

Chemistry for a sustainable future

By 2030, the world's population will have reached 8.5 billion; 60% of people will live in cities; there will be 2 billion cars on the road; the demand for food and water will have increased by 40% and we will need 50% more primary energy. These are huge challenges – especially when set alongside the commitment to tackle climate change through ambitious decarbonisation – but they are also enormous opportunities that can only be embraced by manufacturing nations underpinned by strong and competitive chemical and chemistry-using industries. If the UK is serious about taking a global leadership position – both in terms of responsibility and opportunity opposite these big societal challenges – then we believe that is only possible through a strong and effective partnership with business... which begins here at home.

Transformational Co-operation between Government and the UK Chemical Industry

Over recent years, Government has offered a range of initiatives and support measures aimed at securing long-term economic growth based on increased international competitiveness and productivity. At the heart of this approach has been a commitment to an R&D/innovation-fuelled industrial strategy. Within that framework, the chemical and chemistry-using industries have been working in partnership with Government, through the Chemistry Council, to propose a series of transformational projects to reduce carbon, commercialise plastic waste and supply key materials for electric vehicle battery technology. From Teesside to Runcorn, the Humber Bank to Grangemouth, these are transformational initiatives that can strengthen and build advanced manufacturing supply chains, and secure highly skilled and well rewarded jobs all across the UK.

As we leave the European Union, with our future trading relationship still to be determined, there has never been a more critical time for the UK chemical industry and Government, alongside all key stakeholders including the Chemical Industries Association (CIA), to work together to deliver chemistry-enabled growth over the next decade. Let's finish the job we have already started and help grow our economy, protect the environment and improve people's everyday lives.



The Chemical Industry and Brexit

On 23 June 2016 the UK voted to leave the European Union. We are still members. The Chemical Industries Association is politically neutral. Whether we should leave the EU or stay is a matter for the people. However the uncertainty over leaving or remaining affects businesses. The EU is our biggest trading partner – 54% of our exports and 73% of our imports are with the EU. Investment decisions are at best paused and, worse, those that could have been secured for the UK go elsewhere. An early decision for whoever is in Government after the general election must be to clarify what happens next and by when.

The chemical industry in the UK and in Europe needs a relationship with the European Union that delivers:

- Frictionless, free trade
- Regulatory consistency and alignment, and
- Access to skilled people.

Policy and Regulation

The chemical industry is, rightly, a highly regulated sector, helping to give confidence to its workforce, local communities, consumers and society at large. As we consider our new relationship with the EU and the rest of the world, we would urge Government to:

- Design policy solutions that strike the right balance between risk and hazard, through a reliance on sound scientific assessment and robust evidence.
- Require that policy is coordinated across departments and, where possible, across the United Kingdom, to ensure environmental, health, social and economic impacts are taken into consideration.
- Embrace the 'innovation principle' in mainstream policymaking, ensuring that the impact on innovation is fully assessed and addressed whenever policy or regulatory decisions are being taken.
- Ensure that the recognised expertise and experience of our key regulatory bodies, influential in securing wellbalanced European and international regulatory decisions, isn't compromised by resource constraints.

On specific policy areas we want to work with Government and other stakeholders to deliver:



Climate change – a fair and balanced transition towards decarbonisation

- Our industry has improved its own energy efficiency by 42% since 1990 whilst our products save 2 tonnes of greenhouse gas (GHG) emissions down the supply chains in sectors such as automotive, agriculture and household for every 1 tonne of GHG we emit
- To achieve net zero and UK economic growth it is now critical Government looks towards a fair and cost-effective approach to decarbonisation that protects UK businesses' international competitiveness and reduces global carbon emissions.
- This includes an urgent reform and simplification of climate change policies including reviewing UK carbon pricing to address the risk of production, investment and carbon leakage, and abolishing the UK-only Carbon Price Support which fundamentally distorts a level playing field for the UK

- manufacturing industry.
- A holistic approach on carbon monitoring and target setting
 that includes UK consumption emissions is needed to create
 a market for low carbon goods. This will ensure the emission
 reductions our industry has made is not lost through industry
 relocating elsewhere and subsequently UK consumers
 importing more carbon intensive goods.
- Support implementation of the Chemical Sector Industrial
 Decarbonisation and Energy Efficiency Roadmap Action
 Plan. This includes enabling investment in energy efficient
 technological solutions such as industrial carbon capture and
 use, or storage, and the use of hydrogen to decarbonise heat
 and transport.



Innovation

The Chemistry Council is the joint industry/Government sector council for our industry. Industry members have recently submitted a proposal under the current Government's industrial strategy. That proposal is a 5-year, environment-friendly partnership with Government, based on innovation and the creation of thousands of new jobs, with the majority of these in areas of the country where they are most needed. These transformational projects,

which will require co-investment by business and Government, are addressing our decarbonisation and sustainability challenges. New facilities – polymer recycling hubs in the north east and north west, and a bio-ethylene oxide facility on Teesside – will help strengthen and build modern advanced supply chains. The next Government should work with us on making this happen.



Educations and skills

Throughout education there are science teachers who work hard to deliver a challenging topic. Investment in science teaching should be increased under a clear and understandable national strategy that makes school children more aware of the importance of science in their lives and the opportunities available. We are a large provider of apprenticeships and are strongly urging for a reform of the current apprenticeship levy which, through its lack

of transparency and user friendliness, is successfully doing the opposite of its purpose, to increase the level of apprenticeships.

We want to see a Government skills policy for our sector that recognises the needs of chemical companies and bridges a national gap from education to industry with necessary associated funding.



Energy costs and markets

- Industry is materially disadvantaged by high UK energy prices with Government's own data showing that we are paying up to 65% more for our electricity than our competitors across Europe, significantly more for gas supplies than US businesses, and higher network costs. The additional cost of incentivising new nuclear build and related renewable sources of energy has been laid at the door of industries such as ourselves and addressing this will, in our view, immediately improve the ability of our businesses to compete more vigorously around the world and help accelerate the delivery of global decarbonisation, benefitting our society and the environment.
- We need connected energy markets to work in an integrated and competitive way. Energy policy should be market based,

- free from interference in price setting, be renewable but technology neutral.
- A secure and affordable balance needs to be struck to address the high electricity prices faced by consumers.
 Sources of low carbon energy should be developed at least cost to consumers and compete equitably for market share.
- Energy sources and markets should be connected in a costeffective way and work freely while avoiding policy distortions.
 Network costs should be reduced to the EU average.
- As a transition to a zero carbon economy we fully support an increase in domestic natural gas production as it provides an environmentally friendly and lower carbon alternative than importing gas cryogenically frozen and transported around the globe.



International trade

The chemical industry is the UK's largest exporter of manufactured goods. As we leave the European Union, a number of issues need to be addressed:

- The continuation of existing FTAs must be delivered. Key
 export markets such as Canada and Japan have indicated that
 they are not willing to roll over existing EU text but plan to
 review agreements after considering the detail of the future
 UK/EU relationship.
- The UK will look to introduce a sovereign Trade Remedies regime following EU exit. We look to work with Government
- to ensure that importers respect global trade rules and where they don't UK producers must have confidence that the UK authority will quickly impose strong measures that insulate UK workers and employers against harm.
- The UK sector is a strong partner in the European chemical sector and products 'cumulate' value as the finished product is developed. The value of the UK economic input must be viewed as an integral part of EU value for the purpose of conferring economic origin. Failure to do so will likely see UK content stripped out of European supply chains.



Regional supply chains

The UK has traditionally had strong integrated supply chains across industry. However, these have become fragmented due to a loss of key assets and this has resulted in supply chains that are inefficient both from a cost and a carbon perspective due to the need to import and export multiple times to produce a finished product. We are based around four critical areas of the country:

- Teesside in the north east
- Ellesmere Port, Runcorn and Rocksavage in the north west
- Grangemouth in Scotland
- Yorkshire and Humber

The regional clusters are supported by industry-sponsored regional groups such as NEPIC (North East of England Process Industry Cluster), CSS (Chemical Sciences Scotland), CNW (Chemicals Northwest) and CATCH/YCF (Your Connected Future). Projects addressing polymer recycling and bio-ethylene oxide, regional economic growth and productivity could be enhanced and driven by modest funding of the regional cluster bodies. These four regional clusters have significant assets and capabilities that could be further enhanced to support growth in industry and jobs, with a centralised function in support to ensure that potential investors are signposted to the most appropriate region for their investment.

About the UK Chemical Industry



The chemical and pharmaceutical industry adds £19.2 billion of value to the UK economy every year from total annual turnover of £55.5 billion.



In addition to gross value added, the sector also contributes to the UK economy in its position at the head of many supply chains within manufacturing and its employment of a well remunerated, high-skilled workforce. We support **500,000 jobs** both directly and indirectly, chemical manufacturing adds **£10.3 billion** in gross value added annually and pharmaceutical manufacturing **£8.9 billion**.



The wider chemical and pharmaceutical sector (manufacturing plus distribution) is the largest exporter of manufactured goods with annual exports of over **£55.8 billion**.



63% of companies in the sector export what they make to the world, the highest proportion of any goods manufacturing sector in the UK economy. 54% of our exports go to the European Union and 73% of our imports and raw materials come from the European Union.



The sector's level of business investment is £4.6 billion, while the expenditure on research & development is £5.4 billion (automotive £3.8 billion and aerospace £1.7 billion).



The products and technologies of the chemical industry are essential parts of medicines, food & drink, telecommunications, energy-saving, IT, clothing and much more.



For every tonne of greenhouse gas (GHG) emitted, our products and technologies enable over **2 tonnes** of GHG emissions savings.

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