service intellectual property law firm with industry-leading expertise in patents, trade marks, design protection and IP litigation and including a dedicated chemistry team of highly experienced attorneys holding higher degrees and research or industrial experience who are passionate about innovation in the chemical field.

### **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.

### **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

#### Chemical Processing Services Ltd

[CPS] provides innovative technology and/or niche speciality polymers with a focus on an absence or reduced CMR content and regulatory compliance, sustainability, and high process or technical performance.

#### CIRS

CIRS Group was established in 2007 and is a leading product safety and regulatory consulting firm. It utilizes its technical expertise, resources, and international network to provide comprehensive compliance services including chemical notifications and registrations, global GHS compliance, laboratory testing, R&D, and data services across multiple industries globally.

#### 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.

#### WSP in the UK

Recognising that chemical companies face a wide range of regulatory challenges, WSP's centre of excellence can assist companies with chemical compliance and safety obligations. The team's role is to facilitate a company's route to compliance in areas such chemical registration (including EU and UK-REACH), supply chain management, GHS/CLP and DGSA, amongst other safety related services.

#### 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.

#### Handley James Chemical

Handley James Chemical specialises in mid to senior level appointments within the Chemical space. With over 30 years combined search experience, we focus on providing the best talent in the chemical industry. We work closely with you, our clients to understand your business, your culture and exactly what you are looking for from a recruitment partner. Our time mapped and data driven process allows us to find the best talent available rather than whomever happens to be on the market right now, because of this we are the partner of choice for some of the largest chemical businesses in the world."

#### Page Executive

The executive recruitment division of PageGroup – provides a range of search, selection and talent management solutions. We focus on Board- and Director-level assignments, both on a permanent and interim basis, and have a strong track record of successfully partnering with the Chemicals sector.

#### 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.

#### SRG

SRG are industry leaders in Science, Engineering and Clinical Recruitment. We empower individuals and businesses to power the future of STEM. With true specialist knowledge, we support a full spectrum of technical roles and talent solutions across the whole product life cycle, from R&D, through analysis, manufacturing, and engineering to market access.

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**CONTACT US**

**Paul Wright**

[pwright@slrconsulting.com](mailto:pwright@slrconsulting.com)  
+44 (0)330 088 6631

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