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ESSENTIAL INFORMATION FOR YOUR INDUSTRY

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CIA

Contents

CIA*MATTERS*. AUTUMN 2023

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MESSAGE FROM THE CEO - 3

POLICY DIRECTOR'S OVERVIEW — 4

ENERGY — 6

CHEMICALS MANAGEMENT — 8

FEATURE – SUSTAINABLE HORIZON: A GLIMPSE INTO THE CIA SUSTAINABILITY CONFERENCE 2023 — 12

ENVIRONMENT AND CLIMATE CHANGE — 14

SUSTAINABILITY — 18

HEALTH AND WELLBEING — 20

RESPONSIBLE CARE — 24

MEMBER COMPANIES — 27

CHEMTALENT —32

COMMUNICATIONS — 34

EDUCATION AND EMPLOYMENT — 36

ECONOMIC SUMMARY — 38

EVENTS CALENDAR — 42

CIA TEAM MEMBERS — 43

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n Chemical Industries Association

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From the CEO's Desk

OR FURTHER INFORMATION CONTACT.

Steve Elliott ElliottS@cia.org.uk



Navigating a Dynamic Landscape of Policy, Innovation, and Investment in a Transformative Era

Welcome to the latest edition of our quarterly magazine, *CIAMatters*. In these pages, we strive to provide updates, in-depth analyses, and thought-provoking features that define the ever-evolving world of industry. This edition promises to be a compelling blend of innovation, industry trends, and expert perspectives, providing a window into the dynamic landscape that shapes our business environment.

As the Chancellor of the Exchequer prepares for his Autumn Statement to Parliament on 22 November — an event at which he has previously said that the UK will confirm its response to America's Inflation Reduction Act — his advisors are increasingly commenting that his intent remains, but that the 22 November may not be the right time.

With this in mind, we made a submission to the Government's review on attracting Foreign Direct Investment (the Harrington review), which you can find here. CIA called for a long-term and stable carbon market framework; more favourable policy conditions for advanced circular recycling technologies, the long-awaited delivery of post-Brexit GB REACH regulations and the implementation of a UK Chemicals Strategy – all underpinned by a more internationally competitive fiscal environment and a better-connected departmental policy framework. The review, reflecting the dominance of No 10 and the Treasury in decision-making, has not exclusively been led by the Business and Trade Department but more by the Chancellor and his team.

In terms of current affairs, since our last update, immigration, industrial action and ideology across all political parties continued to dominate the headlines, alongside a stagnant economy, the announcement of the closure of school buildings and, most recently, the Prime Minister's 're-setting' of the Government's net zero ambition and the terrible events unfolding in Israel and Palestine.

Our responsibility to you as member companies is, on the one hand, to tackle the immediate challenges that you and your businesses face especially those that threaten your licence, ability to operate and your international competitiveness – and, on the other, to identify and address those medium to longer-term priorities that influence your ability to invest and grow in the UK. Despite the many challenges we have to face, the CIA team will continue to devote its resources to these huge challenges that you, your businesses and your people grapple with, day in day out. The fight goes on.

Turning to our international presence, the CIA attended the ICCM-5 negotiations in Germany over the week of the 25-29 September. I would like to highlight the importance of this because the UK has and continues to be heavily involved in the process, with Defra jointly co-chairing the development of a new Framework text under the UN initiative Strategic Approach to International Chemicals Management. Please see page 9 for more. However, different to other years, it was great to see that for the first time young people came together to

discuss their needs and priorities for the future of chemicals governance in a one-day Youth Forum filled with panel discussions from key people across industry globally. CIA's ChemTalent Young Ambassador, Amy Summerton, attended virtually to represent the ChemTalent network. You can find out more on page 32.

Finally, our in person events are more popular than ever. In October, the CIA held its CIA Sustainability Conference in Leeds, marking a significant step in our industry's journey towards a more sustainable, low-carbon future. The event was clearly a success, so thank you for the response and support. If you could not attend, see page 12 for an event summary. It does not end there. Coming up, our CIA Annual Dinner will take place on 16 November 2023 in London at the Grosvenor House Hotel — a fantastic occasion for celebration, networking and great entertainment.

As we go through the last couple of months of 2023, let's hope that we begin the new year 2024 on a surer footing. Thank all our member companies for the work that you do for our sector and for the time and resources you commit to working with us on the collective industry-wide agenda.

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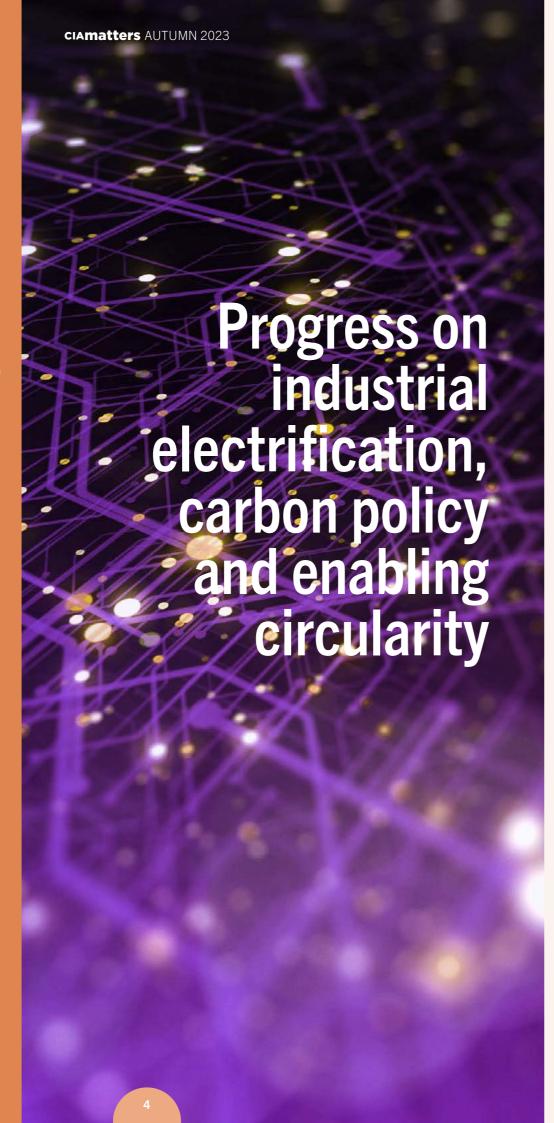
Steve ElliottChief Executive

Policy Director's overview

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Amongst the summer lull and party conference season, movement on policy can be on the quieter side. However, the last quarter has been anything but quiet. A raft of consultations, evidence submissions and parliamentary enquiries have come in thick and fast but of course, the challenge remains to keep momentum and ensure the much-needed clarity is provided for both existing operations and investment plans.

Looking back, our key focus areas relate to the products and net zero policy agenda. Starting with the latter and notwithstanding the Prime Minister's announcement to roll back on some of the UK's net zero policies, our work has continued with officials on industrial electrification, carbon policy (including carbon leakage) and enabling circularity.

On carbon policy, we have finally seen the UK ETS Authority publish its long-awaited main response outlining the future development of the UK Emissions Trading Scheme (ETS). Whilst the response provides short-term clarity with existing carbon leakage protection via free allocations remaining, policy beyond 2025 is yet to be developed. This includes free allocation beyond 2025, a decision on a potential UK CBAM and a longer-term pathway for the UK ETS (beyond 2030). With this in mind, we seek clarity from ministers on the UK's overall future intent on carbon policy and continuing to follow developments under the EU ETS and CBAM, ensuring the implications on UK industry and policy are understood by Government. Further consultations and announcements on the above aspects of the UK scheme are expected later this year.

Earlier this year, we sought feedback from members on barriers faced around electrification — thank you for all the feedback received, which we have used in our ongoing discussions with Government. This includes the DEZNZ policy team participating in our recent Energy and Climate Change Network meeting. In addition to the CIA's response to the ongoing call for evidence, we are encouraging all sites to complete and submit their own return to this second part of the call, noting that

DESNZ is interested in hearing from sites irrespective of their progress towards decarbonisation and that all input will help scope and plan future work on electrification.

Turning to circularity, several developments have taken place over the summer, including HMRC's consultation on chemicals recycling and mass balance approach related to the plastics packaging tax. Additionally, we have also responded to the Public Accounts Committee looking into the progress of Defra-led Resource and Waste strategy as well as DSIT's call for evidence on support for engineering biology (alt feedstocks for chemicals). Our headline messages include:

- (i) recognition of all recycling technologies across relevant UK policies and regulations,
- (ii) the importance of setting out a verified mass balance approach to calculate chemically recycled content for net zero and incentivising investment in all parts of circular supply chains,
- (iii) identifying the barriers to increased circulation of materials and actions to remove these; and
- (iv) incentivise the use of captured carbon in the production of new products.

On funding, we continue to acknowledge the benefits of the Industrial Energy Transformation Fund (IETF), but in looking to the future, we are calling for an immediate extension and the need for a significant and long-term support package that will give industry the confidence to invest in the UK, highlighting the growing international competition for net zero industrial investment, made visible through the US' Inflation Reduction Act, the EU's Net Zero Industry Act as well as individual EU Member State packages.

Whether in the UK, EU or the US, the ongoing development surrounding PFAS already has far and wide implications for the sector and policy setting (managing persistent chemicals and the concept of grouping and essential use as part of a regulatory toolbox to manage chemicals). Whilst the EU PFAS restriction consultation has ended, we

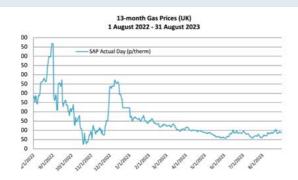
have also sought member views on some policy options that have been put forward via Defra's Chemicals Stakeholder Forum PFAS Working Group (CIA is on this). We understand that Defra Ministers have accepted the recommendations made in the UKRMOA and are now moving forward. We also expect further PFAS-related actions to feature in the forthcoming UK Chemicals Strategy later this year. To this end, we have published a short 'PFAS policy guide covering the state of play here in the UK and the EU and making some recommendations.

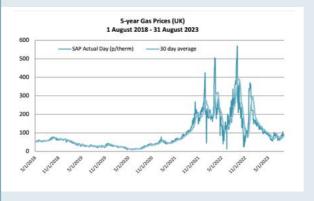
Finally, on REACH, the UK registration deadlines have been extended by three years to allow for a redesign of the registration process for transitional registrations, but the clock is already ticking fast and, more than 18 months on from the commitment to consider an alternative model, it is still unclear how the model will work in practice. The proposed approach has been tested with 30+ companies from different sectors. Our understanding is that DEFRA officials are currently reflecting on their findings and considering refining their approach to overcome the challenges identified by the industry. Whilst we knew from the outset that no easy solution and trade-offs will need to be made, the current uncertainty around the future registration requirements and related costs for manufacturing or importing chemicals into Great Britain is not encouraging investment towards the UK market. Clarity on the proposed alternative registration model is therefore needed urgently. Alongside this, a review of the UK REACH Fees regulation is underway to better reflect actual costs incurred by the UK Agency in processing industry's submissions and meet public money guidance. While waiting to get a clearer picture to what extent fees may change, we understand that registration fees may be reduced from April 2025, while a new annual fee is being contemplated to cover the maintenance and improvement of the REACH IT system. Whilst waiting for Defra to share further details, CIA has submitted intel views to inform costing decisions.

13-month Gas Prices (UK):

1 August 2022– 31 August 2023 SAP Actual Day: 24p/therm-568p/therm

Average SAP Actual Day: 154p/therm





Energy

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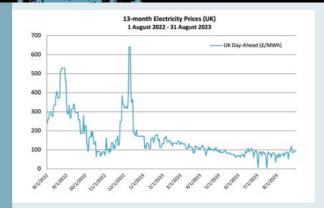


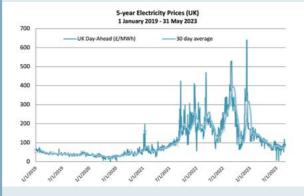
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13-month Electricity Prices

1 August 2022– 31 August 2023 Day Ahead: £6-£640 MWh

Average Day Ahead: £158 MWh





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Natural gas outlook

At the start of the summer, European gas prices were on a downward trend but remained volatile. In early June, the European TTF benchmark had fallen to a two-year low of €23/MWh but shot up 27% day-on-day, in mid-June, following forecasts of hotter weather, news of supply outage extensions at key fields in Norway, and reports that the Netherlands' large Groningen gas field will close this year.

UK gas prices never returned to the lows seen at the beginning of June, for the rest of the summer, and volatility persisted. Yet the price was at least comparatively lower than for the corresponding period last year. In mid-August, another price surge was prompted by growing concerns about potential disruptions in liquefied natural gas (LNG) supply from Australia. European gas prices witnessed a day-on-day leap of close to 40% in response to fears of strike action at three LNG plants in Western Australia, representing 10% of global supply. Prices subsided as strikes were called off.

European gas markets are still adjusting to a new reality, in which imports of LNG are critical for replacing supplies previously sent from Russia by pipeline. Many commentators think that we will see the competition for LNG ramp up this year, and into the future, as increased demand for LNG strengthens the link between the European and Asian gas markets. And already we are seeing European and Chinese energy groups racing to lock in future shipments of LNG from the US, driving investment in US export projects that will come online in the next 2-3

years. In contradiction, over the summer, Asian LNG demand fell as power generators there responded to LNG price rises by fuel switching to coal. But this trend cannot be depended upon this winter, as heat demand is not so readily substituted.

The EU has already surpassed its 90% gas storage target ahead of winter, well ahead of the scheduled deadline of 1st November. However, much will depend on winter weather in both regions and the International Energy Agency has warned that Europe could face a very difficult winter if Russia cuts its remaining gas supplies and the region experiences cold weather — even if Europe's gas storage sites are 100% filled before October.

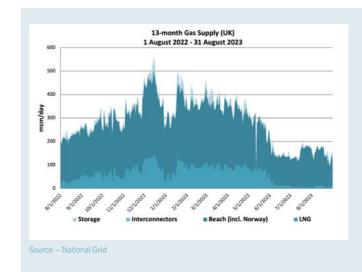
Electricity outlook

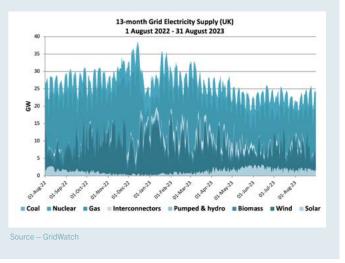
Fatih Birol, the head of the International Energy Agency, has said energy prices may spike again this winter, forcing government to subsidise bills — just days after state support for UK households fell away. Mr Birol said a rapid improvement in the Chinese economy, coupled with a harsh winter, could put pressure on gas supplies and push up bills for consumers. As with last winter, given the importance of gas-fired generation to the UK grid, such a scenario could impact both gas and electricity bills. However, the Energy Bills Discount Scheme and complimentary Energy and Trade Intensive Industries discount will remain in place for business, until March 2024.

It was with concern then, that commentators processed the announcement that EDF and Drax would not make their

coal-fired units available this winter. For their part, Drax said that "technical, maintenance and staffing reasons" meant its two coal units near Selby, North Yorkshire, could not continue to operate, having started to be decommissioned in April. Some analysts have warned that the UK might be on the verge of another winter energy crisis, having just one remaining coal power plant. Uniper's Ratcliffe-on-Soar plant in Nottinghamshire will continue to operate but only on a commercial basis, ruling out its availability as a contingency option. And once this winter is over, that plant is due to close marking a historic end to coal's contribution to UK power generation.

So how will the UK balance an increasingly intermittent renewables portfolio with the loss of coal and with gas markets tight? The Scottish Government, this summer, gave the green light to Drax's plans to construct a pumped storage hydro plant at its Cruachan facility, the first long-duration storage plant to be constructed in the UK in 40 years. Planning permission was also granted for the world's largest battery energy storage scheme in Manchester, with Carlton Power aiming to have the 1GW project entering commercial operation in 2025. And government and network companies hope demand-side response could shave up to 15GW from peak demand, potentially saving as much as £50bn in network costs by 2050, according to government figures. Britain's local flexibility markets achieved a record 4.6GW capacity tendered last year, with 2GW successfully contracted. 30% of this was attributable to energy storage but flexibility was also contracted in the form of demand reduction.





PRODUCTS AND CONSUMER HEALTH

CHEMICALS MANAGEMENT — UK

Changing the fire safety of furniture and furnishings regulations

At the time of writing, the Office for Product Safety and Standards (OPSS) is consulting on a new approach to regulating the fire safety of domestic upholstered furniture in the UK. Once adopted this new approach will replace the existing 'Furniture and Furnishings (Fire) (Safety) Regulations 1988' enabling, according to the consultation, "better innovation and flexibility as well as reducing the use of chemical flame retardants as the primary means by which manufacturers meet fire safety requirements". Amongst the aspects proposed, one proposal, if adopted, would place a duty on manufacturers to comply with a new 'Flame Retardant Technology Hierarchy' where:

· "Before using chemical flame retardants, manufacturers must first consider making the product fire safe by: (a) using inherently flame-retardant materials, and



(b) adapting the design of the product. Manufacturers will be required to provide evidence in the technical file that they have followed this process in the form of supporting information, for example costings, product designs and evidence of the application of a process map."

Further information is available on the gov.uk website. The consultation is open until 24 October.

New Rules for Explosive Precursors and Poisons

On 1 October the UK's Control of Explosives Precursors and Poisons Regulations 2023 comes into force. The Government has updated its guidance to reflect the new duties for suppliers to verify legitimacy of professional user / business customer. According to the guidance the person making the sale will need to obtaining from the business customer their name and address, form of photographic identification, statement on nature of business customer's trade and a VAT registration number if they have one. New substances have also added to the lists of regulated explosives precursors and poisons.





Chemicals

Management



OPSS Assesses safety of nanomaterials in cosmetics

The Office for Product Safety and Standards (OPSS) is inviting interested parties to submit scientific information relevant to the safety assessment of the following nanomaterials (or surface functionalised variants, alloys, or other related variants) used in cosmetic products. The substances are:

- Platinum (nano)
- Copper (nano)
- Silver (nano), colloidal silver (nano)

- Gold (nano), colloidal gold (nano), gold thioethylamino hyaluronic acid (nano)
- Silica (nano), hydrated silica (nano), silica silylate (nano), silica dimethyl silylate
- Lithium magnesium sodium silicate (nano)
- Hydroxyapatite (nano)

Deadlines are 27 June 2025 for Silica (nano), hydrated silica (nano), silica silylate (nano), silica dimethyl silylate (nano), and 22 December 2023 for all other substances. Further information is available on the gov.uk website.

Could the EU's Toys Directive become a Regulation?

At the end of July, the European Commission published its proposal for revising the EU Toy Safety Directive by turning it into a Regulation. The proposal looks to increase protection of children from harmful chemicals as well as strengthen its enforcement in Member States. According to the European Commission's website, the prohibition of using substances that are carcinogenic, mutagenic or toxic for reproduction (CMRs) is maintained and further prohibitions are proposed. The Commission proposes to also include prohibiting endocrine disrupting chemicals, as well as chemicals that affect the respiratory system or are toxic to a specific organ. In terms of enforcement, the proposal would require all toys to have a digital product passport that would contain information on compliance. A new IT system would be introduced under the proposal that would screen digital product passports at



customs borders and the Regulation would give the Commission power to remove toys considered to be dangerous off the market. Further information can be found on the Commission's website.

EU Adds new chemicals to PIC Regulation

From 1 November 2023 EU exporters will be required to notify their intentions to export 35 additional chemicals under the EU's Prior Informed Consent (PIC) Regulation. These have been added to Annex I of the Regulation taking the total number of chemicals listed to 295; listing requires export notification and explicit consent from the importing country. The amendment to the PIC Regulation was published in the EU Official Journal on 16 June 2023.

European Commission consults on export ban of hazardous chemicals

In the EU the European Commission is considering prohibiting production and/ or export of certain hazardous chemicals that are banned in the EU. According to the Commission's website, this would be "to protect non-EU countries from their negative effects on human health and the environment" thereby meeting the commitment made in the EU Chemicals Strategy for Sustainability. A consultation took place over May to July and the Commission's feedback has yet to be published. The Commission intends to adopt a proposal by the end of Q4 2023. Further information is available on the Commission's website.

Fifth International Conference on Chemicals Management (ICCM-5)

On 25-29 September delegations from UN signatory countries and stakeholder groups met in Bonn to discuss global chemicals management at the Fifth International Conference on Chemicals Management (ICCM-5). At the Conference, Ministers from UN signatory countries, including the UK agreed to commitments and targets under the UN's Strategic Approach to International Chemicals Management (SAICM) programme. SAICM is a voluntary international mechanism for improving international chemicals management. Information on the conference can be found on the UN SAICM website.





Global Plastics Treaty

A 'zero-draft' text was published in early September for discussion at the third UN International Negotiating Committee (INC-3) scheduled for 13-19 November 2023. This follows the second International Negotiating Committee held earlier in the year at the end of May to beginning June. The UK lead government department Defra is expected to seek stakeholder views through a UK Stakeholder Dialogue meeting organised and run by the Ocean Plastics Leadership Network on behalf of Defra to help inform UK negotiators attending INC-3. Further information on the Treaty's development can be found on the United Nations Environment



REACH



EU restriction proposal for bisphenols withdrawn

The proposal to restrict bisphenols with endocrine disrupting properties has been withdrawn by the German authorities, following the six-month consultation period running from December 2022 to June 2023.

The authorities have advised that this is a temporary withdrawal of the restriction proposal, to allow themselves to consider the substantial amount of new and significant data received during the consultation period. They have highlighted their intent to resubmit an updated proposal to ECHA once all additional comments have been considered, and the scope of the restriction has been reworked.

Further information can be found on the German authorities' website for REACH, CLP and biocides here.

Recording and presentations now available from ECHA's NAMs workshop

On 31 May – 1 June, ECHA hosted a workshop on NAMs (New Approach Methodologies) to discuss potential options to reduce and replace animal testing in the hazard assessment of industrial chemicals whilst maintaining human health and environmental protections.

The event was attended by over 500 participants, with a focus on building a common understanding of what NAMs are able to achieve in both the short and long term, and how to bolster widespread regulatory acceptance of NAMs. Participants also recognised the challenges that still remain with regards to NAMs implementation, and the steps that regulators needed to take to enable faster progress in the area. ECHA confirmed that they would continue to play an active role in the promotion of alternatives to animal testing, both at EU and international level.

CLASSIFICATION, LABELLING,

GB Classification, Labelling and Packaging (GB CLP)

Developments in GB MCL (Mandatory Classification and Labelling) are listed below:

- GB MCL Technical Reports: 29 reports issued to date in 2023. One divergence from the RAC opinion, for benzoyl peroxide
 HSE assigned an M-factor of 1 to the aquatic chronic classification, versus the RAC opinion of chronic M-factor of 10.
- GB MCL Agency Opinions: 39 opinions issued to date in 2023.
- The AO for three lithium substances (lithium carbonate, lithium chloride and lithium hydroxide) disagreed with the TR and stated that the proposal required further consideration under Article 37A of GB CLP. No MCL is proposed at this time.
- Remaining AOs show no disagreement with conclusions of respective
 Technical Reports, and only one of these initial TRs disagreed with the respective RAC opinion.

At the time of writing, we are still waiting for the first update to the GB MCL list from the UK's April notification to the WTO TBT (Technical Barriers to Trade) Committee as reported in CIA Matters' Summer 2023 edition. Based on timelines in the GB CLP legislative text and the indicated adoption date in the WTO notification, we would expect this to occur no later than the end of 2023.

There has also been a second notification to WTO TBT for the next round of updates — covering Agency Opinions issued between November 2022 and February 2023 — which is currently going through the 60-day commenting period, ending on 23 October.

IOCIDES

HSE has issued an update to the GB guidance document on biocides, titled *Bridging the* endocrine disruptor assessment of biocidal non-active substances with UK and EU REACH screening and assessment.

GB BPR had previously retained a requirement to conduct a literature review for non-target organisms to assess the potential for endocrine disruption impacts in the environment. Whilst this literature review is considered added value, HSE has determined that the database checks outlined in the bridging document are sufficient to capture all relevant information on the potential ED properties of co-formulants, and will adequately address the potential risks to nontarget organisms.

The guidance has been updated to reflect this stance; in addition, the update will also correct broken links to external resources.



Convenient clamp-on flow measurement of liquid hydrocarbons and water

Non-invasive, portable and explosion-proof clamp-on ultrasonic flowmeters are proving to be an essential tool for ensuring the safe and efficient operation of chemical production plants. These plants form a complex system of material and energy flows, with everything from raw materials to end products flowing through a network of pipelines and pumps. This means that flow measurements are crucial for ensuring that everything runs as smoothly as possible.

Traditional wetted measuring systems are subject to constant wear and tear, which can lead to a loss of accuracy or even complete failure. There are also often areas where flow rates need to be measured but no permanent measuring device is installed. This is where clamp-on ultrasonic flowmeters offer an accurate and reliable alternative.

Using the proven transit-time correlation technique, special Lamb and shear wave transducers are simply clamped to the outside of the pipe. For measurement, two ultrasonic pulses are sent through the medium – one in the direction of flow and a second one against it. Each transducer is alternately working as an emitter and a receiver, and the transit-time of the ultrasonic signal propagating with the flow direction is shorter than the transit-time of the signal propagating against the flow direction. A transit-time difference can therefore be measured, allowing the determination of the average flow velocity based on the propagation path of the ultrasonic signals.

There is no need to cut the pipe, and no need for plant process interruption to carry out installation, which is of particular benefit to facilities where pipes can't easily be depressurised.

Non-invasive flow measurement in potentially explosive zones

Due to explosion protection reasons, hydrocarbons must not exceed a certain flow rate when transported through pipelines, in order to prevent potentially dangerous electrostatic charges. For the same reason, the possibility of pumps running dry has to be prevented. These pumps are therefore fitted with limit switches that cut off the





pumping process if the defined limit values are exceeded or not reached. Ideally, this safety function is set up with the help of a flow measurement.

This is exactly why system engineers at a leading international provider of solutions for high-quality hydrocarbon products were looking for a portable clamp-on ultrasonic system for non-invasive flow measurement. They also needed a flowmeter approved for use in potentially explosive areas.

FLEXIM's portable energy flowmeter specially designed for measurement in hazardous areas was chosen for the task, along with a pair of CDM clamp-on ultrasonic transducers that cover practically all liquid applications with a pipe diameter range of 50 mm to 3400 mm. The transmitter can also measure gases and liquid-based thermal energy flows, and the company has the option of retrofitting it with gas transducers if required.



Rapid set-up of high-precision flow

The portable flowmeter is now working at full capacity to check and readjust the protective functions on the pumps. It is in use almost every day, and is also used to check existing measuring devices. The users greatly appreciate the practical functionality of the measuring system, which allows for high-precision flow measurement to be set up quickly. The system allows the user to parameterise pipe and media data, mount transducers accordingly and deliver reliable measuring results in less than five minutes. Due to this positive experience, the site is now planning to fit stationary flow measuring points with clamp-on ultrasonic technology from FLEXIM

For more detailed information on the benefits of non-invasive ultrasonic flow measurement in the measurement of steam, contact Simon Millington – www.flexim.co.uk | sales@flexim.co.uk +44 (0)1606 781 420

CIA SUSTAINABILITY **2023 CONFERENCE**

Sustainable Horizon: A glimpse into the CIA Sustainability Conference 2023



L-R Speaking Jonathan Vincent (INEOS), Sameen Barabhuiya and Thet Su Aye Chan



Charles Henderson, ERM

The CIA's Annual Sustainability Conference 2023 marked a significant step in our industry's journey towards a more sustainable, low-carbon future. The conference provided a unique opportunity for attendees to gain insights into what leading companies are already doing to steer the chemical industry towards a sustainable future. The event featured industry case studies, expert discussions, and policy updates from government, shedding light on the broad spectrum of challenges and opportunities facing the sector.

The day commenced with an array of insightful presentations delving into the path to achieving net zero. Notable topics included:

Electric Thermal Energy Batteries: Emerging as a key technology in the heat transition, these batteries are poised to revolutionise the way we approach energy efficiency and sustainability. Digital Twins and Sustainability: The role of digital twins and using simulation to drive time, cost, but also resource efficiency and the circular economy. Highlighting the need to take a more holistic approach rather than taking decisions in silo.

EconoMISER Project: An ambitious initiative addressing sustainability and net zero challenges within the foundation industries, offering innovative solutions for a more sustainable future. Collaboration for Sustainability: The Flue2Chem project exemplified the power of collaboration joining the supply chain to look at the full business and environmental impacts of the entire value chain to build (Carbon Capture and Utilisation) CCU in the UK and embed sustainability

The conference also featured a policy update from the Department for Energy, Security and Net Zero (DESNZ), offering valuable insights into the enablers for industrial decarbonisation and the role of the government in supporting industry efforts. Key documents expected by the end of the year, including a UK (Carbon Capture, Usage and Storage (CCUS) vision and a UK Carbon Border Adjustment Mechanism (CBAM) update, were highlighted.

During discussions about the upcoming COP28, the conference shed light on the influence of current economic and geopolitical conditions on decarbonisation efforts. Key themes for COP28 discussions were explored, including ensuring a just transition for all, accelerating renewable technologies, and reducing fossil dependency alongside emission reductions.

The conference also turned to the vital topic of nature, with a focus on the Task Force on Nature-Related Financial Disclosures (TNFD). The event underscored the growing awareness of business dependencies on nature and the critical need for accessible information in this

In the post-lunch sessions, the importance of Social Life Cycle Assessments (LCAs) was highlighted, emphasizing the complexity associated with measuring intangible variables. These discussions provided a deeper understanding of the broader impact of sustainability efforts.



James Birbeck, Croda



Susana Carvalho, Synthomer



L-R Nishma Patel, Alistair Sanderson (Unilever), Edmund Ward (DESNZ), Lorrain Ferris (Manchester University), John Mackey (Siemens) and Mark Meldrum (Systemig)

One of the conference's standout moments was a thought-provoking ChemTalent panel discussion on the future of the chemical sector, highlighting the significance of empowering the next generation of industry leaders. ChemTalent speakers Thet Su Aye Chan, Sameen Barabhuiya and Jonathan Vincent emphasised the underlying importance of nurturing the voices and ideas of the next generation as well as the necessity of supporting women throughout their careers in the industry and fostering an environment that encourages and retains young talent, crucial to the sustainability journey.

Towards the end of the day, two enlightening case studies were shared by Susana Carvalho from Synthomer, which emphasised the significance of valuable KPIs in monitoring a company's sustainability program. The second case study, presented by James Birbeck from Croda, delved into Coda's batch to continuous journey which challenged long-standing assumptions to optimise processes and reduce their carbon emissions.

A poster session was also held, mainly with contributions from local Leeds and York Universities demonstrating postgraduate research topics that contribute to the sustainability of both the chemical industry and downstream uses such as textile and agrochemical sectors. Some of the subjects covered were:

- · Replacing traditional plastics with bio-based polymers for applications in textiles and
- Using naturally biobased cellulose in combination with cotton to prepare composites with superior mechanical properties to those based on cellulose alone;
- Making research labs greener through optimisation of things like energy use and cleaning
- Optimisation of production processes for nanomaterials like titanium dioxide and copper
- Improved methods for removing pollutants from drinking water; and
- RNA based biopesticides as safer more targeted pesticides than those currently available. As we reflect on the conference's achievements, it is clear that it was more than just a gathering of professionals; it was a meeting of minds dedicated to a common goal — a more sustainable, low-carbon chemical industry.

The CIA Sustainability Conference 2023 has set the stage for industry-wide collaboration and innovation, signalling a promising future where sustainability takes centre stage in the chemical sector

FNVIRONMENT

Developing the UK Emissions Trading Scheme

At the start of July, the UK ETS Authority published its long-awaited 'main response' to last year's consultation on the development of the UK Emissions Trading Scheme (ETS). It was titled the 'main response' because the Authority had published an initial response, covering proposals to be implemented by 2023, last August.

The main response sets a total cap of 936 million emission allowances for Phase I (2021-2030) – the top of the range of options presented in the consultation – which still equates to 30% fewer allowances being made available over the course of the phase. The new cap is considered to be the world's first net zero aligned cap and will be implemented from 2024.

The other key amendment to the scheme also set to come about in 2024, is that the industry



cap — the proportion of the total cap that is made available for free allocation — will be increased from 37% to 40%. Because of the reduction in the total cap, this represents a larger portion of a smaller pie. However, it will not have an immediate impact as, in practice, free allocation is calculated from the bottom-up in accordance with the free allocation methodology we inherited from the EU. Furthermore, whilst the new industry cap will apply from 2024, the Government has committed to protecting levels of free allocation up until 2026 so sites should see no impact to their free allocation until then.

The new industry cap becomes important from 2026 onwards. The higher industry cap will provide the Government with greater flexibility when considering changes to the free allocation methodology that will apply in the second allocation period (2026-2030). A consultation on this aspect of the scheme is due later this year. CIA will engage with that consultation when it emerges and work with our Energy and Climate Change Policy Network to respond.

Environment and climate change

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Future of the Industrial Energy Transformation Fund

In late June, the Department for Energy Security and Net Zero published a consultation on the future role of the Industrial Energy Transformation Fund (IETF) and the final design of Phase 3. The IETF was launched in 2020, to help industry to improve energy efficiency and reduce carbon emissions. It has run for two phases to date, with the final window of Phase 2 closing at the beginning of 2023. In the Spring Budget, the Chancellor announced a £185mn extension to the fund, to be made available from 2024.

In collaboration with our Energy and Climate Change Policy Network CIA submitted a response to the consultation, supporting the need for this immediate extension but also outlining the need for a significant and long-term support package that will give industry the confidence to invest in the UK.

We referenced the Government's own Industrial Decarbonisation & Energy Efficiency Roadmap to 2050 for the chemical sector, which outlines the barriers to investment in our sector that unfortunately have not diminished much since its publication in 2015. We also highlighted the growing international competition for net zero industrial investment, made visible through green industry support packages, like the US' Inflation Reduction Act, the EU's Net Zero Industry Act and Temporary Crisis and Transition Framework, Germany's Carbon Contracts for Difference scheme, and the Netherlands' SDE++.

We now await the Government's response to the consultation, as well as a widely-expected announcement from the Chancellor on industrial decarbonisation in his Autumn Statement.

Enabling industrial electrification



In the Climate Change Committee (CCC)'s June Progress Report to Parliament, they recommend that Government develop policies for industrial electrification that address general barriers such as investment constraints, as well as specific barriers for different industrial sub-sectors. Specifically, they urge the Government to introduce funding for research and development in industrial electrification, and to provide greater levels of funding for industrial electrification — covering both capital and operational costs — consistent with the support available for hydrogen and carbon capture and storage (CCS).

This advice from the CCC builds on previous recommendations and the Government has been listening. In July, the Department for Energy Security and Net Zero (DESNZ) launched a call for evidence on

industrial electrification. The consultation will run until 20 October and is split into two parts, the first is seeking information on general barriers and enablers, whilst the second is asking for site-specific information.

CIA is working with its Energy and Climate Change Network to inform our response to the first part of the call. To this end, the DESNZ policy team behind the consultation joined our network meeting on 20 September to present their thoughts and to take questions and feedback direct from members. We would encourage all sites to complete and submit their own return to the second part of the call, noting that DESNZ are interested in hearing from sites irrespective of their progress towards decarbonisation, and that all input will help scope and plan future work on electrification.

UK GOVERNMENT

UK Environment Bill and 25 Year Environment Plan

The UK Environment Act 2021 gained Royal Assent and was passed on 10 November 2021. Environmental aspects covered are waste and resource efficiency, air quality, water, nature, biodiversity, conservation, and chemicals.

In support of the 2021 Act, DEFRA consulted on a National Air Pollution Control Programme, which closed in September. The consultation looks to set UK emission reduction commitments for five air pollutants: fine particulate matter (PM2.5), sulphur oxides (SO_X), nitrogen oxides (NO_X), ammonia (NH $_3$) and non-methane volatile organic compounds ('NMVOCs') for 2030. One of the main parts of the consultation focused on fine particulate matter (PM2.5) where a maximum concentration of 10 μ g/m³ is planned across the whole of England along with a 35% reduction in population exposure by 2040.



CIA provided input to DEFRA stating that particulate emissions to air from the chemical industry are generally tightly regulated already and that any potential impact needs to take a holistic approach with consideration for overall environmental impact. The chemical Industry is not a big contributor of PM2.5. UK BAT is also likely to reinforce compliance with dust emissions and close any gaps. The main areas for improvement

includes combustion (especially domestic) and transport as they are by far the main sources of concern for particulates, especially in major cities. The Committee on the Medical Effects of Air Pollutants (COMEAP) provided DEFRA with the health benefits that can be achieved by reducing levels of PM2.5 fine particulates in air, which helped to set these future UK targets (comeap advice).

UK BAT (Best Available Techniques)

DEFRA published the **Government response** to April 2021's consultation on a future process for UK Best Available Techniques (BAT) on the 30th August.

The timetable for UK Tranche 1 BREF/BAT conclusion Technical Work Group (TWG) Meetings was communicated in late September for UK BAT. Tranche 1 includes:

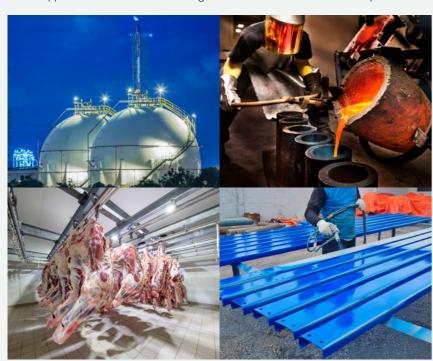
- Ferrous Metals Processing (FMP)
- Galvanising
- Forming
- Textiles (TXT)
- Waste gas treatment in the chemical sector (WGC)

The first Waste Gas Treatment TWG meeting (which is key for the chemical sector) kicks off on 2nd February 2023. A formal 2-3 day TWG meeting will then follow and is currently planned for 18-20th April 2023.

Delivery times for Tranche 2 will be confirmed later. Tranche 2 will include:

- Ceramics industry (CER)
- Surface treatment of metals and plastics (STM)
- Large volume inorganic chemicals (LVIC)
- Slaughterhouses and Animal By-products industries (SA)
- Smitheries and Foundries (SF)

The appointment of the UK BAT manager and BAT authors have also taken place.



DEFRA has set up its Advisory Panel to oversee the current and future UK BAT process. Members of the Advisory Group will include Industry and trade associations (including CIA), Non-Governmental Organisations (NGOs), Academia and national research projects, Specialist equipment manufacturers and new technology designers, and Local authority representatives. The first Advisory Panel meeting will be held on November 14th. The UK BAT team has also employed a consultant to develop a share point platform (similar to BATIS used for EU BREF's) where all information will be stored and accessible.

Draft BAT conclusions will be issued for public consultation when available (~summer 2023). Working with our Industrial Emissions Policy Issue Team, regulators and DEFRA, CIA has frontloaded the process via a 'General Position Statement' on UK BAT and commented on each of the EU WGC BREF BAT conclusions. DEFRA has suggested that it would like CIA to help coordinate site visits as part of UK BAT development. The potential timeline for the WGC Bat conclusions to be published is predicted to be towards the end of 2023 (as it involves a statutory 3-month public consultation) at the earliest. Compliance to the finalised UK BAT conclusion will be within 4 years after its publication date (i.e. by late 2027).

EU IED and BREF developments

The pre-final draft of the EU Chemical Sector Waste Gas BREF (WGC) was taken to the final stage review, the Article 75 Forum committee, on 12th September. The "official" vote will be cast via written procedure. No real change is expected, and the final result will be shared on the CIRCABC website, a folder dedicated to the Art.75 committee. In summary, it is expected that the BREF will now proceed for publication in the EU Journal early in 2023, triggering 4 years for those impacted to comply.

The EU LVIC BREF Kick-Off Meeting was held in late October. The KoM focused on data collection for the upcoming first questionnaire template (due for issue end of February 2023) and added more specific details and broader items to include for each chapter/ process. Aside from the usual air/water/ water/energy emission data they have added some other items for data collection e.g. odour, raw material consumption and several environmental performance parameters. The TWG will collate and decide later generally if they want to set BAT-AEL's for certain data sets/parameters. There is likely to be a new chapter for hydrogen production in the BREF but the TWG is to decide at a later stage. based on the information and data collected, which hydrogen production processes will be reflected in the BAT conclusions.

In June the EU published a further update on the plans for a Revision of the Industrial Emissions Directive. Plans are that Competent authorities would be required to set emission limit values in permits at the most stringent (i.e. lowest) end of the relevant BAT-AEL range. Rules on derogations from BAT-AELs would be strengthened. The Commission would establish and operate an innovation centre for industrial transformation and emissions (INCITE). The centre would collect and analyse information on innovative techniques, including emerging techniques and its findings would support decisions to revise the BAT conclusions. Operators would have up to six years to implement emerging techniques. Operators would be required to produce installation-specific transformation plans by 30 June 2030. Plans would detail how the installation would transform itself during the 2030-2050 period in order to contribute to the emergence of a sustainable, clean, circular and climate-neutral economy by 2050. A standardised permit summary should be made available to the public and the public given more opportunity to participate in granting or updating

permit conditions. Provisions on sanctions would be strengthened and new rules on compensation introduced. Negotiations are expected to continue until the end of 2023. CEFIC is actively engaged and, amongst other comments, demanded more clarity on proposals to comply with the lower limit of emissions and requested flexibility.

Cefic produced a 10-point action plan in September which it hopes will influence and support Industry during the revision of the EU's revision of the Industrial Emissions Directive (IED). The 10-point plan can be seen here: 10-point action plan. Cefic is also developing a website on IED containing videos to explain the technical issues to a non-expert, available here.

Resources and Waste Strategy

In DEFRA's 2018 Resource and Waste Strategy Resources and waste strategy for England — GOV.UK (www.gov.uk) the government pledged to leave the environment in a better condition for the next generation. They want to prolong the lives of the materials and goods that we use and move society away from the inefficient 'linear' economic model of 'take, make, use, throw'. They want to move to a more circular economy which will see us keeping resources in use as long as possible, so we extract maximum value from them.

Part of this strategy included 'more sustainable production'. This summer DEFRA issued guidance on requirements for compliance to the new packaging Extended-Producer Responsibility (EPR) scheme. EPR is a policy tool which requires producers to be responsible for the packaging they place on the UK market at the end of its life. It is in line



with the 'polluter pays' principle which states those who produce pollution should bear the costs of managing it to prevent damage to human health or the environment. Under EPR proposals packaging producers will be made responsible for the full net cost of managing the packaging they place on the market. This will affect large and small organisations. Further packaging data collection is required from 1 January 2023. The regulator will then use 2023 data to calculate the amount

of PRNs and PERNs businesses must buy to cover recycling obligations for the 2024 calendar year. From 2025, the scheme administrator will adjust waste management fees depending on the cost of recycling the materials used in the packaging businesses handle and supply.

EPR follows Plastic Packaging Tax (PPT) which came into force from 1 April 2022 and requires manufactures or importers of plastic packaging into the UK to report and pay PPT quarterly.

UK Regulator Updates

Environment Agency (EA)

The EA's National Permitting Service (NPS) provided an update on their Permitting System Improvement Programme (PSIP) in October. They are focussed on improvements which build new capabilities and strengthen their existing permitting system and services. It lays the foundations for longer term change across a broad range of work, with stepchange improvements. As part of this the EA has been actively recruiting significant numbers of staff to help reduce permit application determination times. CIA has actively sought feedback regarding permitting delays from members for review with the EA.

The Environment Agency regulatory services programme has recruited 'digital resources' aimed at digital transformation in the EA. Their mission is to speed up average process times for permissions, compliance & enforcement, Improve & speed up the customer experience and to reduce 'time to market' & cost of delivery for future legislative needs.

Natural Resources Wales (NRW) issued a 12-week SROC (Strategic Review of Charges) consultation on October 10th with a planned implementation in April 2023. SROC is a major review of permitting fees for Wales (first time since 2013) in order to facilitate cost recovery for NRW (currently £3million/year deficit). Most costs are expected to increase (especially in the water sector) but some will reduce. As a result, permit applications and variation fees in Wales are expected to Increase significantly overall. The OPRA system is planned to be retired and replaced by a charging system that will be based on 4 bands (with the highest band and cost being for the more complex and hazardous processes). There will be some fixed charges to reflect resource effort (time and material fee) plus also fees for any specialist work needed (e.g. noise or air emission modelling).

There is also a focus to try to Improve the quality of applications for efficiency purposes and linked to this will be additional fees for poorer quality applications. Annual subsistence fees will be reviewed later. CIA has drafted a response to the consultation for member comment and input. The consultation closes on January 7th, 2023.

UK regulators are reviewing Waste
Classification Technical Guidance WM3. The
Project is funded and coordinated by NRW
on behalf of the EA, SEPA and NIEA (and
working with SLR consultants) to try to make
waste coding and classification easier in the
UK. Surveys have been carried out (July -Oct
2022) followed by a questionnaire to capture
extra feedback. They included a broad range
of waste producers and waste processors who
use WM3 and gathered feedback on issues
and ideas for Improvement. CIA provided
input via a virtual survey/interview.

Medium Combustion Plants (MCP) Directive:

The **Environment Agency** continue to work on medium combustion plant permits. The latest timetable for MCP in England is as follows: **July 2022-Sept 2022** – agree and confirm process of application and timing of annex 1 data collection and permit delivery (phasing), communicate/consult on this plan with customers – to increase awareness of the requirements

July 2023-Dec 2023 – request Annex 1 (of MCPD) information via a schedule 61 notice for any remaining relevant installations and advise that we will review and, if necessary, vary (EA led) the permit at some point during 2024.

Natural Resources Wales (NRW) has communicated the following timetable for Wales.

Sept 2022-Nov 2022 - collect data on

expected number of MCP units. Identify early review/variation opportunities to incorporate MCP Phase II and potentially Phase III requirements (if operators request this).

Sept 2022 – agree and confirm process of application and timing of annex 1 data collection and permit delivery (phasing).

Sept 2022-March 2023 – communicate this plan with customers through the survey and webpage updates and increase

July 2023-Dec 2023 – request Annex 1 (of MCPD) information via a schedule 61 notice for any remaining relevant installations and advise that we will review and if necessary vary (NRW led) the permit at some point during 2024.

awareness of the requirements.



Sustainability

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Sustainability update

The Sustainability Strategy Group (SSG) met toward the end of June with the central theme being chemical recycling and circularity. The key takeaway from the meeting was that chemical recycling is a complementary, not competitive, technology to mechanical recycling. Chemical recycling supports mechanical recycling, making up for the latter's shortcomings by tackling hard-to-recycle materials like mixed plastic waste streams, multi-layered products, and contaminate plastics—such as films from food containers. As such, advanced recycling contributes to the growth of a UK plastics circular economy, helping to reduce greenhouse gas emissions. Nonetheless, chemical recycling requires both greater support from Government and the adoption of a mass balance approach to provide confidence in recycled content levels and drive inward investment. The UK Government published a consultation on allowing a mass balance approach for calculating the proportion of recycled content in chemically recycled plastics, for the purpose of the Plastic Packaging Tax (PPT). The PPT enforces a tax on plastic packaging that does not contain at least 30% recycled content as a way to incentivise advanced recycling and encourage the growth of the UK circular economy. To provide members with an opportunity to obtain clarity on the consultation's asks, CIA set up a call between the SSG and HMRC (the consultation lead). Within this call Sabic delivered a presentation illustrating their activities within chemical recycling and mass balance, and HMRC openly discussed aspects of the consultation with members. A key ask from HMRC was for members to provide concrete evidence to substantiate consultation answers. Despite it being a very complex topic, CIA have produced a first draft response which has been shared with SSG for feedback. Our stance is supportive of the adoption of the mass balance approach, using the fuel exempt allocation method, for calculating the recycled content in chemically recycled plastic, for the purpose of the PPT. This approach should be verified by a third-party certification scheme, it should be extended to all plastic products and mass balance should be technology neutral. This will allow a level playing field for all recycling options to be treated the same. It is also worth noting that CIA have sought both national and international alignment as far as makes sense

in a UK context, working closely with the

British Plastics Federation, Cefic (EU) and the American Chemical Council. The consultation closes on 10th October.

The summer months also saw the development of several significant sustainability-related policies. At the end of June, the International Sustainability Standards Board (ISSB) issued its first two finalised frameworks, with an expectation that the first corporate reports aligned with them will be published in 2025. The two frameworks, IFRS S1 and IFRS S2, are climate focused with IFRS S1 also covering other related environmental risks and opportunities, and both covering Scope 3 emissions. While the former focuses on general requirements for sustainability-related disclosures, the latter is the ISSB's first topic-based Standard, requiring entities to provide information about climate-related risks and opportunities. IFRS S2 requires companies to have plans that disclose physical and transition risks and their potential impact on the move towards a low carbon economy. The Framework requires companies to use scenario analysis to understand how resilient they are in the face of uncertainty and risk. They have been created as global sustainability disclosure standards to improve trust and confidence in company disclosures about sustainability to inform investment decisions. Just weeks after the publication of the frameworks, it was announced that the ISSB would take over all responsibilities of the Task Force on Climate-related Financial Disclosures (TCFD). From 2024, at the same time as the ISSB standard is applied across the globe, the ISSB will be in charge of monitoring the uptake and reporting of companies based on climate-related disclosures as recommended by the TCFD. Building upon the work of the ISSB are the UK Sustainability Disclosure Standards (SDS) which the UK Government have said will be created by July 2024. The UK SDS will set out corporate disclosures on the sustainability-related risks and opportunities that companies face, forming the basis of any future requirements in UK legislation or regulation for companies to report on sustainability matters. They will essentially demonstrate how the UK intend to endorse the ISSB and the Government have established two committees to assist in their creation. The CIA will keep a close eye on any developments to the UK SDS and certainly seize any opportunity to get involved should

Moreover, back in January the CIA contributed to the CBI's response to the Transition Plan Taskforce's (TPT) consultation surrounding transition planning. In July, the

TPT shared the results of the consultation which demonstrated strong support for the TPT Disclosure Framework; respondents emphasised that they expect it will encourage firms to take a strategic approach to managing climate risks, and will result in decision-useful disclosures for users. There was clear support for the TPT's commitment to building international consistency and coherence. However, there were calls for greater guidance and case studies, to aid companies with implementation challenges the TPT have agreed to take this feedback into account as it finalises the Disclosure Framework and Implementation Guidance. As a result of the strong support, the key conceptual building blocks of the Disclosure Framework, such as the recommendation that entities should take a strategic and rounded approach that follows the principles of 'Ambition, Action, and Accountability', will remain in place. The next step of the TPT is to create sector specific guidance, to this end the TPT announced seven sectors which would see consultations on further transition plan guidance this Autumn. Unfortunately, the chemical and pharmaceutical sectors were not selected this time. The sectors are as follows: asset management, asset owners, banking, electric utilities and power generators, food and agriculture, metals and mining, oil and gas.

What's more, companies are faced with a plethora of non-financial reporting mechanisms which often overlap and place additional administrative burdens on companies. In a bid to ease the costs of reporting burdens on business, the Department for Business and Trade launched a call for evidence to streamline non-financial reporting in the wake of Brexit. The Government's intention is to free up companies to focus on growth. The CIA's response highlighted the benefits and challenges of non-financial reporting and made the following recommendations to Government:

- Streamline UK non-financial reporting with the FU CSRD
 - Incorporate ISSB standards which are globally recognised, thus enabling comparisons to be drawn and sustainability credentials to be understood globally.
 - Address double materiality, indicating how external factors might impact a company's operations, but also how internal activities might impact society and the environment.
 - Mandate transition plans for UK companies to demonstrate how

companies will address the risks and opportunities they have identified.

2) Fast-track the UK Green Taxonomy, to

enable UK enterprises to easily identify what counts as sustainable or not. In the EU we saw the Commission voting to adopt the European Sustainability Reporting Standards (ESRS), a measure to mandate enhanced environmental reporting. Aligned with international standards, such as the ISSB, these Standards give greater detail to the Corporate Sustainability Reporting Directive which is likely to impact over 50,000 companies worldwide. Under the ESRS. large businesses will need to enhance their environmental disclosures by embedding them in annual reports from 2024—the Standards will be phased in for medium-sized businesses through to 2026. The key features of the ESRS include the introduction of double materiality, taking into consideration the financial dimension of materiality, as well as the impact dimension. Companies in scope will need to perform materiality assessments for both dimensions and report matters that are material in either dimension for all sustainability-related topics. The ESRS require companies to disclose information against a broad range of environmental, social and governance topics; companies must have the data, processes and expertise to report on topics that may be new to them. Companies will also need to clearly outline their governance structures related to sustainability topics, and sustainability reports must be released in tandem with financial statements. The standards require companies to identify and report impacts, risks and opportunities from across the value chain. In addition, they are expected to report granular information about their policies, action plans and targets to promote transparency, accountability and assurance. While a European directive, CIA have kept SSG members up to date with these measures as they will eventually impact non-EU companies who have significant business activity within the EU and fall under scope.

WORKPLACE HEALTH

HSE focusses on Health in Construction Sector

Over September and October, the Health and Safety Executive (HSE) have been / will be carrying out health manual handling inspections of construction sites with the aim to raise awareness and reduce musculoskeletal disorders. More information is available on HSE's 'Work Right Construction: Your health. Your future' campaign website.







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Health and

Wellbeing



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Aila Bursnall 07951 386926 BursnallA@cia.org.uk In addition to manual handling, HSE continue to run their 'Asbestos and You' campaign and have carried out respiratory health inspections at construction sites to remind employers and workers about the risks associated with everyday tasks and how hazardous construction dust, including respirable crystalline silica (RCS) and wood dust, can affect the long-term health of workers. More information can be found on the asbestos campaign website and HSE's Dust Kills campaign website.

HSE Targets Mental Health of HGV drivers

In August the Health and Safety Executive (HSE) announced its 'Working Minds' campaign would target mental health issues affecting heavy goods vehicle drivers and their employers. Further information on the 'Working Minds' campaign is available on their website.

HSE Publishes new research reports

The following reports have been published by the Health and Safety Executive (HSE):

- RR1189: Modelling flashing liquid releases for hazardous area classification including LPG and ammonia — available on HSE's website.
- RR1190: Factors affecting the severity of vapour cloud explosions – flame propagation from hinging enclosures – available on HSE's website.
- RR1191: Modelling flashing liquid releases for hazardous area classification including LPG and ammonia – available on HSE's website.
- RR1193: Static concrete mixer cleaning establishing alternative methods for control of harmful noise and hand-arm vibration exposures – available on HSE's website.

Ricardo develops world-first tool to improve the assessment of chemical persistence in the environment

Chris Hughes, Head of environmental chemistry and toxicology, Ricardo

In today's world, where environmental concerns take centre stage, the need for effective tools to assess the impact of hazardous chemicals on our ecosystems is more critical than ever. Ricardo has applied its 50 years of world-leading expertise in chemical safety and legislation to develop the Persistence Assessment Tool (PAT), a free-to-use software designed to improve the consistency, transparency and robustness of chemical assessments required by global regulations.

The tool was developed to respond to the recent significantly increased focus on chemical persistence, driven in no small part by the issues of global plastic pollution and the presence of per- and poly-fluoroalkyl substances (PFAS) or 'forever chemicals' in the environment, which has triggered numerous global policy initiatives. The EU's Chemicals Strategy for Sustainability, for example, has proposed new measures for persistent, mobile and toxic (PMT) substances, and introduced requirements to carry out persistence assessments under the Classification, Labelling & Packaging (CLP) regulation.

Additional regulatory measures have created dual challenges for the chemicals industry: a significantly greater demand for chemical biodegradation testing; and many more substances coming into scope for highly complex and detailed persistence assessments.

Persistence assessment

Persistence assessment is a regulatory process whereby the intrinsic potential of a chemical to resist degradation in the environment is evaluated. In doing so, more persistent chemicals are identified and prioritised for potential further regulatory action. The rationale is that these chemicals present the potential for increased and poorly reversible exposure, and hence pose greater risks to people and the environment.

Persistence assessment is a cornerstone of regulatory frameworks, such as EU REACH. The outcomes of persistence assessments can lead to severe business consequences for organisations in chemical and downstream sectors globally. These include, among other things, whether a substance can be placed on the market, the costs of compliance, and market and reputational implications.

Furthermore, regulators need clear and robust approaches for evaluating data and carrying out persistence assessments in order to take effective decisions.

Therefore, guidance is urgently needed for manufacturers and importers of chemical products, regulators, and the scientific community, to understand and carry out these assessments robustly.

Ricardo's solution: the Persistence Assessment Tool (PAT)

Ricardo has developed a first of its kind
Persistence Assessment Tool to provide
manufacturers and importers of chemical
substances and products, regulators, and
the scientific community with support and
guidance to undertake complex persistence
assessments of chemicals in the environment.
As part of Ricardo's vision to create a safe
and sustainable world, this tool is available for
free and can be downloaded at: www.ricardo.
com/pat.

The development of the tool was sponsored by Concawe and the International Collaboration on Cosmetics Safety (ICCS), with support from CEFIC's Long-Range Research Initiative (LRI) and the European Centre for Ecotoxicology and Toxicology of Chemicals (ECETOC).

Key features and capabilities

PAT provides clear guidance and structure to capture and evaluate the quality of information on persistence, and a quantitative methodology to process the data to determine the persistence of a substance in

line with regulatory frameworks and weight of evidence principles. PAT is applicable to all substance types and provides specific features to account for difficult and complex substances. Various options for customisation of the methodology are included to adapt assessments to specific regulatory frameworks and purposes. In addition, a multimedia fate model, based on the EU-adopted SimpleBox model, is included to calculate the persistence of substances in the overall environment, taking account of other potentially important environmental fate and transfer processes.

This tool is the product of Ricardo's decades of experience assessing biodegradation and persistence of chemicals. It has the potential for significant impact at a time of extensive change in regulatory guidance and policy areas.

Our environmental chemistry and toxicology experts have vast experience of placing, monitoring and evaluating regulatory tests, as well as specialist expertise in developing alternative approaches to standard testing requirements. We combine deep understanding of chemicals - including the fate and effects of chemicals in the environment – with regulatory insight to deliver high-calibre solutions, resilience and value for our customers. Our advice is backed up with 50 years' experience in the chemical sector and deep technical expertise in key issues including chemical regulation, sustainable products, biodiversity, climate change and decarbonisation, the circular economy, social value, energy, water, supply chain management and chemical safety.

If you have any questions regarding PAT, or want to discuss any environmental toxicology concerns please contact us at info@ricardo.com or to find out more about our work in the chemical sector visit www.ricardo.com/CIA

NORTH EAST

Over £6.4m of funding has been is awarded to the North East to develop electric vehicle technology

Three winners working on eliminating greenhouse gas emissions, building a lithium scale-up plant and producing sustainable traction motor systems have been awarded a share of £89m funding for the development of cutting edge new electric vehicle technologies.

The funding has been awarded through the Advanced Propulsion Centre UK (APC), in support of ambitions to build an end-to-end supply chain for zero emission vehicles (ZEVs) in the UK. £45.2m of this investment comes from Government, backed by a further £42.7m from the automotive industry.

Regional affairs

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Minister for Industry and Economic Security Nusrat Ghani said: "Together with industry, we're providing a huge £89m of funding to drive 20 groundbreaking net zero tech projects which will help grow the economy and create UK jobs in the industries of the future."

The world's largest offshore wind farm under construction, Dogger Bank, has started producing electricity for the first time for British homes and businesses, marking a major milestone in the development of the offshore wind industry and the transition to a cleaner, more secure energy system.

Prime Minister Rishi Sunak hailed the landmark moment, saying Dogger Bank will

bolster energy security, create jobs, lower electricity bills and keep us on track for Net Zero. The 3.6GW Dogger Bank Wind Farm is being constructed in UK waters 70 nautical miles (130km) off the coast of Yorkshire and in three 1.2GW phases known as Dogger Bank A, B and C.



Quotient Sciences, a leading global pharmaceutical drug development and manufacturing accelerator, announced in October the successful completion of a US Food and Drug Administration (FDA) inspection of its bioanalytical facility in Alnwick, UK.

The regulatory inspection was conducted to audit three bioequivalence studies for three different insulin analogues for a renowned pharmaceutical company. Quotient Sciences' Alnwick facility has specialty bioanalytical expertise and facilities for conducting bioequivalence studies, which play a crucial role in evaluating the similarity between pharmacokinetic properties of two proprietary preparations of a formulation.

Work has begun at Teesworks, ahead of a 'world-leading' NZT power project

Groundbreaking work has begun at the former Redcar steelworks which will become the home to the world-leading Net Zero Teesside Power project — an important moment for Teesworks, Teesside and the UK's low carbon ambitions.

The preparatory work by Teesworks is underway following the recent signing of an option-forlease agreement between NZT Power partners bp and Equinor, and Teesworks. NZT Power aims to be the world's first gas-fired power station with carbon capture and storage capability, and will help drive Teesside's aim to become the UK's first decarbonised industrial cluster as early as 2030.



Weardale Lithium Limited, a natural resources company based in County Durham, has announced that together with Tees

Valley Lithium Ltd, it has secured a joint funding package of approximately £613k, which includes a grant of approximately £430k from Innovate UK.

Through collaborative research and development, the two companies are building upon the MoU signed last year to evaluate the potential synergies of both producing and refining lithium in the North East. The project will identify novel methods for the production and refinement of lithium extracted from geothermal brine resources in the context of developing an integrated and robust route from 'borehole to battery'.



Photo: https://teesvalleylithium.co.uk/processing. hub/

SCOTLAND

Supplying world-class customers based in Scotland and simplifying the local supply chain

Guala Closures UK is one of INEOS' most local customers, receiving one of a range of grades of polypropylene manufactured at the Grangemouth site. The short distance between Grangemouth and Guala's site enables a simply supply chain; reducing emissions associated with transporting the raw materials and contributing more fully to the Scottish economy.

Guala Closures UK uses INEOS's polypropylene primarily in the manufacture of bottle top closures (below right) for the fast growing Scotch whisky sector *

Annabel Harris, UK Sales Manager for INEOS says, "Keeping it local means that we are reducing the CO_2 emissions that you would associate with more complex supply chains and import of raw materials from elsewhere. We are keen to support Guala in bringing sustainable solutions with our range of high quality polymers to what is a growing market for bottled exports of Scotland's traditional drink."

NORTH WEST

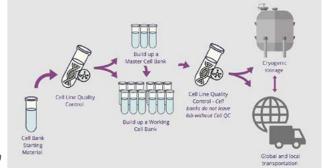
North West life sciences firms collaborate to launch new scientific research service

Two North West life sciences firms are teaming up to launch a new service designed to enable innovative scientific research and accelerate their growth in the pharma and biotech sectors.

The collaboration between Cryoniss, which has facilities in Runcorn and at the Alderley Park bioscience campus near Macclesfield, and Daresbury-based Perfectus Biomed Group, strengthens the relationship between the two companies.

By expanding into cell culture services, which seek to ensure the integrity of data produced through research, Cryoniss which was founded in 2018 moves beyond biological sample storage and logistics.

Sonia Houghton,
co-founder and CEO
at Cryoniss, said: "This
collaboration gives us the
ability, for the first time,
to support our customers
with the generation of
high-quality cell banks,
providing them assurance
that their cells are free from
contaminants."



ow the cell bank collaboration between Cryoniss & Perfectus Biomed orks. Photo: https://www.cryoniss.com/cell-culture-collaboration/

Chemicals network creates 'innovation suite' in Runcorn

Chemistry Innovation, a knowledge transfer network supporting the chemicals industry, has moved into ultra-modern new premises at The Heath Business and Technical Park in Runcorn.

Previously the group shared office space on The Heath with two other chemistry-based organisations but has now created its own 'Innovation Suite' on the business and technical park. The new suite was the brainchild of CEO Carol Boyer-Spooner who was determined to create a unique office environment for the organisation's employees.

She said: "Chemistry Innovation has been based at The Heath since 2006. With our new accommodation we wanted to create something a bit different that offered an even greater feel and atmosphere, and we're delighted with the results."

HUMBER

CATCH announced (September) a new £60M National Net Zero Training Centre expansion at its Stallingborough Headquarters.

The objective, to reach a training goal of 1000 apprentices a year by 2029 with the intent of tackling the engineering construction skill shortages anticipated in the Humber cluster and across the UK.

Following initial funding support from key industrial sponsors, and CATCH members, Phillips 66 Limited, Harbour Energy, and VPI Power, CATCH has developed plans for the training centre. CATCH remain keen to build broad support across industry and government for this new national net zero training centre.

While the project remains subject to further partner engagement and planning permission, the new facility is planned to house a national net zero conference and learning centre, bespoke classrooms and workshops for electrical, instrumentation, mechanical technical skills, a welding and fabrication hub with an impressive 160 welding bays, and a UK first of kind outdoor Process Unit Training Module to enable a real process site experience in a safe environment for all trade skills. Good luck to CATCH as plans develop, CIA members are supportive.



Responsible Care

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MEASURING OPERATIONAL PERFORMANCE — "YOU CAN'T IMPROVE WHAT YOU DON'T MEASURE!"

2023 REPORT ON CIA'S ANNUAL INDICATORS OF PERFORMANCE SURVEY (2022 DATA)

One of the cornerstones of Responsible Care in CIA for more than 30 years has been Performance Measurement — as a way of monitoring performance trends and providing anonymised sector-wide data that companies can use for their own internal benchmarking. Our annual Indicators of Performance (IoP) survey is 'live' in January each year, requesting the previous year's data from all CIA member manufacturing sites, which we then collate to produce the annual Report. The information required covers safety; process safety; environment; health; and supply chain aspects including transport.

In this article we present some snapshot highlights from the overall 2023 Report.

This year CIA circulated a copy of its **2023 Report on the annual Indicators of Performance Survey (2022 Data)** to members at the end of July — and many thanks to all those businesses and the relevant staff who contributed their time, effort and data to this collective effort to respond to the survey. We couldn't provide this service to members without you. We hope the Report was helpful to you for benchmarking against your own site performance monitoring and improvement plans. We also use the Report and its aggregated data for positive messaging to various stakeholders — including the Regulators — on behalf of CIA members.

Survey returns were received from 104 member sites, representing 83% of those sites requested to complete the survey. This is a much-improved response rate compared to recent years, and once again our sincere thanks to all who contributed to this exercise.

Business Environment

2022 was another very challenging year operationally for the Chemicals Sector, following on from previous difficult periods. Businesses faced many adverse factors including the continuing effects of 'living with COVID' and EU Exit; severe economic downturn impacting production and markets; the energy price and volatility crisis; raw materials supply and cost increases; and skills/retention/recruitment challenges which many businesses still struggle with. While the pandemic years demonstrated yet again the Sector's resilience to 'weather the storm', these factors can impact operations and unless robust site processes to manage safety and environment performance are maintained, incidents, accidents and legal compliance issues can easily escalate.

Main Findings - Summary

The basic safety, health, and environment metrics for 2022 data show a reasonably good performance. The 'snapshot' summary in **Table 1** illustrates that the main frequency rates and reported numbers for employee accidents, major injuries and diseases showed a small decrease in 2022 compared to 2021, though were still higher than the average for the past 5 years.

Table 1 – Employee and Contractor Health and Safety Summary

	Change	2022	2021	2020	2019	2018
Own Employee Fatalities	Ψ	0	1	0	0	0
>3-day Accident Frequency Rate	Ψ	0.15	0.16	0.13	0.11	0.15
>3-day Accidents	Ψ	56	58	42	57	46
RIDDOR Major Injuries	Ψ	11	12	7	6	11
>7-day Accident Frequency Rate	Ψ	0.1	0.12	0.09	0.08	0.104
RIDDOR >7-day Accidents	Ψ	37	40	30	41	28
RIDDOR Diseases	+	0	4	5	4	5
RIDDOR Dangerous Occurrences	1	26	20	18	25	23
Contractor Fatalities	\rightarrow	0	0	0	0	1
Contractor Major Injuries	↑	8	6	5	4	1
Contractor >7-day Accidents	↑	20	12	18	12	11
Contractor >3-day Accidents	↑	23	13	21	16	16

However, reportable Dangerous Occurrences and Major Injuries and Accident figures for Contractors, all increased, and are at the highest reported levels for the past five years.

Although the Process Safety Incident Rate (**Table 2**) was relatively stable, there were big reductions in sites maintaining Process Safety Improvement plans (down by as much as 10% compared to previous years) and oversight monitoring by senior management (down by 10-14%) compared to previous years. See **Tables 3 & 4**.

Table 2 - Process Safety Incident Rate

Year	Incidents	Own Employee and Contractor Hours	Incident Rate
2022	165	55,445,277	0.595
2021	164	53,834,361	0.609
2020	152	45,995,886	0.66
2019	148	67,561,355	0.438
2018	130	52,096,202	0.499

 ${\bf Table~3-Maintaining~Improvement~Plans}$

Percentage of sites maintaining annual Process Safety Improvement Plans							
2022	2021	2020	2019	2018	2017		
87%	97%	91%	88%	93%	92%		
13%	3%	9%	12%	7%	8%		

 ${\bf Table\,4-Monitoring\,Improvement\,Plans}$

Senior Management monitor the delivery of the Improvement Plan							
	2022	2021	2020	2019	2018	2017	
Yes	83%	97%	95%	92%	95%	94%	
No	17%	3%	5%	8%	5%	6%	

Regulatory Actions (**Table 5**) show a significant increase in 'Other actions' reported. This suggests that (a) CIA members have become better at reporting 'actions' and/or (b) the regulators are issuing more 'Actions Legal' than previously following intervention visits. Anecdotal information received from member companies at CIA Responsible Care meetings tends to support the latter, that regulatory intervention visits are generating significantly more 'Actions Legal'.

CIA proposes to discuss this with senior contacts at HSE and the Environment agencies, to see if there has been any change in policy or instructions to inspector staff. Aggregate statistics on numbers of enforcement notices and actions legal are published by the regulators, and it is important to ensure that performance reporting is based on consistent enforcement principles.

Table 5 – Regulatory Actions

Actions	2022	2021	2020	2019	2018
Prosecutions	0	3	1	0	1
Prohibition notices	1	0	1	0	1
Improvement notices	9	6	4	3	7
Category 1 and 2 Environmental Breaches	11	6	5	10	3
Other actions (e.g., Actions Legal)	101	50	46	16	47

What Next?

From the data supplied by companies which contributed to the 2023 Report, there are some key performance issues that require further follow-up to check on the accuracy of the reporting and to consider actions that CIA can help with to improve the focus on the following areas:

- Management of Contractor Safety. Contractor major injuries and accident figures have deteriorated significantly since 2021, and in fact are at their highest levels for more than 5 years;
- Process Safety Improvement plans. There appears to have been
 a sharp decrease in the percentage of companies maintaining
 and monitoring Process Safety Improvement Plans the figure
 for 2022 (and also the figure for senior-level monitoring of KPIs)
 is significantly reduced, and is currently the worst for more than 5
 vears:
- 'Actions Legal' issued by Regulators. There appears to have been a very big increase (100%) in the number of 'Actions Legal' reported compared to the previous 5 years. We need to understand why this is the case, and whether it's due to poorer standards at member company sites, or different enforcement policy by the regulators, or perhaps a bit of both.

CIA's Responsible Care team will follow up the three main priority areas highlighted above from the survey (including with HSE for the Actions Legal point) to understand better the reasons behind those indicators which are a cause for concern.

Additional actions on Performance Indicators

This year's survey included additional questions seeking examples of key leading and lagging Process Safety Performance Indicators (PSPIs) used by sites together with examples of Process Safety site improvements.

Examples of leading indicators shared with us included 'Completion rate of safety critical preventative maintenance tasks'; 'Numbers of Management of Change (MOC) actions overdue'; and 'Overdue Process Hazard Analysis (PHA) actions'.

Examples or Process Safety improvements included a 'review of mechanical ATEX assessments and associated maintenance plans'; 'Provision of FOPS (Fundamentals of Process Safety) training to improve competency'; and 'Improved tanker driveaway protection at by-product treatment plant'.

At CIA we believe there is value in sharing examples of PSPIs as a way of stimulating companies to think about their own indicators, and to challenge whether any further improvements can be made. We intend to publish a separate PSPI paper after consulting CIA's extensive Process Safety Network, from which we already have some information about which Performance Indicators (both Leading and Lagging) are commonly in place. We'd also like to encourage CIA member companies to challenge what they currently do on performance indicators at Board level, and whether they should review their current arrangements for senior leader overview. Watch this space!

Next Year's 2024 Survey (using your 2023 data)

CIA intends to follow a similar timeline for 2024 as for 2023. The survey questionnaire will be sent out in January 2024, with an end of April 2024 deadline for responses from sites, and with the data collated by CIA and the final Report published by the end of July 2024.

For next year's report we are taking a very critical look at how best to shorten and streamline the survey, so that only essential questions are asked of you. There are some 'mandatory' reporting requirements for CIA to send anonymous aggregated performance data to CEFIC (The European Chemical Industry Council) and the International Council of Chemical Associations, ICCA; these reporting requirements are currently under review. The ICCA KPI Enhancement Project (which CIA co-chairs) makes several proposals which are subject to final ratification at the ICCA RC Leadership Group meeting in October 2023.

The intention is to produce a much-reduced, tighter focused set of data, which can be collected much more consistently from a much larger global range of National Associations like CIA, and which should then lend itself to better and stronger positive messaging about our industry. ICCA intends to share these proposals at the International Conference on Chemicals management (ICCM) and the United Nations Environment Programme (UNEP) meetings at the end of September. CIA's IoP Survey for 2024 will adopt the new and more streamlined shorter survey. This will also mean that we're not over-burdening member companies in requesting lots of data provided to CIA that we no longer need or use.

At CIA we aspire to a 100% survey return rate from members. While there may always be reasons why all companies can't deliver on this, the big improvement we achieved of an 83% return with your help and cooperation in 2023 shows what's achievable. CIA would like to ask once again for CEO/senior leader support next year in achieving this please. Completion of the IoP survey by CIA members sites is a condition of CIA membership, endorsed by our Council of senior leaders — and we only use the information for your benefit. As the saying goes — "you can't improve what you don't measure"!

Further Information

If you have any queries, comments or observations on the survey report please contact Terry Woolmer WoolmerT@cia.org.uk or Phil Scott scottp@cia.org.uk

Meanwhile, all CIA's existing delivery of Responsible Care to support your sites continues — through the regional RC Cell Groups, Networks, best practice sharing and communications. So get involved with it!

Member company news

FOR FURTHER INFORMATION CONTACT:



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Welcome to our new Associate Members

H2 Compliance

H2 Compliance is a full-service chemical and environmental consulting firm dedicated to successfully introducing our customers' products onto global markets. We help our clients ensure compliance and market access by applying our breadth of knowledge to the business complexities of topics including REACH, UK REACH and REACHlike programmes, GHS implementation worldwide (SDS and labelling), PCN and element1™ chemical management software. H2 Compliance has a global footprint with offices across Europe and the US and with a network of trusted in-country partners. Being part of the Landbell Group expands our services into the environmental arena and the circular economy - covering WEEE, batteries, packaging, take back programmes as well as software offerings.

Landbell H2 Compliance A Landbell Group Company

OpenPSM

OpenPSM is a simple and unique cloud-based software product, built around internationally recognised good practice guidance. It has been designed to help companies to self-assess systems against relevant guidance to demonstrate that they are effective in managing major accident hazards.

The software allows companies to log and assess essential programme elements against good practice guidance to drive continuous improvement in line with regulatory expectations and the aims of Responsible Care.

We can help accelerate digital transformation for companies wanting to engage with a real-time, multiplatform product. We work across the hazardous process industries predominately nut not exclusively for upper tier and lower tier chemical and pharmaceutical operating companies. OpenPSM is also relevant for oil and gas, energy and utility companies.

Our mission is to help those from shopfloor to boardroom contribute to a sustainable transition to world class performance in process safety management and reporting.



Powerstar

Powerstar specialise in the design of smart technology solutions to address some of the biggest issues facing business today: energy security and power resilience, energy costs, efficiency, and emission reduction to achieve Net Zero. Our unique combination of cutting-edge technologies and market-leading engineering expertise delivers solutions tailored to the needs of a specific site, delivering substantial efficiencies — reducing costs, consumption, and carbon emissions.

Powerstar have an enviable track record for rolling out energy technology solutions, helping clients meet complex energy needs — from high-value and high-volume manufacturing to defence, utilities, pharmaceutical and chemical plants, data centres, retail and leisure, transport, and the oil and gas supply chain.

We help customers manage on-site power flows effectively and intelligently, with sophisticated control systems and a core product range including battery energy storage systems with site-wide Uninterruptible Power Supply (UPS), voltage optimisation units, super low-loss transformers, and advanced microgrid technologies — all designed and manufactured in the UK.

Our end-to-end project approach, led by an expert engineering team and AI specialists, has been empowering customers to achieve their energy efficiency goals since 2001.



Managing electrification with smart energy solutions — for greater efficiency, lower costs, and reduced carbon emissions



While fewer CIA members feel that energy is the sector's biggest challenge than did so earlier this year, nearly a quarter are anticipating increased energy costs. Solon Mardapittas, CEO at Powerstar looks at some of the energy management options helping chemical industry companies take

greater control of energy bills while making the Net Zero transition.

In his Executive Summary to the Third Quarter Economic Report, Steve Elliott highlighted energy issues facing the sector for the coming months, "In Q2, prices of energy were stable, mainly due to a decrease in household demand, but with winter approaching and the UK not in a significantly better place in terms of energy storage and production from the previous winter, energy-intensive industries and households should expect a bounce back of energy prices."

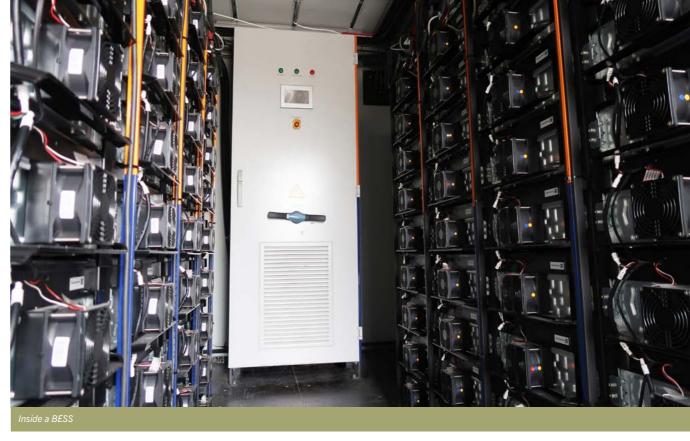
The Net Zero transition was raised by members as the most worrying longer-term issue, with a perceived lack of support from central government. In this economic landscape, many forward-thinking companies are reviewing their own energy infrastructure to make efficiencies, working toward more sustainable energy and immediate cost benefits.

Reducing reliance on fossil fuels — electrifying processes previously powered by gas — can significantly reduce carbon emissions, but introduces new issues: higher

electricity bills, and a lack of site capacity. It may seem counterintuitive to increase the percentage of electricity over gas, when looking to reduce costs — after all, wholesale gas is about a third of the price of electricity. However, in addition to emission reductions, increased electrification brings far greater flexibility and control over operations — for more efficient and intelligent power generation, management, and use.

Modern energy management technologies such as Battery Energy Storage Systems (BESS) with site-wide Uninterruptible Power Supply (UPS) - can transform the way companies manage their energy infrastructure and supply. A modern BESS can provide site-wide protection in the event of disruption to Grid supply, ensuring continuity of production, with 95% lower losses than a traditional UPS. Where companies have on-site renewables to generate their own clean energy a BESS can store this for use when needed and when Grid energy is at peak cost - making better use of renewable assets for cost savings and carbon reduction. For companies who have not yet invested in renewable assets, zero VAT and renewable infrastructure being exempt from business rates until April 2035 make a compelling case for investment in modern, greener energy management. And, for energy intensive manufacturers the savings with BESS can be significant. For one Powerstar client, Grid supply interruptions were costing up to £100,000 per incident in wasted product and downtime. Their site is now protected against such disruptions, while they are also seeing a 5% reduction on energy bills. For another client, with complex and large energy requirements, a modern BESS with UPS is saving around £225,000 per annum, reducing emissions by 190 tonnes CO₂E. Savings can be significant, but

many chemical manufacturing sites are energy-intensive, possibly already close to the available capacity allowed by their Distribution Network Operator (DNO). This is potential hurdle to progressive electrification plans, as an application to the DNO to increase site capacity may be turned down if





the DNO feels it could impact on overall local distribution. If allowable, a company may face a prohibitively expensive connection cost with a long wait time — possibly years. An alternative solution for businesses wanting to take greater control over their energy infrastructure is a smart microgrid, which uses an intelligent energy management control system to incorporate on-site renewables, battery energy storage, and other assets such as EV charging, into a local network capable of operating in island mode — independent of the Grid — when necessary.

While most chemical companies are unlikely to be capable of operating entirely independently of the Grid, given their intensive energy use, intelligent energy

management software controlling the microgrid makes real-time decisions, and predicts trends (e.g. weather forecasting and impact on renewable on-site generation) to seamlessly switch between energy generated on-site and Grid power, optimising energy cost reductions and managing requirements 24/7. Site, grid, and asset data can help inform strategic load planning, maintenance scheduling programmes, potential points of failure across the site, and energy efficiency opportunities. In the process of gathering data, the energy management and control system creates a digital twin of the site, enabling the Al-driven system to continually learn and improve – and the more complex the infrastructure and the more data available

to the control software, the more effective an asset it becomes.

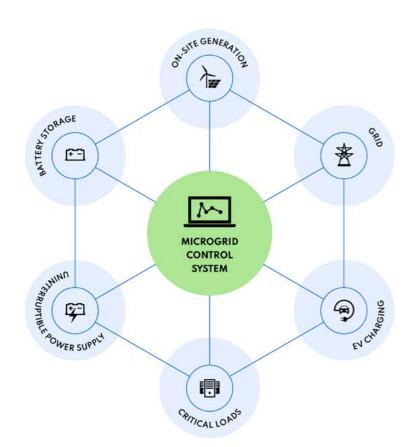
Implementing a smart microgrid solution is a complex project, requiring the right technical expertise and cutting-edge energy management technologies. But, as noted in the Q3 Economic Report, "Given the state of the energy market, it is understandable that members see energy efficiency and the Net Zero transition as an area of opportunity." Partnering with energy management specialists to improve your infrastructure can be a valuable step on the journey to Net Zero, offering cost savings and helping futureproof your site as innovations in energyintensive technologies and processes are rolled-out, helping to maintain and increase competitiveness – for both the short- and the longer-term.



For more information, talk to Powerstar about a feasibility study:

W: www.powerstar.co

T: 0333 230 1327



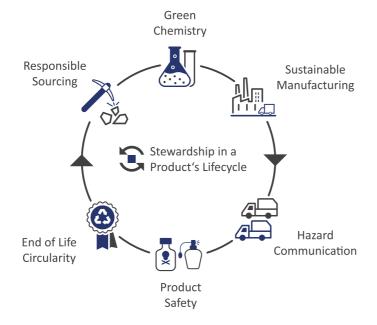
LEADING THE WAY IN GLOBAL **CHEMICAL COMPLIANCE AND PRODUCT STEWARDSHIP**



H2 Compliance is a full-service chemical and environmental consulting firm dedicated to successfully introducing our customers' products onto global markets. We help our clients ensure compliance and market access by applying our breadth of knowledge to the business complexities of topics including REACH, UK REACH and REACHlike programmes, GHS implementation worldwide

(SDS and labelling), and PCN, underpinned by our element1™ chemical management software and product stewardship expertise. H2 Compliance has a global footprint with offices across Europe and the US and with a network of trusted in-country partners.

What we offer Product Stewardship GHS Hazcom EU and UK REACH full suite services Only Representative solutions International REACH-like Services Data management software Cosmetics support Delivered by means





About us

In 2014, ERP joined Landbell Group and is now able to a full range of takeback, environmental consulting and chemical compliance services. Landbell Group is a leading global supplier which helps companies to carry out their extended producer responsibility (EPR) obligations. With customers in many countries, and colleagues based all over the world, we are a global platform for EPR.

Our unique approach

- An international team and network of compliance experts combine unrivalled operational expertise with consulting competence
- · We run more approved EPR schemes than any other organi-
- We offer international support for EPR and chemical regulations, as well as software solutions for efficient compliance management processes
- Our global takeback programmes collect products anywhere

Our service areas

- Environmental compliance
- Chemical compliance
- Product takeback
- Consulting Software
- Global solutions

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- Our real-time dashboard provides meaningful information, with an up to date view of progress and easy to understand graphs and charts.











ChemTalent takes part in the first ever Youth Forum at ICCM5



The Youth Forum at #ICCM5 marked a historic moment for the United Nations and governments as young people came together to discuss their needs and priorities for the future of chemicals governance. The youth delegation demands targeted policies and programs that specifically address youth and children's environmental health, rights, and justice in the context of chemical exposures, monitoring, and risk assessments. This marks a significant step towards a safer and more sustainable world.



ChemTalent

FOR FURTHER INFORMATION CONTACT:

www.cia.org.uk/chemtalent

chemtalent@cia.org.uk

The ChemTalent Network took part in this groundbreaking event. Amy Louise Summerton, CIA's Young Ambassador and ChemTalent

leader, participated in a panel discussion centred around educational systems for a green and sustainable chemistry revolution along with other young professionals/ scientists, chemistry students, and representatives of institutions who are building resources and increasing access for students in green chemistry education.

Amy said, "This is a remarkable moment for the youth, and I am excited to see their voices heard and amplified as we collectively work towards a greener and safer future for all. Let's continue to foster collaboration and drive positive change!"

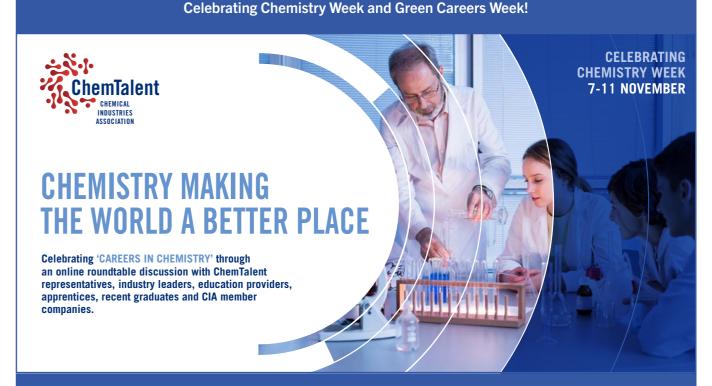


ChemTalent Panel Discussion at the CIA Sustainability Conference

This year, ChemTalent took part in a panel discussion on the future of the chemical sector at the CIA Sustianability Conference. Three representatives from the ChemTalent leadership committee participated and focus on "What's missing in the sustainability conversation".



ChemTalent speakers Thet Su Aye Chan, Sameen Barabhuiya and Jonathan Vincent highlighted the significance of empowering the next generation of industry leaders. Speakers emphasised the underlying importance of nurturing the voices and ideas of the next generation as well as the necessity of supporting women throughout their careers in the industry and fostering an environment that encourages and retains young talent, crucial to the sustainability journey.



Get ready for an exciting month of celebrating the wonders of chemistry as we gear up for Chemistry Week and Green Careers Week, taking place from November 5th to November 11th. We invite you to join us in honouring the chemical sciences throughout the entire month of November under the captivating theme of "Chemistry making the world a better place."

One of our key activities during Chemistry Week will be a roundtable discussion. Our ChemTalent is thrilled to host a panel of industry leaders, education providers, apprentices, recent graduates, and the ChemTalent committee for an engaging Q&A discussion. Here's a sneak peek of what you can look forward to during this event:

- 1. **Different Career Paths:** Our panellists will share their personal career journeys, illustrating that chemistry offers diverse and unique paths. Whether you're drawn to the lab or aspire to make decisions in the boardroom, chemistry opens doors to a wide range of fulfilling professions.
- 2. **Importance of Industry & Education Collaboration:** We will delve into the essential synergy between industry and education. Learn how collaboration between these two sectors drives innovation and cultivates the next generation of chemists who can tackle realworld challenges.
- 3. **Sustainability & the Chemistry Curriculum:** In our rapidly evolving world, sustainability is a top priority. We'll discuss how the current chemistry curriculum adapts to these changing themes and equips students with the knowledge and skills necessary to address the challenges of the future.
- 4. **Supporting Future STEM Careers:** Join us in exploring what we can collectively do to support aspiring STEM professionals. Together, we can pave the way for future chemists, scientists, and innovators by providing mentorship, resources, and guidance.
- 5. **Chemistry in School vs. Real World STEM Roles:** We'll tackle the age-old question of whether the chemistry we learn in school effectively prepares us for real-life STEM careers. If there's a gap, we'll discuss strategies for bridging it and ensuring a smoother transition from academia to the professional world.
- 6. **STEM Initiatives & Collaboration:** Discover the initiatives that companies are undertaking to promote STEM fields and how we can all support each other in our shared mission to make the world a better place through the power of chemistry.

As we celebrate Chemistry Week and Green Careers Week, we invite you to be a part of this enlightening discussion. The chemical sciences have a pivotal role in shaping the future, and by coming together, we can inspire and guide the next generation of scientists and innovators.

GOVERNMENT AND POLITICS

CIA at political party conferences

Party conference season is finally over with the Conservatives, Labour, Liberal Democrats and the Scottish National Party among the parties bringing their members and MPs together. As the political arena quiets down, it's now time to step back and reflect on the key moments, decisions, and developments that unfolded during this pivotal period. This Autumn we had a series of meetings at the main political party conferences. Our messages were focused on:

- The need for a stable policy environment;
- An industrial strategy with chemicals playing a key rol;
- A net zero transition that works for UK business:
- Innovation that leads to UK manufacture;
- Trade agreements that deliver for UK businesses (with negotiators checking back more often before deals are signed); and
- An education (including visa) system that provides people for industry.

We will be having follow-up meetings across all of the parties based on these themes as we approach the general election.

This Autumn CIA held a series of meetings at the 2023 annual party conferences and met various key politicians

Communications

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The focus of the Covid-19 inquiry

The Covid-19 inquiry is the subject of much current political discussion. While the inquiry has a clear remit to "examine the UK's response to and impact of the Covid-19 pandemic, and learn lessons for the future", anyone could be forgiven for thinking it was an inquiry into 'how Government works' or as seems to be being demonstrated – 'does not work'. More precisely the real focus seems to be the then Prime Minister's – handling of the Covid-19 pandemic. This week, witness after witness has laid bare a series of allegations of bullying, exclusion and sheer confusion at the heart of Government - not to mention, some choice use of language! At the moment of course these are just personal views and experiences. It will be for the UK Covid-19 public inquiry Chair, Baroness Heather Hallet, a former Court of Appeal

judge, to determine what happened and why. Before that, we can expect that there will be more revelations.

CIAMATTERS AUTUMN 2023

If only some of the allegations and statements made so far are accepted as accurate, then any recommendations about the way in which decisions are made will have wider repercussions for the running of Government. To be fair, we have yet to hear from the man at the heart of the allegations, the then Prime Minister Boris Johnson, and for any Government to be hit by a pandemic in the 21st century was never going to be a straightforward response.

Acknowledging the tragic consequences for many families, the CIA and related industry interest lies in the general running of Government and the way in which decisions

are made that impact business generally and our sector in particular. Even in 'normal' times, the business community's desire is for certainty and predictability but that is completely at odds with the workings of Government which may have day-to-day plans to get on the front foot but these are invariably influenced by unexpected events. Despite the efforts of the current Prime Minister and Chancellor to establish some stability, there remains too much confusion and a lack of coordination with regard to the political and economic framework in which we operate. That said, after many years and months respectively, I do hope I will be reporting more favourably within the coming weeks on UK REACH and a UK Chemicals Strategy, but alas ... still not yet!

Autumn Statement

One of the key events of the political year is coming up on 22 November when the Chancellor of the Exchequer makes the Government's Autumn Statement. This is where Jeremy Hunt — and there are rumors of an imminent reshuffle but let's assume it will be Mr Hunt — will provide an update on the government's plans for the economy based on the latest forecasts from the Office for Budget Responsibility (OBR). The forecasts, called the Economic and fiscal outlook (EFO) are published twice yearly, at Budget and at Autumn Statement. They look at the future performance of the UK economy.

The OBR provides an updated statement on the current state of the public finances and whether the government is going to meet its own fiscal objectives. The main objective, set by the government, requires it to balance its budget at the end of a rolling five-year period. A balanced budget means the amount spent by the government in a year, on things such as the NHS and welfare is equal to the amount brought in by things like taxes. During the Autumn Statement the Chancellor updates MPs on the government's taxation and spending plans, which are based on the latest forecasts for the UK economy, from the OBR.

In our submission we are calling for action in five areas:

- **1. Energy:** Deliver on industry supercharger commitments, pursue Review of Electricity Market (REMA) reforms, ensure levies do not negatively impact consumers including industrial businesses who are unable to fuel switch due to unavailability or delays in infrastructure.
- **2. Investment incentives:** Compete with America's Inflation Reduction Act (IRA) and EU's soon to be confirmed response. To follow the Super Deduction full expensing of main rate plant and machinery in the first year and a 50% first year allowance for special rate plant and machinery.
- **3. REACH:** A more cost-effective UK registration system and revision of UK REACH fees so that they are proportionate rather than identical to EU REACH.
- **4. Sustainability / net zero:** The set-up of a UK ETS innovation fund, confirm long term carbon policy plan including UK carbon leakages and withdrawal of UK-only carbon price support mechanism. A clear signal for remaining cluster projects, including delivery of planning and permitting reforms. Streamline reporting to support and deliver on net zero.
- **5. Business Taxes:** Focus on improvements to simplicity, generosity and scope of the apprenticeship levy, R&D tax credits and business rates.

Rishi Sunak has now been Prime Minister for a little over a year. On taking office in what were by anyone's assessment difficult circumstances he had a rating of 52% approve, 48% disapprove. The position one year on is 40% approve, 60% disapprove. But of course there is only one poll that matters and that will happen sometime in the next 14 months.

MEDIA COVERAGE

Since our last update, the CIA has continued to stress that the UK chemicals sector needs a stronger decarbonisation policy and this has been picked up by the media. After the CIA Chemical Industry Awards in late June, ICIS captured the industry's concern of not keeping up

CIAmatters AUTUMN 2023

with business-supportive initiatives being rolled out elsewhere in the world, while there has been little progress on easing the burden of UK REACH. I said: "If our industry is going to play its part in realising that ambition then most immediately we need a more pragmatic UK REACH and net zero policy and funding landscape that enables the UK to compete with America's Inflation Reduction Act and the European Union's Net Zero Industry Act". Chemicals will be fundamental to the net zero transition

On REACH, I confirmed that whilst we were grateful that the Government had agreed to identify a more pragmatic solution than the current design: "We saw little progress, with chemical manufacturers facing the need to duplicate the cost of all of their EU REACH investment of the past decade and their customers having to take on a new and costly registration responsibility". You can read the full article here.

We recently echoed our message on the need for a strong decarbonisation policy three months on in an article titled 'The importance of foreign investment to the UK: How the chemical industry supports economic growth'. The importance of a stable policy environment is largely to do with establishing the competitiveness of the UK. We have recently seen new and significant chemical investments into the US due to inducements available under the Inflation Reduction Act and into the EU under the European Green Deal. Both the US and EU have seen new investment into hydrogen production. This article stressed that "the UK Government should take key policy decisions to kickstart investment in hydrogen and lay out how it plans to have 10GW of hydrogen production capacity by 2030". Clarity and clear commitment will benefit existing practitioners and encourage new investment from those in the critical supply chains. Innovation within the chemical industry will underpin how all sectors can work together to reach net zero. As the CBI mentioned in 'Ensuring green growth comes from the roots of industry', which referred to the CIA's collective ambition to halve CO₂ emissions by 2034 and further reduce them by 90% by 2050 in 2021, "If the [chemical] industry can transition successfully, the impact they can make throughout the supply chain is huge".

In August, Brexit was once again leading news stories as UK ministers were set to announce a further delay to post-Brexit border controls on animal and plant products coming from the EU, amid fears that extra bureaucracy on imported goods would fuel inflation. The *Financial Times*, in an article

titled 'Brexit ideology is being shunned as economic conditions deteriorate', featured the CIA's most recent business survey results to reflect on the underlying market conditions. The results were worrying, as considering the baseline and the past year's trend, 58 per cent of companies reporting further contractions in sales is concerning. Our industry needs a political commitment to long-term policy stability and a competitive funding landscape for innovation and investment.

Finally, a couple of good stories to report

Education and

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employment

on – the first of which CIA has reacted positively to. At long last, the UK has reached an agreement with the European Union to associate to the Horizon Europe and Copernicus programmes. Speaking to journalists, I said, "We welcome today's announcement that the UK will be part of Horizon Europe. It is fantastic to know that, after years of uncertainty, the science community will have better stability to drive forward our ambition to grow the economy and work to establish the UK as a science superpower. The chemical industry, as a crucial supplier to various key industries, including pharmaceuticals and food as well as aerospace and automotive, will be able to support those industries to tackle the biggest challenges of our time, from climate change to health to sustainability". You can find our statement here.



- The importance of foreign investment to the UK: How the chemical industry supports economic growth.
- The Chemical Industries Association welcomes government announcement that the UK will be associating with Horizon Europe.
- The Chemical Industries Association reacts to UK's net zero policy changes
- Chemical Industry Announces Global Ambitions At Landmark UN Conference On The Future Of Chemicals Management
- Key manufacturing industry continues to struggle — CIA Business Survey



- Fourth Quarter 2023 Economic Report
- Modernising UK's environmental permitting process

EDUCATION AND EMPLOYMENT

From A levels — or equivalent? — to university

The media in Wales reported recently that many of the UK's top universities refuse to recognise the Welsh Government's controversial Welsh Baccalaureate qualification for all of their courses. The Welsh Government and exam regulator Qualifications Wales insist the course is equivalent to an A-level but some top Russell Group universities simply don't include the Welsh qualification in their offers at all and demand three A levels. Others will, but not for all courses and some accept it as A level equivalent for all courses.

Earlier this month Rishi Sunak announced plans to change A levels in England so that all pupils would study some form of English and Math to the end of their time in school. The Welsh Government responded saying the Welsh Baccalaureate covered those ideas already, although the qualification does not include formal Math or English lessons. One of the key links in the UK education system is what happens in getting students to university. It is important that before students enter degree courses they have the ability to complete one. A levels or any equivalent including the Welsh Baccalaureate if it can be shown to be equivalent – are a key part. It is important for our industry and all employers that this dispute is resolved to whatever outcome is appropriate.

Securing interest in our sector from an early age

The latest meeting of the Advisory Committee of the Centre for Industry Education Collaboration (CIEC) was held recently. CIA is a supporter of CIEC which focuses on highlighting STEM opportunities for young people by building visible links between science education and its application in industry and related careers. There are a range of tailored approaches to working with schools across the country that can be linked up to CIA member companies. The Children Challenging Industry project is a great way to promote enthusiasm among school children, motivating a future workforce by engaging them in STEM activities that encourage career opportunities. The CIEC expertise will help to increase and sustain the number of local children considering a future within the industry.

National Manufacturing Day

CIAMATTERS AUTUMN 2023

Each month we publish a joint newsletter on skill with Cogent Skills — the sector's skills body. In November we featured National Manufacturing Day to recognise the role of science in manufacturing. We had a number of case studies with people from the sector explaining their journey:

- Graeme Conway (Apprenticeship Mentor, ConocoPhillips)
- Jake Williams (Apprentice Mechanical Maintenance Technician, ConocoPhillips)
- Ben Smith and Louie Hall (Science Manufacturing Technician Apprentices, Fujifilm Diosynth Biotechnologies)
- Tony Mills (Apprentice Manager, Fujifilm Diosynth Biotechnologies)
- Abigail Mussard (Science Manufacturing Technician Apprentice, CPI)

Stress in the workplace

Stress Awareness Day was on 1 November.

To mark Stress Awareness Day on 1
November as part of International
Stress Awareness Week (30 October – 5
November) with theme of 'Beyond Stress
Management: From Stigma to Solutions',
Acas has published guidance and
support to manage work-related stress
and promote positive mental health and
wellbeing at work as part of their Stress at
Work Toolkit. The following link has further
guidance and resources on handling
reasonable adjustments for mental health
at work.



Flexible working

In 2024 new legislation will be enacted on flexible working, with an ACAS updated code of practice. New guidance on this is currently being consulted on. The guidance covers:

- Working from home and hybrid working
- · Making a flexible working request
- · Responding to a flexible working request
- Flexible working policy template

There is a **Toolkit** with information. CIA will be responding to the guidance consultation.



Industrial action in the UK – is it losing impact?

A recent ONS survey covered the impact of industrial action on people. When asked about any effect from industrial action in the past month, the most commonly reported effects were; not being able to travel for holiday or leisure purposes (9%), having to spend more money on travel (8%), and being unable to take part in leisure activities (7%); however, two thirds of adults (66%) said they had not been affected by industrial action in the survey period.



The spread of competition law

As members will be aware earlier this year we introduced a new Competition Law Compliance Policy to ensure we were not in breach of the legal position when it comes to companies in the sector exchanging information. It is a vital part of the work of trade associations that member companies can swap good practice where they want to do so. The legal framework has tightened recently. We recently advised companies of an investigation by the Competition and Markets Authority (CMA) investigation into possible anti-competitive conduct related to the supply of chemicals for use in construction. It was in HR where the challenge for us arose earlier this year. In our recent call HR colleagues discussed the following article Are HR professionals sharing too much information? (peoplemanagement. co.uk). One of the key parts is that where confidential information is exchanged in meetings between employers "HR professionals should be aware that, once confidential information is received, a company will be deemed to have acted on the information, even if in reality they have done nothing with it. The only way to avoid this is a 'noisy exit' by expressly rejecting the information, leaving the meeting or closing down the conversation and making sure this is recorded. In formal settings this should be in the minutes, while in informal meetings this should be recorded in contemporaneous notes, and good practice would include informing your compliance or legal team".

Economic

summary

Michela Borra

7908 897013



New Education and Employment Strategy Group Purpose

Our Education and Employment Strategy Group – led by Chair Mark Robinson, President of Global operations at Croda International Plc – have been working to set a future agenda. Members have developed a new, focused purpose to "Attract and retain the right talent for our industry". Our future meetings and communications will focus on this. The Group's next meeting is on 21 November.

Economic Update

Since July's issue of CIAMatters, the Office for National Statistics (ONS) released data overlooking the state of the economy in the second quarter and beginning of the third quarter, with notable publications on GDP, industry performance, inflation, and the labour market. The Bank of England met in August and September to reassess their monetary policy and, in their latest meeting. decided to hold interest rates at 5.25%.

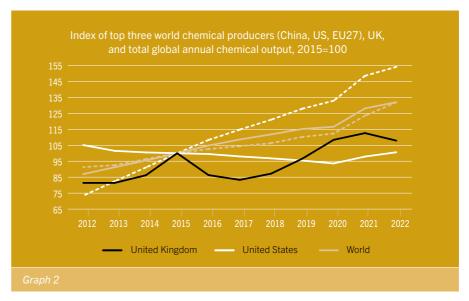
Throughout the summer, the ONS continued to publish data on GDP and output levels. In the graph 1 opposite on GDP and industrial production the black line represents GDP. That sharp fall in 2020 due to COVID-19 lockdowns caused a yearly contraction, and only in January 2020, the economy bounced back to pre-pandemic levels. A recent revision of the Blue Book uncovered that output in 2021 expanded by 8.5%, 0.9pp more than initial estimates suggested, and confirmed the 5.8% fall in 2020. Whilst the changes affected overall annual estimates, their effect on monthly and industry data is negligible. More recent data covering 2023 shows that in the first and second quarter the economy expanded by 0.1% and 0.2%, respectively, outperforming expectations of contractions. The main drivers of growth were relatively strong consumer spending. Production industries, in particular, after a severe contraction in May, expanded by 1.8% in June, resulting in a 0.7% quarterly expansion.

July's figures are less positive, with GDP falling by 0.5% due to contractions in service, production, and construction sectors. Our economist recognises industrial action and weakening demand as the main drivers for July's contraction.

As shown by the solid white line,

manufacturing expanded by 0.7% in the first

Monthly GDP, Manufacturing, Chemical, and Pharmaceutical Output — Manufacturing — Chemicals — Pharmaceuticals



suggest that through 2024, the sectors that will contract the most are the producers of intermediate goods as tight economic conditions incentivise businesses to maintain low stock levels.

Focusing on Chemical output, the gold line, in the first quarter of 2023, chemical production increased by 1.3% but contracted by 0.7% in the second one. While output contracted in both April and May, in June and July it expanded by 1.0% and 1.5%, respectively and in July it was 0.8% higher than pre-pandemic. Despite two months of expansion, forecasts and industry feeling remain pessimistic regarding the end of 2023 and the first half of 2024.

The white dotted line shows pharmaceutical output. In the second guarter of the year, it expanded by 3.1% after a 4.7% contraction in the previous quarter, but thanks to the increased demand during the pandemic it remains 31.2% above pre-pandemic levels. Monthly output

contracted by 1.9% in July, after June's 7.8% expansion. Due to the nature of demand for pharmaceutical goods and its dependence on the NHS we expect it to keep outperforming chemical output and exhibiting highly volatile production levels.

Lastly, on chemical production, the above graph shows the evolution of chemical output from 2012 to 2022 with 2015 as the base year – meaning that anything below 100 indicates a contraction from 2015's levels and anything above 100 an expansion.

Graph 2 shows that Chinese, Global and European production of chemicals have steadily increased in the last 10 years. America's production levels – **solid white** line - contracted from 2012 to 2020 but after the pandemic, they have started increasing and are now just slightly below pre-pandemic levels. UK chemical production, represented by the **black line**, is more volatile with peaks and contractions. After a peak in 2015 and subsequent drop in 2016 and 2017, chemical

production increased steadily from 2018 to 2021, but dropped by 4.7% in 2022.

One of the key issues for the global economy since the end of COVID-19 lockdowns is inflation, and recent data from the ONS show that inflation remains a core issue for the UK. In the first quarter of 2023, headline Consumer Price Index (CPI) inflation averaged at 10.2%. In the second guarter, it slowed to 8.4% but remained above the predicted 8.2% and 6.9% by the Bank of England and the Office for Budget Responsibility, respectively. Recent figures indicate that CPI was 6.8% in July and 6.7% in August, with August's slowdown resulting from more stable CORE inflation. Whilst CPI might decelerate because of lower energy prices, which are highly volatile, CORE inflation is only altered as goods and services prices decrease thus, it better shows the effectiveness of monetary policy and indicates future price levels. For this reason, the Bank of England Monetary Committee is considering to establish interest rates.

Retail Price Index (RPI) inflation, which accounts for the change in price of retail goods and services, was 11.1% in Q2, but it decelerated to 9.0% in July 2023 and 9.1% in August 2023.

To aid the deterioration of inflation since December 2021, the BoE raised interest rates to disincentivise economic activity and keep prices under control. In August, interest rates were raised to the 15-year high of 5.25%, and in September the Monetary Policy Committee decided to maintain them until November. The latest decision is likely to have resulted from July's and August's better-thanexpected inflation levels and the deceleration of August's CORE inflation. Nevertheless, interest rates are extremely high by historical standards and are decreasing production levels of capital-intensive industries, such as manufacturing. For this reason, forecasters expect production sectors to underperform the general economy, especially producers of intermediate goods. High cost of borrowing and uncertain demand -due to increased cost of living and changes in spending trendsdisincentivise manufacturers to hold large stocks or put forward large investments. Destocking impacts the demand for intermediate goods manufacturers, reducing their production levels and selling prices, creating a deflationary trend for production inputs and outputs.

Input and Output price deflation is visible for general producers as well as chemical producers. Input Producer Price Index (PPI) in August fell by 2.3%, indicating that inputs were cheaper in August 2023 than in August

quarter of 2020 and by 1.6% in the second one, but -similarly to the rest of the economyit contracted by 0.7% in July. The main drivers of July's contraction were Rubber and Plastic production, Automotive and Pharmaceutical sectors. Nevertheless, current global trends

2022. Output PPI also deflated in August but by 0.4%. Since input prices fell quicker than output prices, production likely contracted more than sales as suppliers of inputs, faced by low demand, decreased their prices more than producers of finished goods.

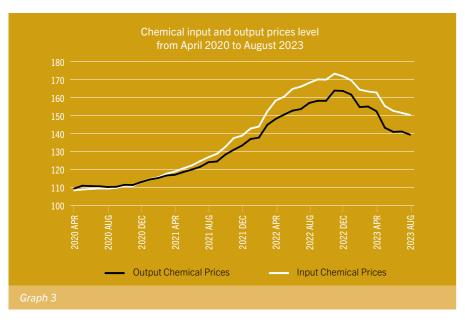
In the chemical sector, both input and output prices have been falling for four consecutive months, with output prices falling quicker than input prices on average. In the second quarter, average input prices fell by 2.6% and output prices by 3.2%. In July, input and output prices fell by 8.8% and 8.1%, respectively and by 10.6% and 11.3% in August 2023.

In the graph below, the **white line** shows the level of chemical input prices, whilst the **black** one shows chemical output prices. As indicated by the lines, since December 2020, chemical inputs have been more expensive than chemical outputs, putting a toll on margins. Despite the gap narrowing towards the beginning of this year, in Q2 chemical prices dropped quicker than input prices, and now input prices are 7.9% higher than output prices. Despite prices falling, both input and output prices remain roughly three times higher than pre-pandemic. As mentioned above, deflationary trends are positive as they indicate lowering production costs but are also the symptom of low demand and production levels.

The last relevant publication covers the labour market. The ONS report suggests that despite signs of easing, the labour market remains tight by historical standards due to Brexit, soaring inflation, growing inactivity rates, and economic uncertainty. In the three months to August, vacancies decreased by 64,000 from March to May 2023. The manufacturing sector accounted for 1,000 of them. Employment rate in July 2023 was 75.5%, 1.1pp lower than pre-pandemic. Since the first quarter of the year, redundancy rates in the manufacturing sector remained around 3.5 indicating that operating conditions remain tight for manufactures.

Tight labour market conditions and pressure from Unions, animated by the cost-of-living crisis, are pushing up pay across the economy. In the year May to July 2023, regular pay (excluding bonuses) in the chemical sector increased by 3.9%, while total pay (including bonuses) increased by 3.1% but, due to the high levels of inflation, these resulted in real terms pay cuts of 2.5% and 3.3% respectively. Regular pay increasing more than total pay suggests that, compared to the beginning of the year – where total pay was growing quicker than regular pay – there are less one-off payments.

The Q2 CIA Business Survey results were more or less in line with the trends highlighted by the ONS. Numerous members experienced



falling sales and production levels for the fourth consecutive quarter due to tough operating conditions and weakening demand. Almost a year of diminishing margins led to reductions in employee numbers, R&D spending, and Business Investment.

Since last year, supply chains have started to ease: inflation slowing down and lower production levels reduced demand for inputs, lowering their price and delivery time. In Q2, energy and raw material costs started to stabilise but remain three times higher than pre-pandemic and a fifth of members expect them to bounce back up through winter. The biggest challenge last quarter was weakening demand, with over 80% of members expecting it to worsen as the year progresses. The other issues that are expected to worsen are labour force-related, labour cost prices, labour shortages, and skills shortages.

CIA Quarterly Economic Reports

At the CIA, we undertake a quarterly business survey of our membership. The data collected, and official data provided by the Office for National Statistics, are then presented back to members for further analysis. A comprehensive economic report is then published, looking in detail at the topics discussed by members, in addition to the economic performance of the prior quarter and forecasts for the future. Read past reports here.







Make the most of your membership

As a CIA member you receive all the benefits on offer and can be sure that you will remain legal, competitive and truly sustainable.

Discover your benefits...

Advice and guidance



- Providing business support
- Technical application of legal requirements
- Sharing good practice



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Economy

CIA Events

CIA Annual Dinner 16 November, London

The legendary CIA Annual Dinner at the Grosvenor House on Park Lane come and join 800 industry leaders at this showcase event on 16 November.



Writing Procedures (Standard Operating Procedures) – Current Best Practices – Safer, productive and reliable operations

23rd November

Events calendar

See www.cia.org.uk/Training-and-events/

Training-courses for full list of events

CIA events

events@cia.org.uk

REACHReady events

020 7901 1443

events@reachready.co.uk

020 7834 3399

Work Instructions, Standard Operating Procedures, Job Detail Sheets, or whatever you may call procedures, are critical documents for safely operating a process plant.

This course will take you through the key principles behind procedures to lay the foundation for a coherent philosophy for your document structures.

REACHReady Events

Managing REACH for suppliers of articles: How compliant are you? 12 & 13 December (mornings only)

Aimed at business managers and regulatory specialists in companies that supply articles within the UK and EU. Relevant to companies working through the requirements in the REACH Regulation for finished goods, sub-assemblies and components, and also to importers and producers of articles who are dealing with supply chain communication obligations and verifying product compliance.

Exemptions – Free webinar 24 January 2024 (09.30)

This free one-hour webinar will aim to review exemptions and scenarios where registrants can benefit from reduced information requirements under the REACH regulations in both the EU and UK, and highlight the parallel legislation companies will need to comply with in order to benefit.

REACH – The Basics 20 & 21 March 2024 (mornings only)

REACHReady's most popular workshop. Ideal for anyone who needs to understand more about their obligations under the UK and EU REACH Regulations, and also of interest to suppliers of substances and mixtures who are looking to support their EU and UK customers on REACH.

REACH: Current Landscape and Emerging Issues

25 April 2024 — ***HOLD THE DATE***

REACHReady's popular annual event, held jointly with the Chemical Industries Association. The "must attend" virtual event for anyone within regulatory affairs and/or product stewardship working in the chemical and downstream sectors. Particularly relevant to anyone complying with REACH (UK and/or EU), horizonscanning for potential regulatory threats, opportunities and future developments. Register your interest to hear first hand when booking is open by emailing events@reachready.co.uk.

Make our team

part of your

team!

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Annual Dinner 16 November 2023

Grosvenor House Hotel, Park Lane, London W1

The CIA's legendary flagship dinner is one of the most prestigious in the business calendar and is an occasion for celebration, networking and great entertainment. The evening provides an excellent opportunity to entertain – in person – your valued clients, network with potential customers and generate new business contacts.

Senior representatives of chemical companies and influential figures from industry, government, stakeholders, the city and the news media will all be in attendance.

The Dinner will take place on 16 November 2023 at the Grosvenor House Hotel in London's Park Lane. Tickets are reserved on a first-come-first served basis and you are encouraged to book early to avoid disappointment.

Don't miss out on the industry event of the year. Tickets on sale mid-July.

For more information and booking, please visit:

www.ciaannualdinner.co.uk



For further details please contact: John Bastock, CIA Events, c/o Mint Events Ltd, Riverside, Mountbatten Way, Congleton, Cheshire, CW12 1DY Tel: +44 (0)1260 765865 Email: dinner@cia.org.uk