



# NEPIC Response to HM Government Freeports Consultation



on behalf of the Integrated Chemical  
Industry on Teesside | July 2020

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# Contents

01	Executive Summary	3
02	Introduction	5
03	About NEPIC	7
04	Teesside's Integrated Chemical Industry	8
05	Consulting the Integrated Chemical Industry on Teesside	11
06	Protecting the Foundation Blocks of UK Manufacturing	15
07	Opportunities for Teesside's Integrated Chemical Industry	17
08	Consultation Feedback	
8.1	Customs Advantages	19
8.2	Tax Advantages	23
8.3	Planning Advantages	24
8.4	Economic Regeneration	25
8.5	Hotbed for Innovation	27
8.6	Additional Policy Considerations	30

# 01

## Executive Summary

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NEPIC, the North East Process Industry Cluster, is a membership organisation that represents the chemical-processing sector, and associated supply chains, in the North East of England. By supporting the needs and interests of the sector, we work to ensure industry in this region thrives – enabling investment, shaping policy, driving innovation and providing a vibrant and engaged network that will create jobs and opportunities long into the future.

NEPIC is a not-for-profit, non-political company that works with representatives of all parties. NEPIC does not form political views on behalf of its members; we simply state the facts and communicate the collective views and needs on their behalf.

This report is not intended to be a detailed economic assessment, rather a high level feedback on the Government's Freeports Consultation: Boosting Trade, Jobs and Investment Across the UK. It is based on interviews with senior executives from sixteen NEPIC member companies. These companies are mostly located in the existing chemical parks clustered around the river Tees. The majority represent large multinational manufacturers, however, significant service providers inputted also.

The views in this report are those of these companies.

Questioning was based on the main chapter topics from the consultation document: Customs, Tax, Planning, Regeneration, Innovation and Additional Policy Considerations.

The feedback about a potential Freeport from the integrated chemical industry on Teesside was overwhelmingly positive. All members consulted felt it could have the effect of helping them survive, invest and grow. It must be remembered that most of the companies interviewed have alternative sites globally that they can use, and invest in, depending upon relative, competitive business environments.

A number of manufactures emphasized that innovation was important in increasing productivity and introducing new products, and that potential enhanced R&D tax credits would be of great benefit to their businesses.

Most respondents felt that the customs arrangements could be positive in mitigating the UK's departure from the European Union customs area, in particular, if trade will be conducted under World Trade Organisation (WTO) tariffs.

Furthermore, most saw the potential of a more favorable tax regime to catalyse the re-establishment of lost supply chains, and to develop new ones close to them on existing chemical parks. A number of companies also described significant investment plans on their sites that would be more likely approved if a Freezone was established.

It was the unanimous view of the executives that to maximize the benefit to their businesses, the Freeport area should include the existing chemical parks of Wilton International, Seal Sands, North Tees and Billingham. It was also indicated that the Freeport operator should be independent without commercial interests in the port operation.

NEPIC strongly believes that a freezone on Teesside based on a Flexible Customs Model, which protects and catalyses the growth of the Teesside process sector, will deliver against Government's vision for innovation hubs, the boosting of global trade, the attraction of inward investment, an increase in productivity, and secure the long term success of the chemical manufacturing industry that sits at the heart of the Tees Valley.

# 02

## Introduction

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The following report provides a high-level response to the Government's Freeports Consultation: Boosting Trade, Jobs and Investment Across the UK on behalf of the integrated chemical-processing businesses located in the Tees Valley region. It is not intended as a detailed economic assessment.

This report is based on the following consultation exercise:

- Stage 1: Freeports Consultation Roundtable Session, April 2020
- Stage 2: Consultative interviews with chemical-process sector manufacturers and supporting businesses, May-June 2020

Consultative interviews were undertaken with senior executives from sixteen major chemical-processing companies all located in the existing chemical parks clustered around the river Tees. Those consulted are mostly large-scale, multinational manufacturers but also included major service providers integral to this highly integrated sector.

Sixteen NEPIC members were interviewed, including:

- Alpek Polyester
- BOC
- ConocoPhillips
- Exwold Technology
- FUJIFILM Diosynth Biotechnologies
- Inter Terminals
- Lianhetech Seal Sands
- Lucite International
- Navigator Terminals
- SABIC UK
- Sembcorp UK
- Seqens Custom Specialties
- SNF Oil & Gas

Further information on each of the companies that participated in stage 2 consultative interviews are available on page 11.

The views in this report are those of these member organisations.

*Further information on NEPIC can be found on page 7.*

Questioning was based on the main chapter topics from the consultation document: Customs, Tax, Planning, Regeneration, Innovation and Additional Policy Considerations. Consolidated consultation response overviews for each of the above-mentioned chapters can be found in Section 8 of this report.

This report also seeks to provide a broad overview and consideration of:

- Teesside's Integrated Chemical Industry
- Protecting the Foundation Blocks of UK Manufacturing
- Opportunities for Teesside's Integrated Chemical Industry



# 03

## About NEPIC

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NEPIC, the North East Process Industry Cluster, is a not-for-profit organisation that supports the needs and interests of the chemical-processing sector in the North East of England. Essentially, we exist to ensure industry in this region thrives – and that we have investments, innovations and a network that will create jobs and opportunities long into the future.

By working closely with member companies, we forge meaningful business relationships that allow us to identify opportunities, facilitate connections, promote collaboration and best practice sharing, and enable growth. We also work actively beyond our traditional stakeholder base, engaging with universities, research institutes and public bodies to leverage additional value for the sector.

We cover a broad sweep of chemistry focussed industries including petrochemicals, polymers & materials, fine & speciality chemicals, minerals, pharmaceuticals, biotechnology and renewables – and with our members and industry leads, work to build upon the already powerful industrial base located here to make this region one of the most competitive and successful chemical-processing locations in Europe.

Formed in 2004, NEPIC was the result of the merger of two industry bodies – the Teesside Chemical Initiative, who represented the heavy base chemical in the south of the region, and the P&S Cluster who worked with the pharmaceutical and life science businesses that were predominately based towards the north.

Steered by Michael Porter's theory of clustering for competitive advantage, our remit was clear – reconnect the fragmented industrial sectors – a result of ICI's exit from the region in the late 90's – and create an industrial powerhouse to rival all other global locations.

A major strength of the cluster is the level of engagement with senior representatives within each of our participating member organisations. NEPIC is owned by its member companies and led-by-industry via a strong Board and Leadership Council, which is chaired by Mark Kenrick and led by chief executive, Philip Aldridge.

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# 04

## Teesside's Integrated Chemical Industry

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### Sector Highlights

- 50 per cent of UK foundation chemicals are manufactured on Teesside
- 33 per cent of UK pharmaceuticals are manufactured in the North East
- Gross Value Added to the UK economy totals £843 million
- The sector employs 7,600 people across 230 businesses
- The Tees Valley area boasts a process, chemical and energy GVA per FTE of £110,950
- 38% of all process, chemical & energy GVA is generated in the North East
- Chemicals and energy have supply chain implications for 90% of UK manufacturing
- We are one of only 2 regions in the UK to have a net trade surplus
- We export £3.5 billion of product verses £2 billion of imports
- Two-thirds of exports go to the European Union
- The sector is dominated by overseas investors and large multinationals

Teesside's process, chemical and energy sector is worth an estimated £843 million (GVA) to the UK economy. We are home to the single largest cluster of process, chemicals and energy companies anywhere in the UK, and the second largest in the whole of Europe.

Fifty per cent of UK foundation chemicals are manufactured on Teesside, employing 7,600 people locally and many more through its supply chain. It is estimated that 32,000 jobs within Teesside's downstream chemical-using industries – including healthcare, electronics, automotive and textiles – rely on the continued success of the sector.

The sector generates a high value add per employee. The Tees Valley area boasts a process, chemical and energy GVA per FTE of £110,950. This figure is 12% higher than Northern Powerhouse productivity and nearly double the average GVA per FTE produced across all sectors in the Tees Valley area.

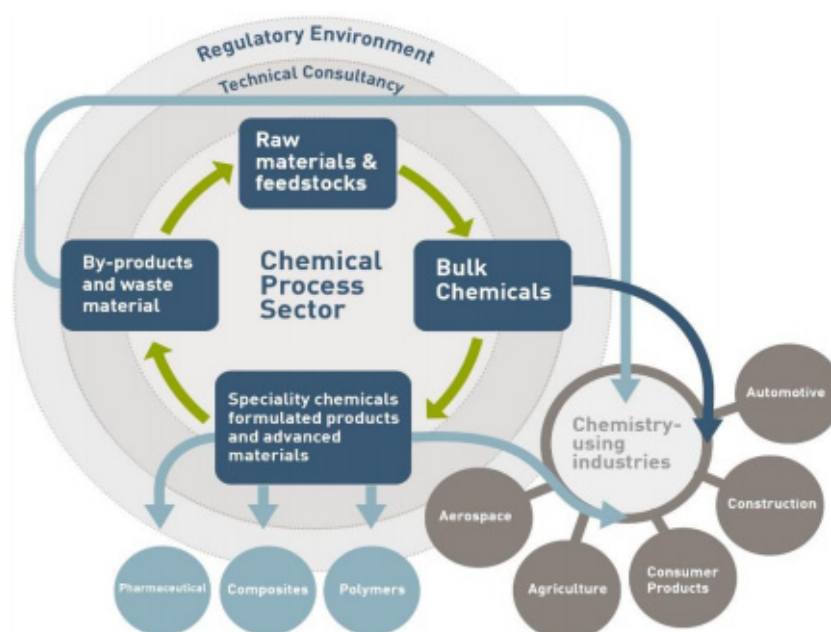
The process, chemical and energy sector has been defined by the Tees Valley Combined Authority as the aggregation of a number of sub-sectors across manufacturing and utilities, and is identified as being particularly important, defining the make-up of the Tees Valley economy and its industrial heritage.



Driven by the presence of unique assets and natural resources, the sector is of prime importance to the Tees Valley and wider national economy. Within the process, chemical and energy sector sits Petrochemicals; Polymers; Materials: Primary production and secondary processing; Energy including nuclear; Pharmaceuticals and Biotechnology.

The UK's process and chemistry reliant industries can be split into two categories: 'upstream', which are the chemistry makers, and 'downstream' that are the chemistry users. The chemicals, process and energy sector is an enabling industry, helping provide technological solutions to many challenges faced by other parts of the economy. It underpins sustainability in downstream industries such as healthcare, electronics, automotive and textiles.

The process, chemical and energy sector is one of the most productive sectors in the Tees Valley accounting for around 7% of total GVA produced, despite only accounting for 3% of the total workforce. However, the true importance of the sector is only recognised when the downstream impacts are fully considered, i.e. chemicals and energy have supply chain implications for 90% of UK manufacturing. A more productive process, chemical and energy sector has disproportionate benefits to the wider UK economy.



**Figure 4.1: Illustrating the relationship between the Process, Chemical & Energy sector and the wider economy** (Source: TVCA PCE Section Action Plan, 2018)

Teesside industry, which is dominated by overseas investors and large multinationals, is highly integrated. One manufacturer's product becomes the raw material of another.

Chemical parks situated in the Tees valley, such as the Wilton International site, allow it to be ideally placed to attract additional chemical investors. It has large amounts of land and offers many services for industry such as security, energy, steam, various gas supplies, an array of base chemicals, etc., all of which create a 'plug and play' environment. This integrated nature also encompasses the chemical parks north of the river Tees at Billingham, North Tees and Seal Sands, and in time will also involve the nascent South Tees Development Corporation site.



# 05

## Consulting the Integrated Chemical Industry on Teesside

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Consultative interviews were undertaken with senior executives from sixteen major chemical-processing companies, the majority of which are located in the existing chemical parks clustered around the river Tees.

Those consulted are mostly large-scale, multinational manufacturers but also included major service providers integral to this highly integrated sector.

The views in this report are those of the organisations detailed below.

### **Alpek Polyester**

Alpek is a leading petrochemical company in the Americas, operating two business segments: Polyester (PTA, PET and polyester fibres), and Plastics & Chemicals (polypropylene, EPS, caprolactam, and other specialty and industrial chemicals). Alpek is a leading producer of PTA and PET worldwide, the largest expandable polystyrene manufacturer in America, and the only producer of caprolactam in Mexico. Alpek also operates one of the largest polypropylene facilities in North America. Alpek is a publicly traded company listed on the Mexican Stock Exchange and trades under the ticker symbol ALPEK.

### **BOC**

BOC delivers state-of-the-art gas processing solutions to support customer expansion, efficiency improvements and emissions reductions throughout the UK and Ireland. In Teesside BOC operates a major industrial gas pipeline grid supplying hydrogen, oxygen and nitrogen to the region's leading industrial companies. BOC is part of The Linde Group, one the world's leading industrial gases companies with over 65,000 employees in more than 100 countries worldwide. The Linde Group is also at the forefront of technology development associated with CCUS, and development of green Hydrogen applications throughout the world. The Linde Group's vision is "Making our world more productive".

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### **ConocoPhillips**

The Teesside operations of ConocoPhillips processes, stores and ships crude oil and natural gas liquids (NGLs) received by pipeline from the Ekofisk area. Subsequent developments have led to additional production being added from fields in both the Norwegian and UK sectors of the North Sea, including NGLs being landed via the CATS pipeline. The facility originally constructed in 1974 is undergoing a significant amount of investment to secure production beyond 2050. As a safe, consistent and cost-effective operator with an excellent record of reliability, their Teesside operations are committed to continual improvement in the delivery of quality products to meet all customer requirements and schedules.

### **Exwold Technology**

Exwold Technology is a Contract Processing & Formulation company providing trusted services to major multinational companies around the world. Compaction, impregnation and coating, blending, milling and classification are included in our wide-ranging portfolio of powder and granule processing technologies. We are internationally recognised specialists in the formulation and supply of low-pressure extruded granule products primarily for the agrochemical industry. As a progressive, growing company, building strong & long-term partnerships with our clients is the key to our success. The company operates from five sites in Tees Valley in the UK employing over 100 people.

### **FUJIFILM Diosynth Biotechnologies**

FUJIFILM Diosynth Biotechnologies is an industry leading biologics contract manufacturing organisation with North East locations in Billingham and Wilton, United Kingdom. FUJIFILM Diosynth Biotechnologies has extensive experience in the development and manufacturing of recombinant proteins, vaccines, monoclonal antibodies, among other large molecules expressed in a wide array of microbial mammalian and insect systems. The company offers a comprehensive list of services from cell line and strain development to process development, analytical development, clinical and commercial manufacturing. The Billingham site is FDA-approved for the production of commercial products.

### **Inter Terminals**

Inter Terminals is one of the largest independent bulk liquid storage providers in Northern Europe, operating twenty-three terminals across 6 countries. With a combined storage capacity of c. 5.8 million m<sup>3</sup>, the terminals offer storage and distribution facilities for a comprehensive range of products for the oil and chemical markets. In the UK, facilities occupy strategic locations at Immingham, Teesside and Tyneside, with the ability to handle hazardous and non-hazardous liquids including oils, chemicals, biofuels and waste oils.

### **Lianhetechn Seal Sands**

Lianhetechn Seal Sands is a leading European contract manufacturer of high-quality fine chemicals for use in the Crop Protection, Pharmaceutical and Performance chemicals markets. Established in 1977 and operating continuously from their Seal Sands site since 1984, they have over 40 years of contract manufacturing experience. Previously known as Fine Organics Limited, the site was acquired by Lianhe Chemical Technology (Lianhetechn) in June 2017.

### **Lucite International UK**

Lucite International is the Global Leader in Acrylic based products with a strong focus on innovation and development. Committed to Safety and Health in the workplace and dedicated to preserving the environment and helping the local community. The Cassel Site at Billingham is the largest within the company and manufactures both the key raw materials for further processing within the company, and finished product for sale to external market customers. Main products manufactured on site are Methyl Methacrylate (MMA), Methacrylic Acid (MAA) & n-Butyl Methacrylate (nBMA). The company global R&D HQ is based at Wilton.

### **Navigator Terminals Seal Sands**

Navigator Terminals UK Limited is represented by four strategically located terminals making it one of the UK's largest independent tank terminal operators, specialising in the storage and handling of chemical, oil, liquid and gaseous products. Whilst the Seal Sands terminal is situated at the mouth of the River Tees and is fully integrated within the UK's largest chemical cluster, the North Tees terminal has the region's only deep-water jetty with modern rail distribution facilities. Both sites operate to Upper tier COMAH regulations conforming to the highest safety and quality standards.

### **SABIC UK Petrochemicals**

SABIC is one of the world's leading petrochemical companies, both in terms of sales and product diversity. The Company is headquartered in Riyadh, Saudi Arabia manufacturing on a global scale in the Americas, Europe, Middle East and Asia Pacific. SABIC has more than 33,000 employees worldwide and operates in around 50 countries. SABIC UK Petrochemicals Limited based on Teesside has major manufacturing assets at Wilton International (Olefins and Low Density Polyethylene) as well as extensive storage distribution and logistics facilities at North Tees.

### **Sembcorp UK**

Sembcorp UK generates and supplies energy to major industrial firms at the Wilton International Manufacturing site on Teesside. They deliver secure and reliable supplies of electrical power, steam, water and other services to customers from greener, more sustainable power generating facilities. Their utilities are of vital importance to manufacturers in a range of energy intensive process sectors on the site. The UK business also owns much of the land available for development at the 2000-acre Wilton International site. They are part of the Singapore-based Sembcorp Industries Group, which owns, operates and develops energy facilities around the world.

### **Seqens Custom Specialties**

Seqens Custom Specialties is one of Europe's largest providers of contract manufacturing services to the chemical industry. The company has specialised expertise in combined reaction and fractionation and has two sites on Teesside at Middlesbrough and Billingham. Industries served include, cosmetic ingredients, oil & gas, petrochemicals, fuel additives, agrochemicals, flavour & fragrances and plastic additives. Seqens produces a range of low toxicity solvents, including Estasol™ and Coasol™ which are used in paints and cleaning products.

### **SNF Oil & Gas**

SNF Oil and Gas Ltd, a subsidiary of the world's largest manufacturer of water-soluble polyacrylamides (flocculants and coagulants), is building a 500 ktpa manufacturing plant for emulsion grade polymers in Billingham. These products will be used in water treatment plants and within the oil and gas extraction markets.



# 06

## Protecting the Foundation Blocks of UK Manufacturing

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Chemistry-making and chemistry-using businesses are fundamental to the UK's manufacturing sector, providing the foundation blocks for a raft of everyday products we all rely upon. As an industry we must remain competitive to ensure our long-term future – and seek certainty in uncertain times.

Should the UK fail its foundation industries, we will jeopardise the downstream sectors that depend upon it. The chemical sector is the industry of industries. Tens of thousands of jobs within the downstream chemistry-using sectors – including healthcare, electronics, automotive and textiles – rely on its continued success.

The chemical and pharmaceutical industry adds £18 billion of value to the UK economy every year from a total annual turnover of more than £50 billion. In addition to gross value added, the sector contributes to the UK economy in its position at the head of many manufacturing supply chains. Furthermore, it employs a well remunerated, highly skilled workforce that supports 500,000 jobs both directly and indirectly.

The wider chemical and pharmaceutical sector is the largest exporter of manufactured goods. 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.

In addition, the sector's level of business investment totals £4.3 billion per annum, while expenditure on research & development stands at £5 billion. The products and technologies of the chemical industry are essential parts of medicines, food and drink, telecommunications, energy-saving, I.T, clothing and much more.

Looking to the future, if the UK is to realise its clean growth potential - in relation to hydrogen, carbon capture usage and storage, and plastics recycling – our foundation industries must be protected. Without them our vision for a circular economy is simply unachievable.







# 07

## Opportunities for Teesside's Integrated Chemical Industry

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NEPIC believe there are major opportunities for Teesside's chemical industry and associated supply chains to grow significantly, both organically through existing companies and assets, but also strategically via the attraction of inward investments.

If you consider a chemical park, such as the Wilton International site, it is ideally placed to attract additional chemical plants. Further to the large amounts of land available, it provides many services to industry such as security, energy, steam, various gas supplies and an array of base chemicals, all of which create a 'plug and play' environment that makes capital and revenue expenditure much lower than standalone facilities.

This integrated nature also encompasses the chemical parks north of the river Tees at Billingham, North Tees and Seal Sands, and in time will also involve the nascent South Tees Development Corporation (STDC) site. In fact, the proposal to build a gas-fired power station with Carbon Capture & Storage on the SDTC site will add to the integrated nature of the existing Teesside chemical industry. This new power station will be built with excess CCS capacity and the ability to harvest CO<sub>2</sub> from across the Teesside chemical parks, both north and south of the river.

Partly due to this integration, we have seen a number of significant investments in process plant assets in recent years including SABIC UK Petrochemicals' 'Cracker' modifications, the MGT power station, and recent takeover of PET manufacturer Lotte Chemical UK by Alpek Polyester. However, there is much greater potential than this; opportunities for companies to expand their operations and to attract new businesses onto our chemical parks.

There are several catalyzing factors to build on what currently exists to create a thriving, expanding and major wealth generating sector. In addition to a Freeport, subsequent interventions required include decarbonisation, a circular economy and supply chain development.

Deploying a CO<sub>2</sub> capture infrastructure for the Teesside chemical parks would clearly allow companies to produce 'green' products that will likely attract a significant premium in the marketplace. Helping companies deploy biotechnology to improve their process would also result in greener, less energy intensive processes.

Re-establishing lost supply chains and building supply chains of the future, especially those in the circular economy, is a challenge for individual companies to achieve alone. This will require a degree of state intervention to examine techno-economic models and pull disparate collaborators together to allow an entire supply chain to be created.

For example, Teesside is an ideal place to carry out plastics recycling for the whole of the UK, as the majority of the base chemicals for plastics manufacturing are made here. However, establishing the collection of plastics waste nationally is not something one company could accomplish alone.

In addition to the intrinsic advantages of an integrated chemical industry, decarbonisation and support to re-establish and re-shore supply chains, a freeport would add another layer of global competitive advantage to our existing chemical cluster. NEPIC sees the opportunity of a Teesside Freeport in this wider context and would urge Government to do the same.



# 08

## Consultation Feedback

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### 8.1 Customs Advantages

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#### Feedback Highlights

- Brexit process could have a significant impact on the free flow of goods into the region
- Most NEPIC companies trade with the European Union and many are integrated into European supply chains
- Freeport could shelter existing trading relationships from additional costs and regulation created by EU Exit, and potentially create competitive advantages
- Industry would benefit from all four proposed core customs and tariff benefits
- Due to the integrated nature of the Teesside chemical industry, most would need to be within the Freeport boundary to benefit from duty advantages
- Stringent measures already undertaken by chemical manufacturers could enable multiple chemical parks and manufacturing sites to be included as free trade zones
- The concept of simplified customs procedures was welcomed
- Some aspects of a Freeport already take place in the Teesside chemical industry, such as the use of Inward Processing Relief and bonded warehouses
- NEPIC supports HM Treasury's concept of a Flexible Customs Model

Freeports exist in many regions of the world to facilitate frictionless trade, enabling areas to establish, develop and maintain competitive trade arrangements which can deliver new investments and create jobs.

Brexit negotiations could have a significant impact on the free flow of goods into the region if, as it seems likely, it sees our departure from the EU Customs Union. This could result in any single shipment arriving to or departing from the UK requiring a Customs declaration, a change which will affect UK companies and HMRC alike.

Most NEPIC companies trade with the European Union and many are integrated into European supply chains. Departure from the Customs Union would mean that it is likely that many imports and exports from the EU will be subject to duty in the UK for the first time in over forty years.

A Freeport that utilises both physical and digital mechanisms to insulate trade from duties, and regulatory friction that could be caused by exiting the EU customs union, could deliver a positive economic impact for the region. It has the potential to shelter existing trading relationships and create competitive advantages for the future in attraction of further trade, investment and jobs.

NEPIC members see the potential benefit from all four core customs and tariff benefits proposed: Duty Suspension, Duty Inversion, Duty Exemption for re-exports and Simplified Customs Procedures.

A common factor for Teesside manufacturers is that two thirds to three quarters of raw materials and products are traded with the European Union. One company quoted 85% of trade with the EU. In the event of a Brexit deal that required UK businesses to pay duties at the level of WTO requirements, or otherwise, a Freeport would allow such duties to be deferred or mitigated and prevent the imposition of additional costs to businesses. Duties at the WTO level would adversely impact the economics of most manufacturing companies, with some potentially being severely affected. Given that these businesses are multinational, with the option of transferring production to other global sites, the implication is clear.

The protection of a Freeport would also likely unlock a number of large investments (£10millions to £100millions) that are currently on hold. The majority of NEPIC members also indicated that a Freeport could help in the event of a hard Brexit deal. Clearly, trade with the rest of the world would also be more cost effective if a Freeport could avoid tariffs too.

In some cases, chemical manufacturing companies import all their raw materials and export all their products, making them especially vulnerable to tariff changes. Tariffs on imported materials from the EU could be detrimental depending on the UK's [MFN tariff regime as published on 19<sup>th</sup> May 2020](#). In terms of products exported to the EU, in the event of a poor EU trade deal post Brexit, companies may experience WTO tariffs on the same basis as countries which don't have a trade deal with the EU, such as Kenya.

Some companies are already making use of Inward Processing Relief that is allowing them to avoid duties, however, it was stated that eliminating the need to apply for authorisation would be beneficial. Furthermore, several NEPIC members are avoiding duties through the use of bonded warehouses, and another explained that they would take advantage of being able to do the same under a Freeport arrangement.

Due to the integrated nature of the Teesside chemical industry, it is believed that most would need to be within the Freeport boundary for companies to benefit from these duty advantages. Most of the imported liquid raw materials are stored at North Tees before being transferred to the manufacturing plants on both sides of the river.



The concept of simplified customs procedures was welcomed by most companies. This was not only because it has the potential to ease bureaucracy, but also reduce delays on the import of expensive equipment and enable faster responses to overseas customers. However, there was skepticism as to whether the proposed procedures would be simpler than those currently in place.

One company also suggested that there was ambiguity in the proposals relating to the Freeport Consultation statement that 'the UK will seek to maintain high standards' as this is likely not compatible with the suggestion of 'a full range of regulatory flexibility', 'innovative technology to be trialed' and the obvious concerns around fraud.

The chemical industry in the UK has an exemplary safety record and bears comparison with any other industrialized nation. This is due to industry taking the design, maintenance and operation of its assets extremely seriously, coupled with the rigorous following of stringent regulations. Our industry is therefore confident that fraud, due to the misplacement of materials, is highly unlikely.

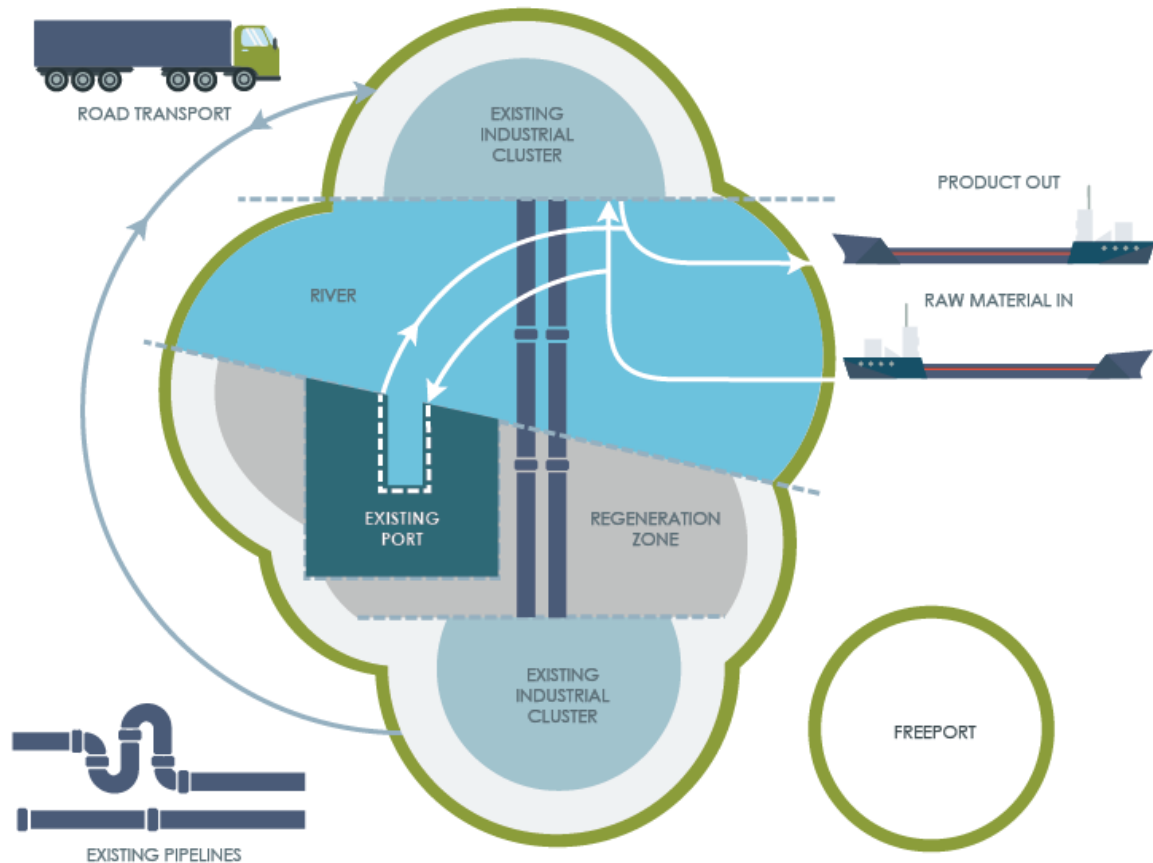


As part of this inherent safety culture, security on chemical parks is of the utmost priority and ensures they remain protected. Product transfer between sites is also highly controlled and often takes place via pipework. Existing infrastructure allows secure transfer to be achievable across multiple zones. This also incorporates extensive use of metering and measurement technology such as weighbridges.

Furthermore, very large quantities of ethanol are currently stored safely and securely north of the Tees in bonded warehouses. There have in the past been examples of materials being transferred from a bonded warehouse at North Tees to another bonded warehouse on the Wilton International site (south of the river Tees) with no safety or customs issues arising.

The stringent measures already undertaken by chemical manufacturers, with respect to metering, monitoring and the handling of feedstocks and finished products, could enable multiple chemical parks and manufacturing sites to be included as free trade zones as product can flow directly from and to the port zone where substances enter and leave the UK market.

HM Treasury has suggested it favors a 'Flexible Customs Model' where a Freeport could have multiple zones that are not necessarily contiguous. NEPIC regards such a model appropriate to Teesside, enabling a Freeport to encompass the chemical parks north and south of the river Tees, as well as the South Tees Development Corporation site.



**Figure 8.1: Flexible Customs Model** - Illustrating Teesside's existing integrated industrial clusters located north & south of the river Tees that sit alongside potential regeneration zones

## 8.2 Tax Advantages

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### Feedback Highlights

- An enterprise zone with tax benefits that incorporates enhanced capital allowances enabling the:
  - progression of multi-million-pound investment projects
  - attraction of new business to existing chemical parks
  - creation, and recreation, of more integrated supply chains
- Enhanced R&D tax credits to encourage additional expenditure
- Business rate discounts were welcomed, yet small in relation to the high rates users currently pay

Chapter 4 of the Government's Freeports consultation document concerns the potential tax advantages that a Freeport could provide.

Most companies commented favorably on the suggested “*enterprise zone tax benefits*” as stated in the Government’s Freeports consultation document. The main benefit communicated was related to the idea of enhanced capital allowances.

A number of companies described multi-million pound projects, in the £10s to £100s of millions, that they would like to progress to maintain the competitiveness of their business, increase capacity or build entire new assets, and said that that increased capital allowances would help unlock these investments.

We heard from one multinational that the investment in a new facility could be placed in the EU, or the USA, and that tax incentives could make the difference in locating the investment on a Teesside chemical park. Increased capital allowances will also be important in helping chemical companies decarbonize, partake in the carbon capture project and the envisaged expansion of the hydrogen economy.

Many companies said that increased capital allowances would help to attract new businesses to the chemical parks that would directly integrate with their existing facilities. For example, a producer of base chemicals said they would find it very beneficial if its customers were located “*next door*”. Incentives to create, and recreate, more integrated supply chains were a common theme in discussions with NEPIC members.

In several cases, companies stated that being within a Freeport, which incorporated chemical parks, would not necessarily help them directly, however, they envisage seeing indirect benefits through the potential for increased use of their services.

Several companies highlighted that they currently make extensive R&D tax claims and that enhanced R&D tax credits would help them financially, whilst also encouraging additional expenditure in this area.

The consultation document suggested there could be business rate discounts worth up to £55,000 per year. Whilst any financial help is welcome, such a discount is very small in relation to the millions of pounds in rates some companies are currently paying.

## 8.3 Planning Advantages

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### Feedback Highlights

- Existing chemical parks already offer easy to navigate planning freedoms
- Independent oversight on building and planning within a Freeport would allow companies to operate and expand in the future
- Consider the incorporation of a Development Consent Order

Chapter 5 of the Government's consultation document discussed potential planning advantages that could come with Freeport status.

In general, NEPIC members across the various chemical parks did not see any particular advantages to improved planning regulations due to the sites already easy to navigate planning freedoms.

One company said that *"independent oversight on building and planning in the Freeport would be good"* and *"the freedom for companies to operate and expand in the future is important."*

We would advise considering the incorporation of a Development Consent Order into the Freeport as it would make subsequent developments easier.

## 8.4 Economic Regeneration

### Feedback Highlights

- Freeports offers a clear regional benefit making the Tees Valley more attractive for inward investment
- Chemical park inclusion within a Freeport is critical to supply chain development
- Regeneration must be based on protecting existing industry recognizing that in doing so new investments from existing and new businesses will follow
- Strategic assets, such as the nitrogen and ammonia clusters, must be considered

Chapter 6 of the Government's Freeport consultation document concerns the potential for economic regeneration, and the revival of some of the UK's most disadvantaged towns. NEPIC members' views were set out on the potential help that a Freeport, as envisaged in the government document, would stimulate industrial regeneration.

A common view was that a Freeport would give *"a clear regional benefit"* and *"will make the region more attractive for inward investment."*

As mentioned within the chapter on tax, a Freeport *"would be beneficial if it encourages customers to set up on site"*, however, *"this supply chain development would only happen if the chemical parks were included in the Freeport geography"*.

One NEPIC member company explained that it was the only producer of a certain chemical in the UK, and that this was also the case for several Teesside chemical manufacturers. These companies are therefore of strategic importance to the UK economy and are supplying many other important industries such as aerospace, automotive, food & drink, consumer goods, etc. Regeneration must be based on a strong, existing, strategic industry and the view of members was that a Freeport would help protect what we have whilst providing a catalyst for regeneration.

Another NEPIC member commented that *"the North Tees chemical park is home to the nitrogen and ammonia cluster, another UK strategic asset, which needs to be included in the Freeport"*.

The recent Chemistry Council report '[Sustainable Innovation for a Better World](#)' sees two core supply chain themes:

- Securing and Strengthening Existing Supply Chains; and
- Building New Innovative Supply Chains

Both these themes are much more likely to be realised within existing chemical parks. This is due to the considerable advantages for new supply chain projects including the legacy infrastructure that offers a 'plug and play' environment providing chemicals, gasses, energy, steam, etc. to potential new assets.

If these advantages are coupled with the provision of carbon capture infrastructure and the incentives associated with a Freeport, our existing Teesside chemical parks could grow considerably.

Members suggested that the *“Freeport should be across multiple sites”* and that *“most liquids coming into the Tees are unloaded on the north bank, therefore, this area should be part of any Freeport”*. Another member stated that *“it would be beneficial to have the North Tees gas terminal within the Freeport, so that the short haul tariff could be applied across the zone”*.

Several companies mentioned that their foreign owners were, by national character, highly risk averse. They argued that if their assets were inside a Freeport, it would give these owners more confidence to invest.

Energy costs were mentioned by a number of members as a concern with one respondent saying: *“Private wire across the whole of the Freeport would be beneficial. Private wire rules mention source and destination of the electricity must be ‘adjacent’*. A Freeport could make anywhere within it *“adjacent”* allowing all within the Freeport having access to low cost power.

It is clearly not an option for many of the assets on existing chemical parks to relocate to gain advantage of a Freeport, as their replacement value is measured in many £100m's.

One of the big prizes that could potentially result from a Freeport is the *“reestablishment of downstream supply chains on Teesside that freeport incentives provide. This would be highly beneficial to current manufacturers of monomers and plastics”*.

A member commenting on plastics recycling stated that *“this needs to happen close to producers – a Freeport will enhance this opportunity”*.

Another member suggested that *“the attraction of our supply chain would be good if incentivised by a Freeport”*.

Within this chapter 6, Regeneration, it references Infrastructure as a top priority for the Government, therefore NEPIC also asked its members if additional infrastructure would help support their businesses.

It is true to say there was not a consensus view on this matter. However, one company that does a lot of business with North America said: *“International links are very important; “the North East needs to be better connected to the rest of the world”; and that “Newcastle to USA flights would be helpful”*.

Another company suggested that *“a better train connection to London would be helpful”*. Several companies saw that the refurbishment of various rail lines, both North and South of the Tees, as being beneficial. Others saw such considerable expenditure as having poor value for money.

Some companies mentioned greater port capacity as being important, including the ability to accommodate larger vessels which would remove the need for ships to decant in Rotterdam first.



## 8.5 Hotbed for Innovation

### Feedback Highlights

- Innovation is necessary to re-shore and introduce new supply chains
- Innovation is essential for generating improved productivity
- Academic and technology development organisations are already present regionally who have the potential to enhance the innovation capability of the chemical industry

Chapter 7 of the Government's Freeport consultation document concerns innovation, both in terms of Freeport operation and economic development.

Innovation is key to sustaining existing businesses within Teesside's chemical parks, as well as attracting investment from new and existing companies. This is particularly the case as regards attracting new supply chains to the region as explained in the response to Chapter 6, Regeneration. Examples include circular supply chains such as those required for plastics recycling; supply chains for new markets, for example the chemicals and materials required for automotive batteries; or re-establishing old supply chains such as Ethylene Oxide.

Ethylene Oxide was lost to the Wilton International site 10 years ago following the closure of the Dow Chemical facility. Ethylene Oxide sits at the head of many supply chains, especially for the cosmetics industry, yet, it is all currently imported into the UK. New technology could produce an environmentally friendly 'Bio-Ethylene Oxide', made from bioethanol already available on the Wilton International site.

However, there are barriers to companies establishing such supply chains including the need for new, innovative process technology to ensure manufacturing is commercially viable. Many supply chains from a range of UK manufacturing sectors have been lost to low cost regions of the world. Seeing them return will be partly dependent on being able to deploy new intellectual property to improve their process economics.

Innovation is not only about new science that is developed by the UK's academic base, but also the ability to develop technology from the science that is safe and economic to deploy at a large, industrial scale. In the Tees Valley we have a part of the UK's High Value Manufacturing Catapult, the Centre for Process Innovation (CPI) that has the assets and expertise to convert science into deployable technology. CPI is headquartered in the Wilton Centre, part of the Wilton International chemical park.

The 2018 [Northern Powerhouse: Chemical & Process Sector, Science & Innovation Audit](#), developed a vision for the sector:

*"To ensure that the Northern Powerhouse contributes to the successful delivery of the Strategy for Chemistry fueled growth that by 2030, chemistry using industries will increase their contribution to the UK economy from £195 billion to £300 billion".*

This report identified the significant academic strength in the northern universities related to the chemical and process sectors that could be leveraged to help grow the industrial clusters in the North West, Humberside and on Teesside.

There is an opportunity to harness the academic strength that is present in northern (and other UK universities), and the translational expertise of CPI. However, success will require an economically viable location for new supply chains and technologies to be deployed.

A freeport that protects the existing process sector on Teesside, and provides incentives to deploy new technology, would complete the economic picture. Existing Teesside Chemical parks are key to this exploitation of new technology as they provide the integrated infrastructure (including Carbon Capture & Storage in the future), that offers a compelling case for companies to invest.

Manufacturing companies are constantly innovating, in-house, to improve their products and make their processes more economic. In some cases, they are also developing new processes to bring novel products to market. The potential improvements to R&D tax credits mentioned in the Freeports consultation document would help manufacturing companies increase their productivity and bring new products to market.

Collaborative mechanisms between academia, local government and industry are already in place to coordinate the deployment of new technology into the process sector in the North East. Furthermore, the Tees Valley LEP Industrial Collaboration Board has been created with the remit to:

*'Leverage the full potential of our innovation ecosystem, in support of building innovation capability, R&D capability, commercialisation, business creation and growth. Its focus is on supporting innovation in clean energy, low carbon, hydrogen, bioscience, chemicals and industrial digitalisation. By way of example, the key areas of innovation required to drive forward the chemicals and process sector within Tees Valley is chemistry and digitalisation.'*



In addition, NEPIC leads an Innovation Special Interest Group comprising of representatives from North East Universities, Local authorities (TVCA and NE-LEP), large-scale manufacturers, technology developing SMEs and CPI.

The purpose of the Innovation SIG is to provide a strong supporting mechanism to deliver NEPIC members' innovation needs, for the collective benefit of the North East chemical and process sector. The Northern Powerhouse: Chemical and Process Sector – Science and Innovation Audit, and the Chemistry Council Sector Deal will be used to establish the current state of the chemical and process sector both locally and nationally.

Additional funding is required if the potential in the Northern Powerhouse: Chemical & Process Sector, Science & Innovation Audit is to be fulfilled.

In summary, there is the potential in a Teesside Freeport to increase the capability and productivity of process manufacturing through incentivising innovation. Teesside's chemical industry has the potential to become a hotbed for innovation, as well as a world-class manufacturing location.



## 8.6 Additional Policy Considerations

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### Feedback Highlights

- Chemical plants are situated within secure parks or protected by individual security infrastructure
- The movement of materials by road, sea and pipe are monitored and highly controlled
- Experienced and extensive use of bonded warehouses
- Pipeline infrastructure is secure from illicit activity
- The Freeport operator should have no commercial interests

Chapter 8 of the Government's Freeport consultation document discusses a number of areas, including preventing illicit activity. As all the chemical plants are either within secure parks such as Wilton International, or protected by individual security infrastructure, members felt that all sites are secure enough to prevent illicit activity.

One company described their materials moving in three ways: ship, road and pipe. All are metered and tightly controlled. They have in-house stock control systems and it could theoretically be possible for a Freeport operator to access these IT systems, allowing good control of materials.

Bonded warehouses are used extensively in the Teesside chemical parks therefore there is experience of using what is an integral element of a Freeport already.

Most chemicals are moved between sites using pipes which must be inherently secure for safety and business reasons. This also makes them very secure from an illicit activity point of view. One member said they *"see the Freeport containing the integrated chemical industry in contiguous zones"*.

Most of the companies surveyed said that the organisation that ran the Freeport should not have commercial interests in the port too. Many commented that overall control should be vested in an independent body such as Tees valley Combined Authority who then delegated to a logistic company to operate the zone: *"whomever runs the Freeport needs to have transparency"*. Furthermore, *"streamlined regulations are needed, not multiple agencies"* and *"any rules set up in the Freeport area would have to be long term otherwise investors would not have the certainty they needed"*.

There were concerns raised about unintended consequences such as if a company found itself outside the zone which in turn adversely affecting its business.





