

A high-angle photograph of a worker in an orange jumpsuit and white hard hat operating a large yellow industrial valve. The worker is wearing blue gloves and is positioned in front of a yellow wall with a metal grate. The scene is brightly lit, with shadows cast on the wall. The image is overlaid with a semi-transparent circular graphic and horizontal lines.

INEOS

2021 SUSTAINABILITY REPORT



CONTENTS

About this report

This report describes 2020 performance, data and approach for INEOS operations worldwide.

It is aligned with the Global Reporting Initiative (GRI) framework and was prepared with the support of Quantis, a global sustainability consulting group.

The data collected provide information for 2020 across all INEOS businesses worldwide and is benchmarked against 2019 data.

The report focuses on the issues most material to our company and stakeholders. It also covers our roadmaps towards our commitment to net zero by 2050.

Any questions and/or feedback regarding this report should be directed to ineos.sustainability@ineos.com.



1.0 GENERAL OVERVIEW

1.1 TACKLING GLOBAL CHALLENGES

The INEOS roadmap to achieving net zero emissions by 2050



COP 26 in Glasgow has reaffirmed the global commitment to reducing the impact of the modern world on the climate of our planet. Most nation states have set the goal of achieving net zero emissions by 2050. That will only be achieved through

the concerted efforts of governments, industry and the general public and I am fully committed to INEOS playing a key role in that transition.

Our INEOS businesses are developing roadmaps to deliver net zero emissions across all of our operations by 2050, whilst remaining profitable and staying ahead of evolving regulations and legislation. Based on the roadmaps developed to date, we will achieve a reduction of over

10% by 2025 and over 33% reduction by 2030, the one third marker on the road to net zero. We will not make pledges that we cannot support with real world action plans.

This process has already started. We will spend over €6 billion to back our plans. In addition to investing over €3 billion in a wide range of projects that will reduce our footprint, we have announced ambitious plans to harness our expertise and technology to drive the development of a new hydrogen economy. In addition to a €1.2 billion investment in blue hydrogen allied to carbon capture technology at our major site at Grangemouth in Scotland, we have also announced a further €2 billion in a series of green hydrogen plants throughout Europe.

Our commitment to the development of a true circular economy is another

key part of our plan for a sustainable future, where materials are reused to the maximum extent and no products, once used, enter the natural environment. We have a wide range of new products and new technologies designed to support this change to a genuine circular economy.

INEOS will play a full and active part in the transition to net zero, not only through reducing the impact of our operations but by providing the products that support other industries and individuals to reduce their own impact on the climate. Our range of applications include the following:

- health and medical devices,
- clean water,
- food conservation and preservation,
- renewable energy products,
- lighter energy saving materials for transport and mobility,
- clothing and apparel,

- construction and transmission of water and energy,
- electrical insulation and information technology,
- household and electrical goods.

Our products are essential to modern life based on their performance, affordability and environmental footprint and are the best, and sometimes only, materials for each use. INEOS is here to provide the solutions to the challenges that the world faces and we are determined that we will achieve net zero emissions whilst continuing to deliver what the world needs.

Sir Jim Ratcliffe
INEOS Chairman
December 2021

1.2 VIEWS FROM OUR LEADERSHIP



“We rely on the creativity, diversity, knowledge, passion and expertise of our people to drive a sustainable business and competitive advantage. We provide an environment where everyone has the opportunity to develop to their full potential; an entrepreneurial culture where talent quickly rises and people are rewarded for taking the initiative.”

JILL DOLAN

HR Director
INEOS Group



“INEOS provides the materials, molecules and technology needed by society for a more sustainable future. As we move towards a resource and energy efficient world, the chemical industry plays an essential role. Through our innovative products and emission reduction roadmaps, we actively contribute to the shift toward net zero by 2050.”

LYNN CALDER

CEO
INEOS Composites



“INEOS is involved in hundreds of projects on carbon, hydrogen, heat & power, renewables, resources and waste. Many of them are innovation projects linked to universities and partner organisations as we seek to harness expertise and work with cross-sector businesses to optimise the significant benefits from our industry and beyond.”

GREET VAN EETVELDE

Head of Energy and Innovation
INEOS Group



“INEOS has set itself clear targets to use more recycled plastics to make sustainable products by 2025. And it's making good progress already with many new products now on sale. All this is moving us to a circular economy which will increase resource efficiency, reduce greenhouse gas emissions and provide an outlet for plastic waste.”

PETER WILLIAMS

Technology Director
and Head of Investor Relations
INEOS Group

OUR COMMITMENT TO SUSTAINABILITY

For INEOS, sustainability is fundamental to how we do business. It is a key driver of innovation in meeting the challenges associated with evolving societal needs. Our approach to sustainability encompasses six key areas around which our report is organised.

Our sustainability strategy is to develop and safely manufacture the products needed to address the evolving challenges of climate change, public health, resource scarcity, urbanisation and waste in a way which drives us all towards a net zero emissions economy by 2050. We will do so whilst reducing the impact of our operations. INEOS businesses have put in place the plans and actions needed to ensure that they transition to a net zero economy by no later than 2050, whilst remaining profitable, and staying ahead of evolving regulations and legislation.



1.4 INEOS AT A GLANCE

INEOS is a global manufacturer of petrochemicals, speciality chemicals and oil products. Comprising 36 individual businesses, we operate 194 facilities in 29 countries. In recent years our scope of operations has diversified with the launch of INEOS Automotive and INEOS Hygienics, the acquisition of BP Aromatics and Acetyls, the iconic British brand Belstaff and an ever-expanding sports portfolio. We offer a blend of opportunism, belief that we can add value, and a pursuit of our core values and passion for adventure. INEOS' headquarters are located in London, UK.



Turnover: \$61bn



Employees: 26,000



Production: 54m tonnes



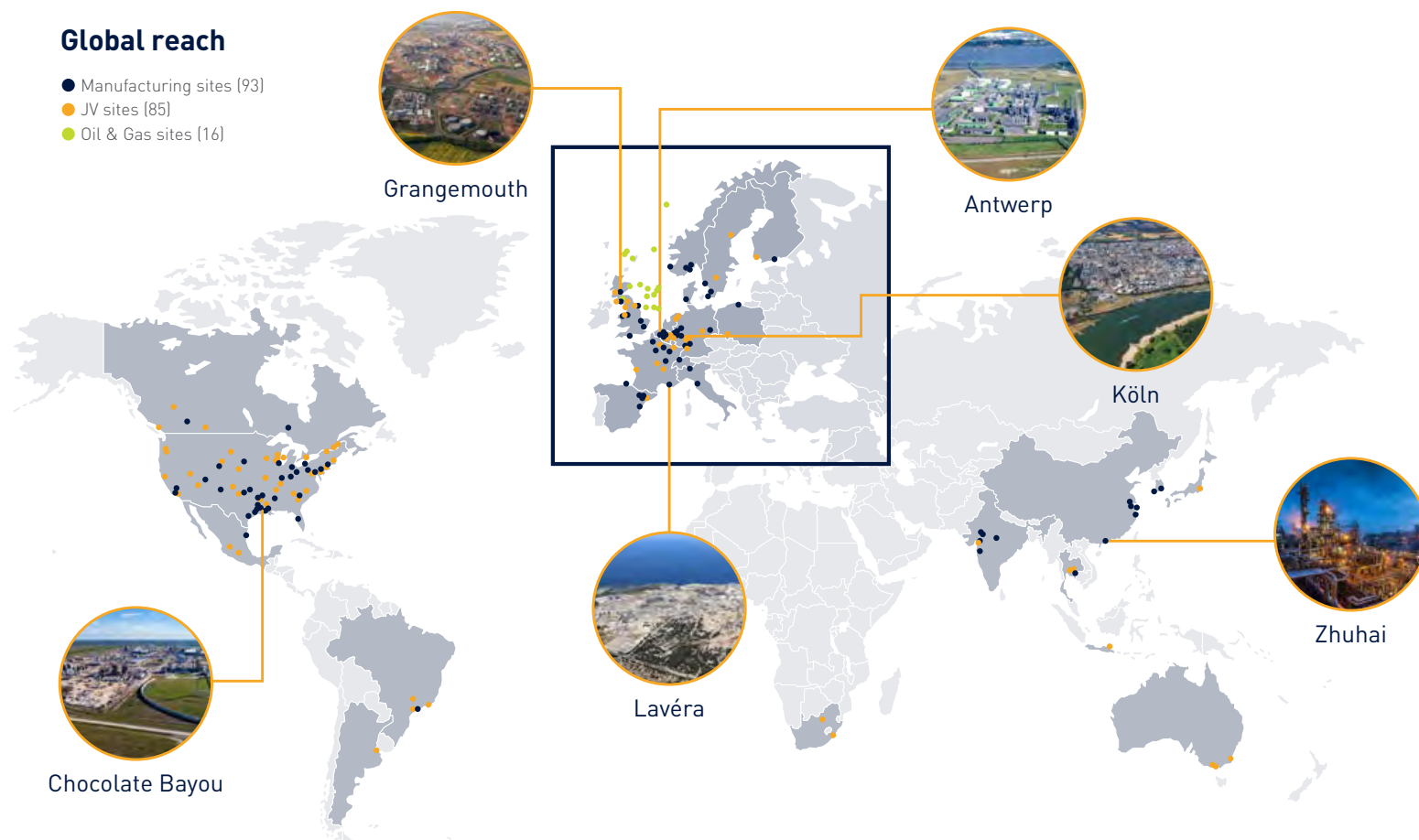
Sites: 194



Countries: 29

Global reach

- Manufacturing sites (93)
- JV sites (85)
- Oil & Gas sites (16)

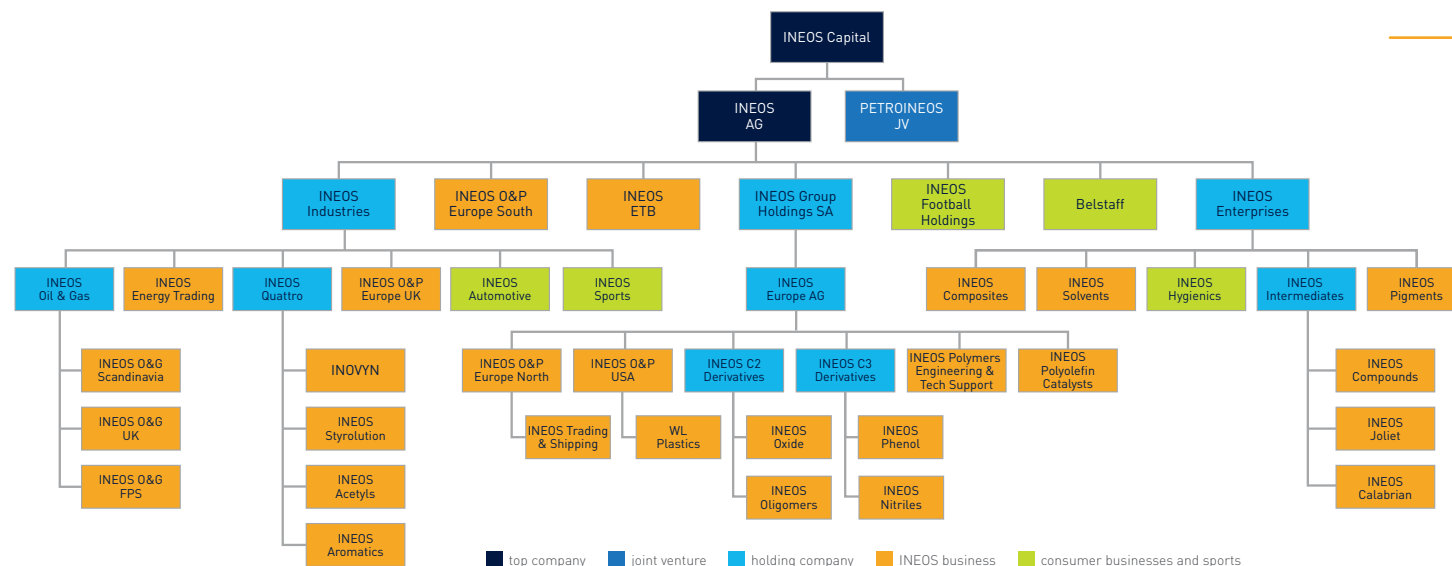


OUR STRUCTURE

INEOS is led by its founder and chairman Sir Jim Ratcliffe and co-owners Andy Currie and John Reece (INEOS Capital). We operate a federal structure based on clear reporting lines and direct accountability. Each INEOS business has its own executive board (CEO, CFO, operations, business, purchasing and HR directors) which is responsible for all functions including business management, finances, operations, procurement, IT, HR, communications, banking, legal and tax. A chairman for each business is accountable for guiding and approving the business strategy and its investment opportunities.

Each INEOS business CEO is nominated and selected by the INEOS shareholders. The business executive boards are fully accountable for the management of their business and strategy in its entirety. INEOS shareholders chair executive committee meetings regularly throughout the year, providing crucial oversight of the operation of each business.

The INEOS central office function is extremely lean, with about 40 people compared with typically hundreds in organisations of comparable size. The federated structure and minimal hierarchy encourages an agile organisation in which communications and decision making happen quickly.



Sustainability governance

Key areas such as safety, health and environment (SHE), IT security, ethics and compliance are governed at a group level and implemented by each business. Safety, health and environmental performance are our highest priorities and are reported upon at the beginning of each executive committee meeting.

Each business determines its own sustainability strategy. Group-wide, this is coordinated through the climate and energy network (CEN). The CEN works with all INEOS businesses on carbon, energy and resource matters. CEN matrix 'issue teams' work at the policy and advocacy level, sharing best practice, new

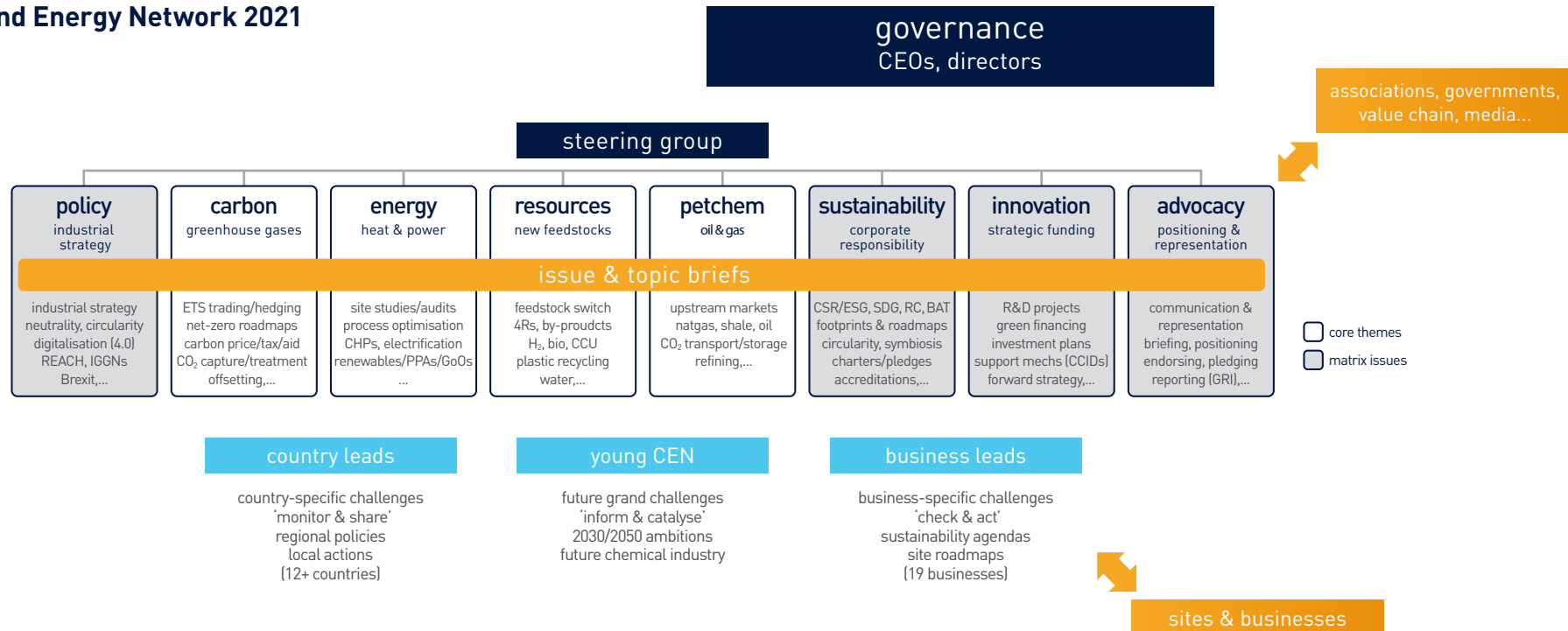
business opportunities and innovation. The network covers greenhouse gas (GHG) emissions, heat and power, sustainability, innovation, policy, advocacy and more.

Updates from the CEN and SHE performance are both shared at the half-yearly meetings with all

business CEOs. Every year, the CEO of each INEOS business ensures the compliance of each of their manufacturing sites with INEOS' highest operational and financial standards.

The Network currently has over 1000 members across the INEOS Group.

Climate and Energy Network 2021



1.6 SIGNIFICANT CHANGES TO THE ORGANISATION

Business acquisitions and divestments in 2020 and 2021:

- 1 INEOS builds hand sanitiser plants in the UK, US, France and Germany.
- 2 INEOS launches global consumer healthcare business under the name INEOS Hygienics.
- 3 INEOS launches a new clean hydrogen business to accelerate the drive to net zero carbon emissions.
- 4 INEOS O&P USA acquired Sasol's ownership of Gemini HDPE LLC.
- 5 INEOS Automotive confirms acquisition of Hambach production site from Mercedes-Benz.
- 6 INEOS completes the acquisition of BP's global Aromatics & Acetyls business.
- 7 INEOS Energy sells its Norwegian oil and gas business to PGNiG.
- 8 INEOS Enterprises completes the sale of its Sulphur Chemicals business to International Chemical Investors Group.
- 9 INEOS Energy acquires all oil and gas interests from HESS Corporation in Denmark.



1.7 OUR APPROACH, GOALS AND KEY VALUES

INEOS is committed to help find the scientific and engineering solutions to the climate challenge facing the world. We use our creativity to solve problems and move quickly to achieve change.

Our products make an indispensable contribution to society, often providing the most sustainable options for a wide range of societal needs.

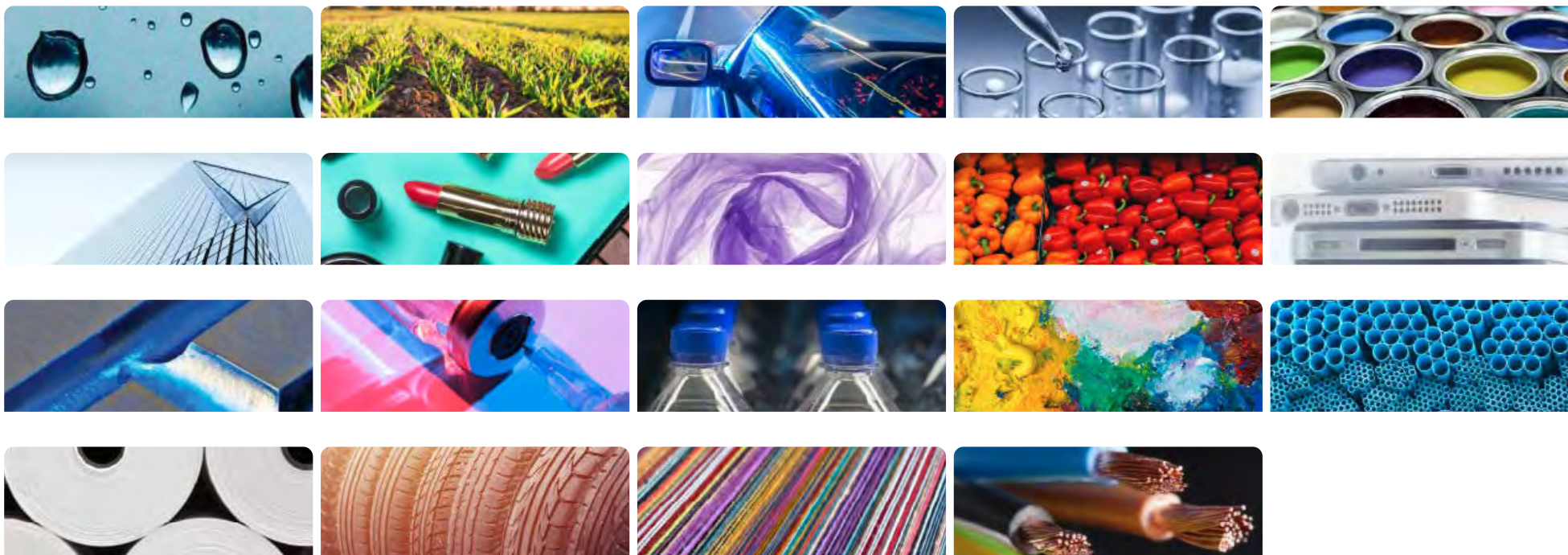
Our culture is entrepreneurial, defined by a lack of bureaucracy. Being privately owned offers the freedom to take a long-term view, while a simple and decentralised organisational structure enables quick and efficient decision-making. Sports and fitness are integral to the INEOS culture, as are grit, rigour, humility and a real team ethos.

We are committed to delivering continuous improvement across all activities in all locations, and to working with local communities and stakeholders to be a responsible neighbour.



1.8 OUR PRODUCTS AND MARKETS

INEOS has a diversified product portfolio with a wide range of end market applications. Our chemical intermediates businesses, with leading global positions and differing industry cycles, provide earnings strength worldwide.



Our products make an indispensable contribution to society.

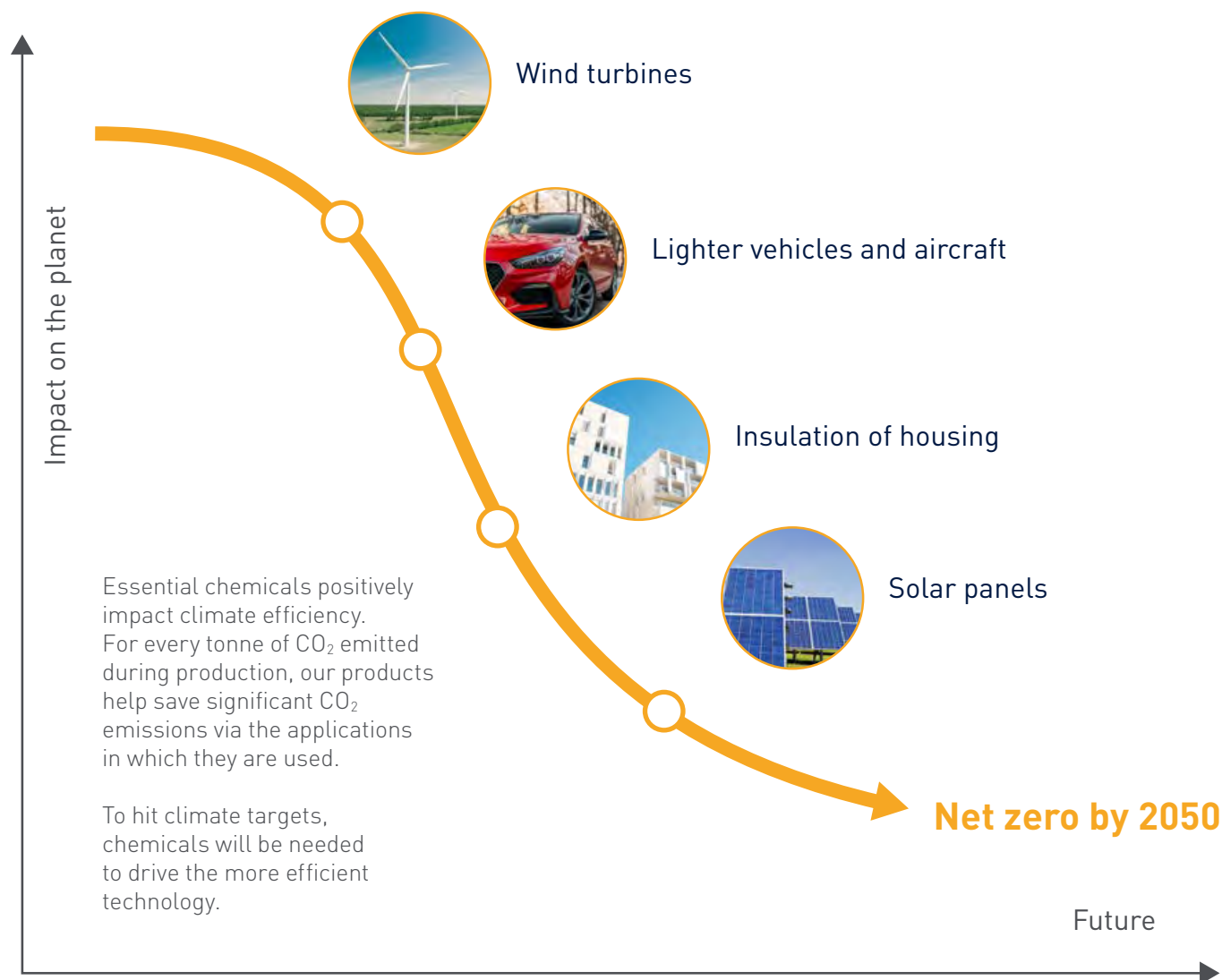
For example:

- preservation of food and clean water,
- construction of wind turbines, solar panels and other renewable technologies,
- production of lighter and more fuel-efficient vehicles and aircraft,
- development of medical devices and applications,
- production of clothing and apparel,
- enabling telecommunication, insulation and other industrial and home applications.

If polymers and plastics were to be replaced to the maximum extent with other products in applications where they can be substituted, overall life cycle GHG emissions in Europe would increase by more than 50%.*

INEOS businesses have put in place the plans and actions needed to ensure that they lead the transition to a net zero emissions economy by 2050, in line with the Paris Agreement, whilst remaining profitable, and staying ahead of evolving regulations and legislation.

*ref. denkstatt Vienna 2010, updated 2020



1.9 DETERMINING WHAT IS MATERIAL

Selecting and assessing what is material for INEOS helps us to understand threats and opportunities that could affect our businesses.

By listing the material topics and assessing their impact, we can inform our strategy and prioritise our reporting.

INEOS engages with nine key stakeholder groups to understand sustainability topics relating to our businesses that are important to them. In our 2020 sustainability report we described the formal materiality assessment performed in alignment with the GRI reporting framework. 19 topics were assessed across stakeholder groups identified by their importance to our business operations. From these nineteen topics eight are prioritised as most material as shown in the following table.

On each of the key material topics, we monitor and report our performance

against targets where these are set. The 2021 report includes a description of our management approach addressing the most material topics in detail in the relevant section, as noted.

The 11 remaining material topics including hydrogen economy, economic performance, management standards, IT security, sustainable procurement, working conditions, labour unions, training & career management, diversity & equality, and community engagement are also covered throughout this report.

INEOS also discloses emissions in its CDP submission that will be public in 2022. Through 'double materiality' we also take into account the financial risk of operating an energy intensive business.

Key material topics	Section
Climate change	2.0
SHE & REACH	2.1
Water management	2.1.4
Waste management	2.1.5
GHG emissions management	2.2
Energy management	2.2.3
Circular economy	2.3
Ethics	2.6

1.10 CONTRIBUTING TO THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

INEOS contributes positively to ten of the United Nations Sustainable Development Goals (UN SDGs).

INEOS produces chemicals that are used to produce retro/antivirals, antibiotics, steroids, anti-inflammatories, paracetamol/aspirin and the reagent chemicals used in virus testing kits (goal 3). Our businesses also provide products essential for sanitation pipes and industrial systems as well as chemicals needed to ensure water is safe for drinking or to treat sewage (goal 6). Next to this, INEOS materials deliver the building blocks for innovation in renewable energy technologies (goal 7 and sub target 7.2).

Many INEOS products are essential in the provision of efficient housing,

infrastructure, water and energy networks, transport systems and urbanisation (goal 11). Other INEOS products, such as carbon fibre, contribute to a lower-carbon society, and are needed to capture renewable energy such as wind and solar power. As Europe's largest producer of hydrogen, we are in a unique position to enable energy transition away from fossil fuels (goal 13).

We promote strong economic growth and provide work opportunities to communities through our practice of investing in businesses that are no longer strategic to their owners, supporting and enhancing their sustainable success (goal 8).

INEOS is actively involved in several cross-sector initiatives to address environmental and resource concerns, reduce raw material and waste disposal and support circular business models (goal 9, and sub target 9.4). These multi-stakeholder initiatives are in the form of corporate memberships, industry charters, management standards and other pledges (goal 17 and sub target 17.16).

INEOS has been signatory to the Responsible Care charter since 2015. We also invest in both mechanical and advanced recycling as shown by the RSB and ISCC certifications our businesses have obtained and by the circular products we already offer



(goal 12 and sub target 12.5). As part of the Operation Clean Sweep initiative, we are actively working to address marine litter and pellet loss across our facilities and value chain; and we hope to give waste plastic value to ensure it is recycled at the end of its life (goal 14).

In addition to the United Nations SDGs, INEOS also supports the 10 principles of the United Nations Global Compact (UNGC).



SDG 7.2

By 2030, increase substantially the share of renewable energy in the global energy mix

INEOS is Europe's largest operator of electrolysis technology. Moreover, our materials make innovation in renewable energy possible. This includes the production of 100m long wind turbine blades and synthetic oils to extend the service life of wind turbine gearboxes.

See chapter [2.2.3](#) on energy sources to run our operations and on clean energy sources to run our operations for more info.

SDG 9.4

By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

INEOS products are essential for building efficient housing, providing basic infrastructure for the provision of water and energy networks, sustainable transport systems, sustainable urbanisation, and sustainable buildings. See chapter [1.8](#) on our products and markets for more information.

We are also working to reduce our own climate impact across our businesses through energy efficiency projects and INEOS' climate and energy network. See chapter [2.2.2](#) on our six pathways and roadmaps to achieve net zero by 2050. We participate in several collaborative initiatives across our industry to share best practices with our peers as we work, collectively, to minimise our impact while optimising our benefit.

In specific, INEOS' new business Project ONE that aims to build one of Europe's most innovative and best climate-performing olefin complexes in Antwerp.





SDG 12.5

By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

INEOS is a signatory of the Responsible Care Global Charter and committed to safely managing chemicals throughout their lifecycle. We are committed to fulfilling all REACH obligations as part of our product stewardship, free trade policy and responsible care pledges. We invest in recycling technologies to promote a circular economy.

We are also working to give waste plastic a value to ensure it is recycled at the end of its life rather than disposed of in landfill sites where it can escape into the natural environment.

More information on Responsible Care, REACH and product stewardship can be found in section [2.1.2](#) and [2.1.3](#), and how we manage our hazardous and non-hazardous waste in section [2.1.5](#).

SDG 17.16

Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilise and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries

To accelerate the achievement of the SDGs, we work on many multi-stakeholder initiatives, collaborating with other companies, communities, universities, and partners all along the value chain. INEOS is actively involved in several cross-sector initiatives to address environmental and resource concerns, reduce raw material and waste disposal and support circular business models. See page [24](#) for a list of our corporate memberships, industry charters and management standards.





1.11 SUSTAINABILITY HIGHLIGHTS 2021

INEOS continues to improve its safety performance year after year.

JANUARY 2021

INEOS donates £100 Million to create new Oxford University Institute to fight Antimicrobial Resistance. Researchers will seek to develop new drugs for animals and humans, as well as promote more responsible use of the antibiotics we have. [Read more...](#)

FEBRUARY 2021

A first in Belgium: INEOS Phenol and ENGIE use hydrogen in industrial plant in Antwerp. For the first time in Belgium, hydrogen will be used in a commercial scale cogeneration plant designed to generate electricity and heat from natural gas. [Read more...](#)

APRIL 2021

Advanced Plastic Recycling from INEOS Olefins & Polymers USA Receives ISCC PLUS Certification. Chocolate Bayou, Battleground and Carson become the first INEOS sites in the US to receive ISCC PLUS certification. [Read more...](#)

MAY 2021

BIOVYN™ provides a sustainable solution for fossil-free construction. BIOVYN™ delivers a greenhouse gas saving of over 90% compared to conventionally produced PVC. [Read more...](#)

MAY 2021

INEOS and LACTEL partner to produce the world's first HDPE Milk Bottles from advanced recycling. Advanced recycling enables conversion of waste plastic back to new, high-quality polymers, used to produce the Lactel bottles. [Read more...](#)

JULY 2021

INEOS Energy announces £25 million cornerstone backing for HydrogenOne, London's first listed fund dedicated to clean hydrogen. INEOS Energy has agreed to purchase 25 million shares in the forthcoming IPO of HydrogenOne Capital Growth plc, representing 10% of the target fund raise of £250 million. [Read more...](#)

JULY 2021

INEOS and Petroineos at Grangemouth join the Scottish Cluster, partnering with the Acorn Project to capture and store up to one million tonnes of CO₂ by 2027. INEOS and Petroineos have entered into a Memorandum of Understanding with the Acorn CCS Project to work together to develop Scotland's first carbon capture and storage system. [Read more...](#)

AUGUST 2021

Consortium members agree to back Greensand, carbon storage pilot project, in support of Denmark's ambitious 70% CO₂ reduction targets by 2030. 29 consortium members have signed up to phase 2 of Europe's first full Chain Climate Carbon Capture and Storage Pilot project. [Read more...](#)

SEPTEMBER 2021

Carbon Capture and Storage Gains Wide Industry Support in Houston. INEOS is one of 11 companies support large-scale deployment of carbon capture and storage to help decarbonise industrial facilities. [Read more...](#)



SEPTEMBER 2021

INEOS Grangemouth moves forward on the next phase of its journey to reduce greenhouse gas emissions to net zero by 2045, with further investment in excess of £1 billion. Grangemouth announced the next phase of its roadmap to deliver emissions savings of more than 60% across the site by 2030. [Read more...](#)

OCTOBER 2021

INEOS announces over €2 billion investment in Green Hydrogen Production. Europe's largest ever investment in electrolysis projects to make green hydrogen with the potential to transform zero carbon hydrogen production across Europe. [Read more...](#)

OCTOBER 2021

INEOS to take leading role in the hydrogen revolution with launch of hydrogen campaign. INEOS has doubled down on its €2 billion investment in green hydrogen with the launch of a hydrogen advocacy campaign. [Read more...](#)

OCTOBER 2021

INEOS green hydrogen project accelerates towards net-zero future in Germany by 2045. INEOS through its subsidiary INOVYN have announced plans to build a large-scale, 100MW electrolyser to produce green hydrogen at the Koln site in Germany. [Read more...](#)

OCTOBER 2021

INOVYN at Runcorn to ramp up hydrogen supply to fuel trucks buses and power generator sectors. INOVYN is to upgrade existing low-carbon hydrogen supply to fuel transport in the UK and drive the country's green transition to net-zero by 2050. [Read more...](#)

NOVEMBER 2021

INOVYN announces project to develop Europe's first hydrogen powered barge for bulk liquid chemical transport. The hydrogen-powered barge will transport vital raw materials for INOVYN between its sites at Antwerp and Jemeppe, Belgium. [Read more...](#)



2.0 IMPROVING THE SUSTAINABILITY OF OUR BUSINESS AND OPERATIONS



OUR APPROACH

This report highlights our commitment to sustainability. It provides a clear focus on our activities and data

INEOS measures its performance and progress against commitments and targets set against a 2019 baseline. This covers data from across our sites, for GHG emissions, energy, water and waste.

To calculate carbon footprints and prepare consistent emission reduction roadmaps, INEOS has developed a science-based method for emissions accounting, aligned with the Greenhouse Gas Protocol.

The INEOS science base is a robust method to measure and help manage greenhouse gas emissions. The data collection is managed centrally through the climate and energy network, using a shared online platform. Since 2021, we are a recognised respondent to CDP. We use its climate change questionnaire to maintain transparency of our climate strategy and to gain external validation for our initiatives.



“ Our challenge is to deliver a roadmap which ensures a just transition to net zero. This can only be achieved if we remain globally competitive and we stay ahead of evolving regulations and legislation.

STUART COLLINGS
CEO, INEOS O&P UK

Science-based method for emissions accounting

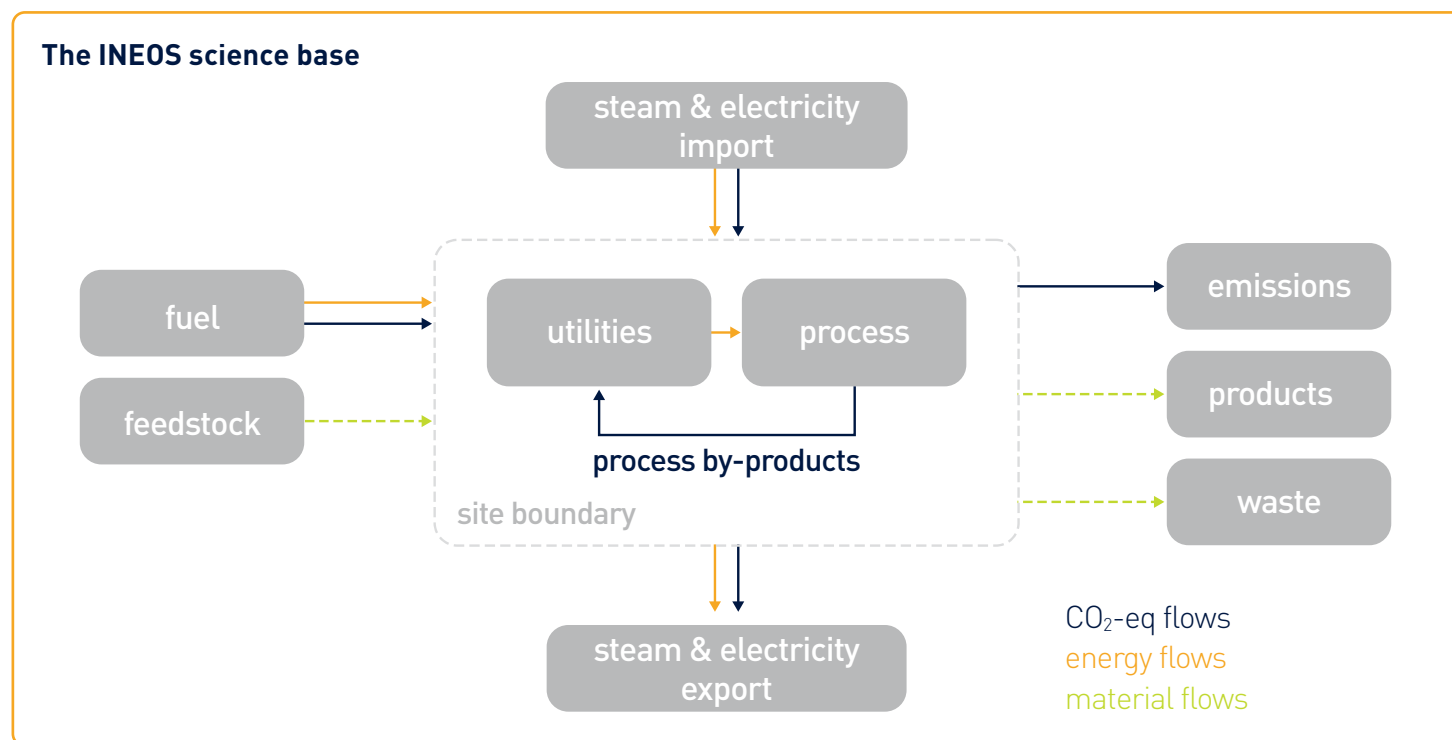
The INEOS science base is a robust method developed for consistent emissions accounting. It provides a rigorous approach to gather GHG data for compliant scope 1 and scope 2 reporting*. The method uses the financial control approach as defined by the GHG protocol with INEOS** as parent company, including all manufacturing subsidiaries. It also includes Petroineos at 50% share for the purpose of materiality but excludes sports and fashion entities.

In compliance with the GHG Protocol, the INEOS science base also clearly specifies pass through criteria. To ensure correct emissions accounting and prevent double-counting of renewable power, the INEOS science base follows the market-based approach for reporting scope 2 emissions on electricity, recognising the GHG protocol quality criteria. Emissions on exported steam and electricity are excluded from INEOS' footprint but they are reported separately in the interest of transparency. Captured CO₂ is also excluded from INEOS' footprint where it is transferred to third parties or embedded in intermediate products used elsewhere on our sites.

* INEOS GHG inventory

** INEOS AG

The INEOS science base



Based on input from all businesses, INEOS has developed a roadmap protocol that distinguishes 6 emission reduction pathways. The protocol supports all INEOS sites to draw dynamic, realistic 2030 roadmaps that lead to interim targets to reach net zero by 2050. Each roadmap uses 2019 as a baseline, which is considered to have recent, accurate, complete, and consistent data for all sites. The baseline has been submitted to CDP.

Recalculation of the baseline is carried out to reflect structural changes in the company and following the all-year/same-year principle of the GHG protocol.

Reduction options in each of the 6 pathways are generated and further refined and arranged into realistic roadmaps for each site, based on economic and technical feasibility. In addition, organic growth or

decline is reflected as an increase or decrease in emissions, in line with the GHG protocol.

INEOS Group targets will be determined following a bottom-up approach taking advantage of the detailed input from the site-level roadmaps.

As we enter what may be the most significant period ever for the chemical industry in terms of sustainability, INEOS is determined to play its role in building a more sustainable future.

An energy transition is underway, calling for a joined-up, holistic approach in how to move away from fossil fuels such as oil and gas towards alternative energy sources such as solar, wind, nuclear, hydrogen and biomass.

This transition is going to take time and will need a sustainable platform.

- Chemistry is our business, and our chemical products and processes will play an essential part in this transition.
- Climate change and the circular economy is the cornerstone of our strategy and we remain focused on an innovative approach to recycling and renewables.

We have ambitious targets and a strategy based on six key pillars:

1. **Safety, health and the environment:** excelling in SHE through rigorous application of best practices and a positive safety culture.
2. **Climate neutrality:** helping to minimise our own carbon intensity and deliver a net zero emission economy by 2050.
3. **Circular economy:** maximising the reuse and recycling of our products.
4. **Valuing our people:** ensuring an equal opportunity environment in which a diverse team of people can develop, flourish, and help deliver the innovations we need.
5. **Working with our communities:** enhancing the communities in which we operate.
6. **Governance:** sustaining the highest standards of ethics and compliance.

INEOS subscribes to Corporate Social Responsibility (CSR) assessments by EcoVadis and Environment, Social and Governance (ESG) assessments by Sustainalytics. Read more on the EcoVadis press releases for [INEOS Europe](#), [Styrolution](#), and [INOVYN](#).

ecovadis

EcoVadis is a trusted provider of business sustainability ratings, intelligence, and performance improvement tools for global supply chains. In 2020, INEOS received a Gold EcoVadis score for our Europe AG businesses, demonstrating advanced management of environmental issues; ethics, labour and human rights; and sustainable procurement. INEOS Styrolution and INEOS INOVYN obtained a Platinum and Gold medal respectively.



Sustainalytics is a global ESG risk ratings company, providing assessments on companies' ability to mitigate risks and capitalise on opportunities. In 2021, Sustainalytics reported the company's management of material ESG issues as "strong". Overall ESG related disclosure follows best practice, signalling strong accountability to investors and the public. Furthermore, as the company's ESG related issues are overseen by the board or the executive team, it is recognised that these are integrated into INEOS' core business strategy.



To reach its ambitions, INEOS also joins forces with numerous European and international associations and partnerships as corporate, chairing or active member. We are signatory to several sector commitments and abide by a wide range of charters, pledges, and voluntary agreements through our active participation.

Corporate memberships:

- **Cefic:** ExCom, Board, programme councils, forums, issue teams and sector groups
- **PlasticsEurope:** ExCom, Board, working groups
- **Petrochemicals Europe:** ExCom, Board, working groups
- **Eurochlor:** Board, task forces
- **EPCA:** Board
- **SusChem:** co-chair SusChem Switzerland, member SusChem Europe
- **SPIRE:** corporate member
- **RSB:** corporate member
- **ISCC:** corporate member
- **NAPCOR:** corporate member
- **PETCORE:** corporate member

Industry charters, such as:

- **Cefic:** Sustainability charter
- **PlasticsEurope:** voluntary agreements
- **SCS:** Styrenics Circular Solutions: led by INEOS Styrolution
- **VinylPlus:** leading role by INOVYN
- **PCEP:** Polyolefins Circular Economy Platform: INEOS O&P member
 - PCEP voluntary commitments
 - PCEP recycled PO pledge
- **CPA:** Circular Plastics Alliance
- **ECHA:** European Chemicals Agency charter on REACH
- **Cefic:** product charters, e.g. OSPA - Oxygenated Solvents Producers Association, glycol ethers charter
- **Operation Clean Sweep**

2.1

EXCELLENCE IN SAFETY, HEALTH AND THE ENVIRONMENT



At INEOS, safety, health and the environment are the top priority for everyone who works for the company, whether employees, contractors,

or site visitors. Collectively and individually, we are committed to ensuring the highest levels of safety, health and environmental care across our operations, and through our product stewardship we ensure product safety to protect people and the environment from harm.

We promise we will never compromise our SHE standards to increase profit,

gain commercial advantage, reduce production costs or for any other reason.

Our drive to continuously improve our SHE performance includes a relentless focus on monitoring and reducing emissions to water, air and soil, optimising resource, energy and water usage, and improving waste disposal practices.

The chief executive of each INEOS business has ultimate accountability for its health and safety performance, which is reviewed monthly at board level.

Our goal is zero injuries and product spillages, to be achieved through rigorous application of best practices and a positive safety culture in which we believe all accidents are preventable.

Material topics covered:

- **SHE & REACH**
- **Management standards**
- **Waste management**
- **Water management**

Additionally, the shareholders of INEOS are updated on SHE performance monthly at business executive committee (Exco) meetings, quarterly at functional Exco meetings and annually through our letters of assurance, which require each business to provide an annual report of the operational and financial status of each site.

“ When a business’ performance improves, we move the goalposts to encourage it to do even better.

SIMON LAKER

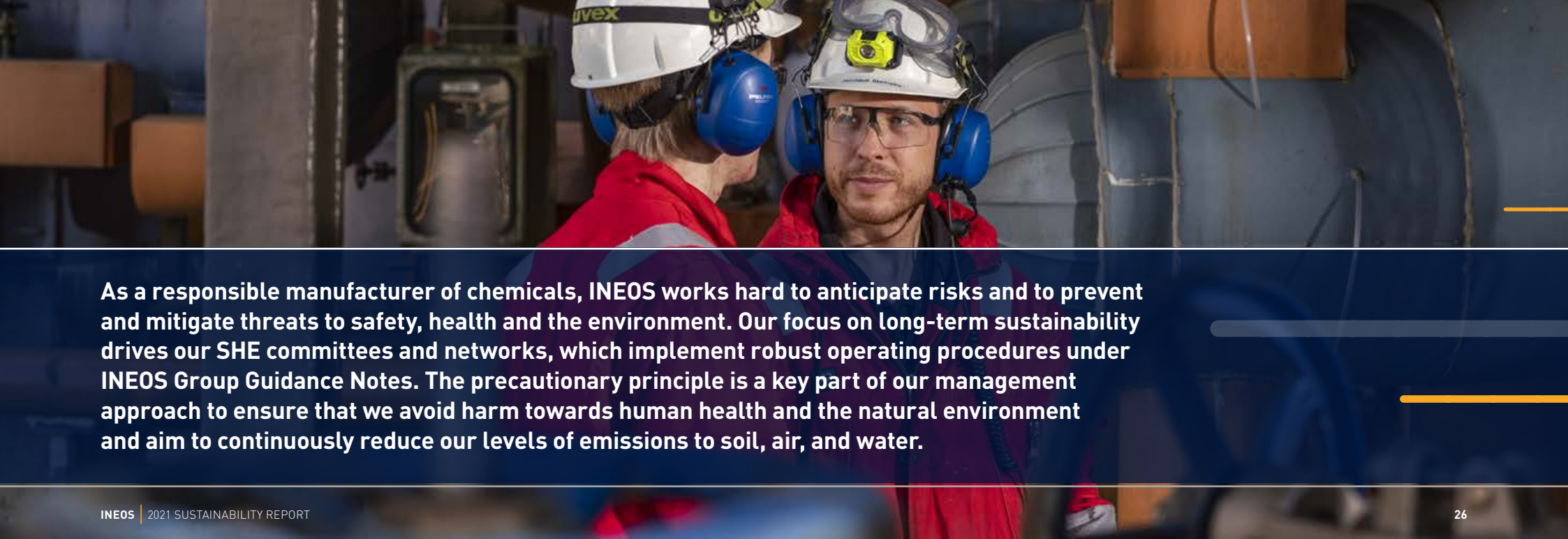
Group Operations Director
INEOS Group

Our approach to SHE meets and exceeds legislation. Safety targets are reflected across all businesses through our Code of Conduct and applied through our executive teams. SHE is an area that cuts across all INEOS businesses.

Although our safety record already ranks among the best in the industry, we believe there is always room for improvement. Our aim is to prevent all accidents and product spillages.

In our approach to SHE, we apply three broad principles:

- 1** We believe excellence in SHE performance can only be achieved if we are expert in what we do. We give our people and teams the training, development and support they need to become experts. On a yearly basis, this amounts to an average of 30 hours of training per employee. We share best practices and maintain understanding and knowledge so our employees remain at the top of their game.
- 2** We have rigorous principles and procedures in place which everyone who works on our sites must follow. We back this up with audits and checks, and make it clear that each INEOS employee is accountable for following these best practices.
- 3** We review our safety, health and environmental performance at every business team and monthly board meeting. It is the top priority for everyone in the company, from our owners to our technicians. Bonus pay is conditional on achieving our safety performance targets.

A photograph of two industrial workers in a factory setting. They are wearing white hard hats with blue earmuffs and safety glasses. The worker on the right is also wearing a yellow headlamp. They are both wearing red high-visibility jackets. The background shows industrial equipment and pipes.

As a responsible manufacturer of chemicals, INEOS works hard to anticipate risks and to prevent and mitigate threats to safety, health and the environment. Our focus on long-term sustainability drives our SHE committees and networks, which implement robust operating procedures under INEOS Group Guidance Notes. The precautionary principle is a key part of our management approach to ensure that we avoid harm towards human health and the natural environment and aim to continuously reduce our levels of emissions to soil, air, and water.

To make our approach clear, we have summarised our safety philosophy into what we call the **INEOS 20 Principles**. This company-wide management system addresses the safety of both people and plant operations. The safety principles apply to employees as well as contractors and are available in many languages on our website and intranet.

Behavioural Safety Principles

- 1** We believe all incidents and injuries can be prevented.
- 2** Everyone's first responsibility is to ensure they work safely.
- 3** Everyone has the duty to stop work if they feel the situation is unsafe.
- 4** The expectations and standards are the same for everyone on the site.
- 5** Rules and procedures must be observed and respected.
- 6** We should look out for each other's safety and unsafe situations.
- 7** All injuries and incidents / near misses must be reported and investigated.
- 8** Risk assessment must be carried out prior to, during and on completion of work.
- 9** All team leaders have a special responsibility for promoting and upholding these principles.
- 10** We must always work within the limit of our competency and training.

Process Safety Principles

- 1** The asset operating manager is responsible for its overall integrity.
- 2** The asset engineers are responsible for maintaining the asset and protective systems integrity.
- 3** The responsibilities in the organisation for defining and maintaining the correct operating envelopes must be clear.
- 4** Operating procedures and envelopes must be observed. Deviations must be reported and investigated.
- 5** Any changes must be properly risk assessed and subjected to MOC procedures.
- 6** Process hazards are systematically identified, risk assessed, reviewed and managed.
- 7** All assets must be subject to periodic inspection designed to ensure their integrity and the reliability of their protective systems.
- 8** Operations must always place the safe operation or shutdown of the asset ahead of production.
- 9** When in doubt the asset must always be taken to its safest state.
- 10** We have emergency plans based on assessed risks which are regularly tested.

Performance against these principles is audited yearly on every INEOS site. Opportunities for improvement are logged and actioned in short-term and longer-term plans.

These principles are supplemented by our **Life Saving Rules**, set out in one of the INEOS Group Guidance Notes (IGGNs). These are mandatory rules and must never be broken.

Life Saving Rules

- 1** No consumption or being under the influence of alcohol or drugs on company property.
- 2** No smoking outside dedicated smoking areas.
- 3** No work on live equipment/machines to commence without authorisation.
- 4** Safety critical devices/interlocks must not be disabled or overridden without authorisation.
- 5** Persons working at height must use proper fall protection.
- 6** No entry to confined space without authorisation and gas test.
- 7** Lifting/hoisting: no unauthorised person to enter the defined danger zone where objects can fall.

These seven simple but crucial life-saving rules were put in place to make every effort to avoid safety and health incidents.

Anyone found to be breaking any of these INEOS Group rules is immediately suspended from INEOS property pending an investigation.

If the person is found to have intentionally acted with negligence, they are automatically dismissed from INEOS employment, whether they are an employee or a third-party worker.

INEOS also has a 'near miss' reporting system, which is mandatory across all businesses, sites and employees, designed to identify, report and learn from issues or circumstances that could lead to unsafe conditions.

Across all our sites, we invest in continuous improvement of infrastructure and the working environment and we audit standards periodically.

Anyone arriving at INEOS manufacturing sites, whether employee, contractor, service

provider or visitor, receives at least basic SHE training. Additional training modules are available and mandatory if deemed necessary.

Although individual businesses take full responsibility for their own overall operation, INEOS applies common standards and practices across



safety, health and environmental performance. These are set out in more than 30 IGGNs, which cover, for example, rules for permits to work, equipment inspection, and change management.

All employees have access to the IGGNs through company intranets. Learning from any incident is communicated across the company through a system of alerts. Businesses apply the guidelines in line with their operational needs and configuration. Each year, site managers and operations directors sign off the Letters of Assurance for each of their manufacturing sites.

IGGNs meet and exceed ISO health and safety standards across the company.

“ Safety has always been our top priority, and that includes operating in a way that is safe for all our operating teams. Our excellent safety performance record is based upon having clear procedures and rules.

KRIS DEBOUTTE

Group SHE Reporting and
Global SHE Manager
INEOS Phenol and INEOS Nitriles

2.1.1 INEOS' health and safety performance

Over the past decade, the INEOS approach to safety has resulted in a fivefold decrease in the injury rate among employees and contractors. When it comes to safety, health and environment, we treat employees and contractors alike, which is why we report on their combined performance when working on our sites. In 2020 our OSHA (Occupational Safety and Health Administration) recordable injury rate of 0.17 injuries per 200,000 hours worked for employees and contractors combined is 'best in class' in our industry.

According to OSHA data in the US, this is five times lower than the industry average and over 10 times lower than the average seen in the utilities, construction and other manufacturing

industries. Nevertheless, we are constantly striving to better this. Our target is to achieve a zero injury rate and make every working day injury free.

Safe handling and containment of our chemicals and products is of critical importance to us. To monitor our performance, we have developed a measure to give us early warning of any risks and opportunities to improve. Each of the materials we use has a maximum legally permitted level at which its leakage into the environment is tolerated. However, leakage of materials to that level is extremely rare.

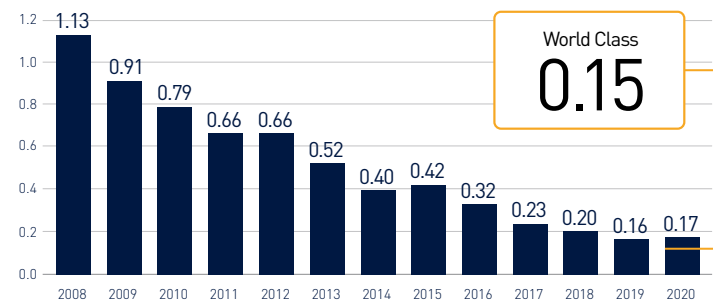
Our processes, operating procedures and working practices are all

designed to secure containment of all products and raw materials. The loss of containment of any materials is extremely rare but each has a level that is legally reportable to the authorities. We closely monitor all systems and we have internal reporting systems that trigger full internal investigation and reporting where there is any loss of containment that is 10% of the reportable level. We call these LOC 10's.

By sustained focus and continuous improvement, over the last eight years we have reduced the frequency of these minor losses by over a factor of four. Additionally, in 2020, zero fatalities were reported across all INEOS sites.

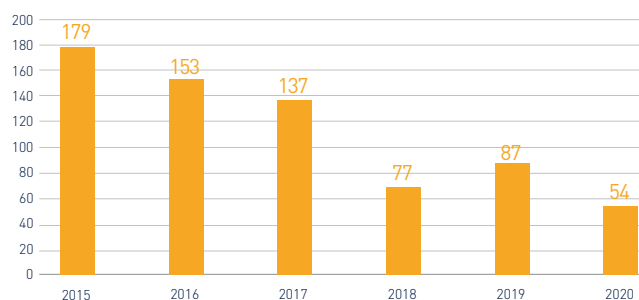
INEOS safety performance

OSHA Recordable Rate per 200,000 hrs
Employees + Contractors



INEOS environmental measure

LOC 10



2.1.2 Responsible care and product stewardship

Over and above our own SHE standards and guidelines, INEOS is a signatory to the International Council of Chemical Associations' (ICCA) Responsible Care Global Charter.

Signing the charter is part of our commitment to strengthening chemicals management systems,

safeguarding people and the environment, and working towards sustainable solutions through our value chain.

By following the guidelines and measures of Responsible Care® we commit to safely conducting our business in an ethical and environmentally responsible manner, providing the foundation for development and capital investments.

INEOS also adopts a comprehensive approach to product stewardship, so that our products enter and move along the supply chain to the customer in a safe and ethical manner. We work with our customers to ensure they have the information, procedures and facilities to receive, store, and use products safely.



2.1.3 Compliance with REACH

In line with its SHE culture, INEOS is committed to fulfilling the REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) obligations. They ensure that companies manage the risks associated with their products and provide customers with the information they need to handle them in a safe and sustainable way.



INEOS often goes beyond REACH in the stewardship we apply to our products across all markets. The INEOS approach to product stewardship is managed by a company-wide REACH network and includes the following:

- A global management system to deliver excellence in product stewardship and meet required local, regional and business-specific standards.
- Continual improvement of products to avoid potential problems before they become human or environmental hazards.

- Hazard identification systems that take advantage of available information.
- Risk-based process for identifying, understanding and prioritising concerns and managing chemicals in commerce.
- Risk reduction measures, including limitations on use or even phase-outs of specific uses of chemicals where unacceptable risks are not otherwise manageable in a manner that is appropriate for the risks and mindful of the benefits of a particular chemical in the context of its use.
- Transparent flow of information throughout the value chain (e.g. suppliers, manufacturers, customers, waste vendors, etc.), so that manufacturers and users can understand and manage risk and provide meaningful and relevant information to their respective stakeholders.
- Public availability of hazard, exposure and risk information.



peration Clean Sweep®

INEOS is a signatory of Operation Clean Sweep (OCS) a voluntary stewardship programme of the Plastics Industry Association and the American Chemistry Council.

INEOS applies this commitment to achieve zero pellet, flake and powder loss across its sites and supply chain. INEOS is committed to keeping this material out of the marine environment.

Actions are taken across our polymer plants to prevent pellet loss on all our sites, especially in wastewater streams.

INEOS continuously improves its performance by installing pellet containment measures such as filters, water separators, extractors, air blowers, and rumble strips. It also demands training of truck drivers and hauliers and includes clauses in supply chain contracts to commit to the Clean Sweep principles.

The 6 commitments of OCS in Europe

By signing the OCS pledges, each pellet-handling company recognises the importance of preventing spillages into the environment and commits to the following six actions:

1. improve worksite set-up to prevent and address spills,
2. create and publish internal procedures to achieve zero industrial plastic material loss,
3. provide employee training and accountability for spill prevention, containment, clean-up and disposal,
4. audit performance regularly,
5. comply with all applicable state and local regulations governing industrial plastics containment,
6. encourage partners (contractors, transporters, distributors, etc.) to pursue the same goals.

2.1.4 Water management and use

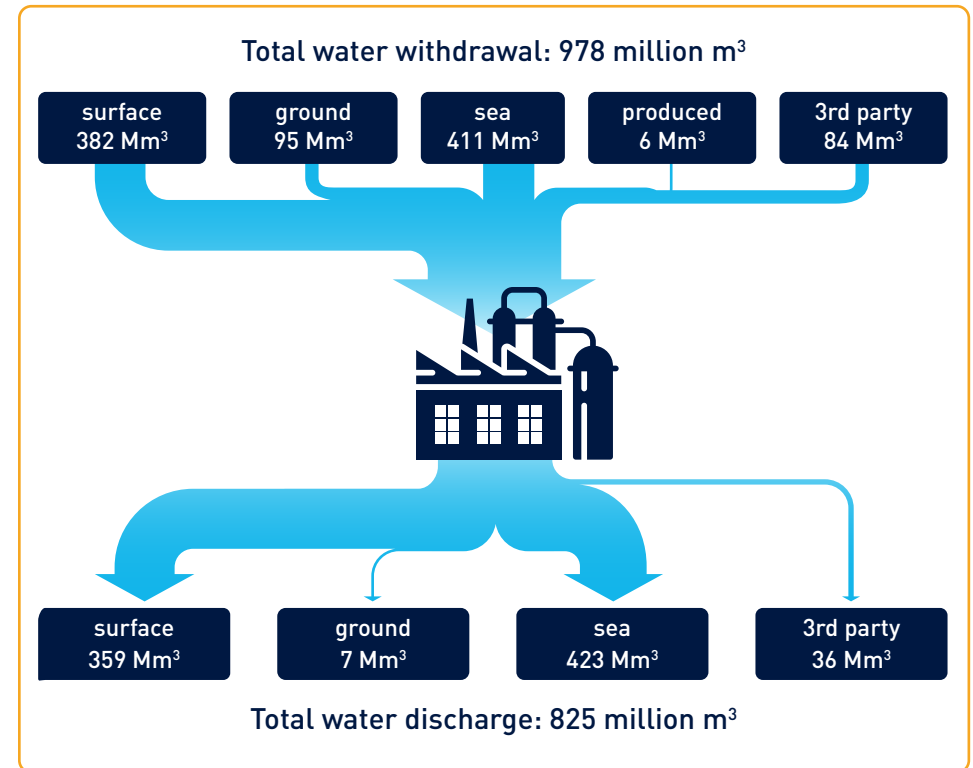
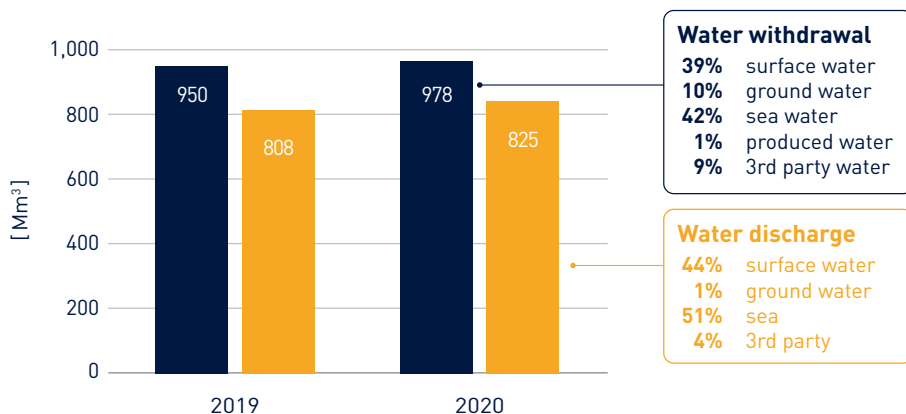
INEOS ensures that water sourcing, treatment and discharge complies with international and local regulations and has extensive measures in place to monitor, manage and minimise water use. This protects the natural environment and helps secure the safety, health and wellbeing of our employees and people who live and work close to our sites.

Our water footprint includes both process and cooling water. By definition, process water comes into contact with our products and can be either reused or sent to an on-site or off-site wastewater treatment facility. Cooling water does not come into

direct contact with the products; therefore, avoiding organic contamination. Regardless of regional differences, the use and discharge of process and cooling water are strictly monitored by quantity and quality and compliant with local standards.

Water withdrawal and discharge are heavily regulated, and it is anticipated that requirements will become even stricter as policymakers seek to address chemicals in the environment as well as global water scarcity. We closely monitor data from all INEOS production sites to optimise our water strategy.

Water withdrawal and discharge across all businesses worldwide



Best available technologies, such as closed-loop water systems and procedures to reuse process water or condensates onsite or at neighbouring production plants, are standard practice at INEOS sites.

Production across INEOS facilities was consistent between 2019 and

2020. The withdrawal and discharge of water showed a slight increase of approximately 3% in 2020. Withdrawals of surface water and sea water account for 39% and 42%, respectively.

Monitoring and preventing groundwater contamination

Local and national regulations on groundwater contamination are strictly enforced across all INEOS sites.

For example:

- At our sites in Germany an initial state report has to be prepared in accordance with the European Industrial Emissions Directive, to define the reference state of the groundwater and assess the current state of specific substances,
- Our sites in Belgium adhere to the Flemish legislation which requires monitoring of the groundwater on a regular basis,
- Our US sites perform groundwater monitoring to detect any potential contamination issue if a site has a permitted disposal facility.

To prevent groundwater contamination, strict measures are in place at all INEOS sites.

Remediation is according to the rules stipulated by the authorities and in the INEOS IGGNs.

For example:

- Installing storage tanks and loading/unloading facilities in bunds,
- Using impervious floors, kerbing and bunding,
- Building process units on concrete with dedicated sewage facilities. In case of leaks, we have direct actions and procedures in place.

Equipment upgrades and audits

Reducing water consumption is one of INEOS' targets as an essential element in the design and retrofit of our plants.

For example:

- In Hull (UK), one major water consumer is the cooling tower. An online system has been put in place to analyse the composition of the product and minimise the blowdown in the cooling tower,
- Other water reduction examples include the use of reverse osmosis for make-up water in cooling water systems (Doel, Belgium), reduction of cooling water by optimising the osmosis plant (Rosignano, Italy) and substituting water jets (Marl, Germany).

Wastewater reuse

INEOS is putting plans in place to reduce its water footprint and contribute to responsible water care. One of the most efficient ways of doing so is reusing process water. Due to the nature of chemical processes, wastewater is nearly always contaminated, but the INEOS sites are optimised to reuse wastewater streams until no further use is possible.

For example:

- Purifying process water in the ethanol recovery and recycling back into other processes (Hull, UK),
- Minimising wastewater treatment by recycling process water (Doel, Belgium),
- Caustic soda dilution using wastewater (Gladbeck, Germany),
- Feeding process purge water into cooling towers (Feluy, Belgium).



2.1.5 Management of waste

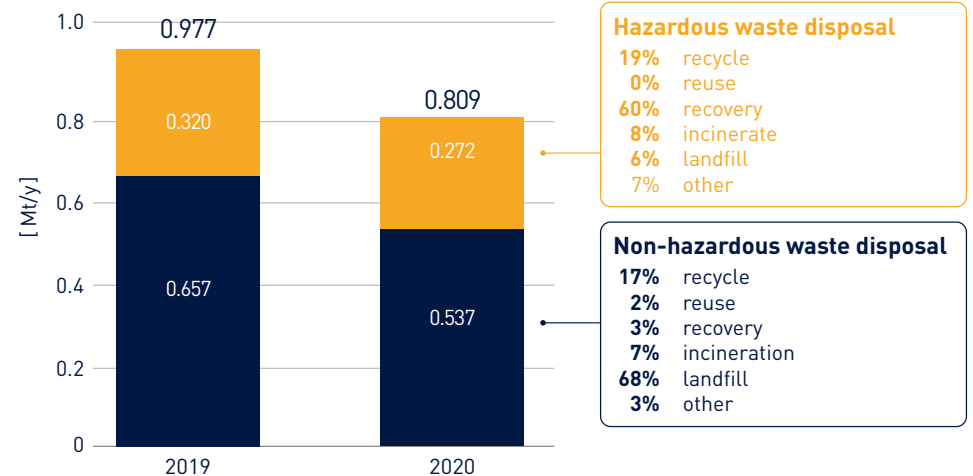
INEOS has an extensive list of measures in place to monitor and reduce pollution, hazardous materials and waste. This protects the natural environment, in compliance with national regulations, and helps secure the safety, health and wellbeing of our employees, contractors and people who live and work close to our sites.

At each INEOS site worldwide, waste is handled in full compliance with the local regulations. For INEOS Group, waste data are also monitored as part of the CEN annual data collection. Site and business material profiles lead

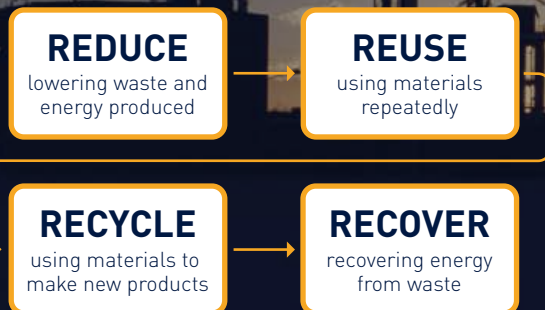
to waste and pollution management: reduction of waste, air pollution, soil, odour and noise management, and handling of hazardous materials.

In comparison to 2019, INEOS reduced its waste generation by about 17% in 2020 while maintaining similar production levels. Changes at site and business level are mainly due to one-off events, turnarounds, maintenance and construction projects. As part of our transparency strategy and alignment with international reporting standards, we now monitor 6 waste disposal categories compared to the previous years.

Waste generated across all businesses worldwide



4 R's



Reducing, reusing and recycling waste is standard practice across our business and sites. When onsite recycling or reuse is not possible, by-products are often reused by third parties. Remaining waste that cannot be reused is shipped to specialist waste treatment facilities. Stringent procedures and safety checklists are standard at all sites. All personnel working with, handling or transporting hazardous materials and waste are required to have proof of the appropriate specialist training.



Monitoring and tracking our waste footprint

We track INEOS' waste footprint and implement best practice to prevent loss of containment.

For example:

- Creating waste management programmes and minimisation plans at all INEOS sites,
- Minimising plastic pellet loss at all polymer sites under the Operation Clean Sweep initiative,
- Testing, sampling and analysis of waste via approved analysis methods at our sites in the US,
- Handling hazardous waste according to the REACH guidelines and classifying our waste corresponding to the local regulations,

- Monitoring and management of soil contamination following the local regulations e.g. VLAREM (Flemish environmental legislation) in Belgium and brownfield management rules in Germany.

Deriving value from waste and by-products

We investigate and implement opportunities to derive value from waste and by-products at our sites.

For example:

- Reusing co-products onsite or exporting them as raw material to third parties at many INEOS sites,
- Selling waste as by-product to be recycled or reused as refuse derived fuel at INEOS Compounds,
- Achieving almost 100% waste recovery at INEOS Automotive by

strictly monitoring the loading, unloading of hazardous materials in compliance with the ADR regulation,

- Using waste heat to evaporate liquid ethylene from storage tanks and deliver to the distribution network at INEOS Oxide,
- Developing tools to facilitate industrial symbiosis e.g. at Hull (UK) as a result of the European Horizon 2020 project (EPOS),
- Following the 4Rs principle for hazardous waste management at all sites, more than 80% of our hazardous waste is reused or recycled in our processes or recovered as energy.

Reducing and recycling end-of-life waste

We work to reduce end-of-life

waste associated with our products, setting recyclability and recycled content targets.

For example:

- Investing in advanced recycling technologies at our INEOS O&P US, Styrolution and Aromatics sites e.g. Investment in new advanced recycling technology such as the INFANIA pilot plant to recycle previously non-recycleable colours of PET,
- Implementing strong waste handling systems established together with local waste handling companies at INEOS O&P North,
- At our sites worldwide non-hazardous waste fractions are collected separately and sent for recycling at external parties.

2.2 CLIMATE: HELPING TO DELIVER A NET ZERO EMISSION ECONOMY BY 2050



INEOS is taking concrete actions to create meaningful and measurable near and long-term reductions to its

GHG footprint. At the same time, it is positioning itself to take advantage of new opportunities offered by this evolving energy and climate environment by pursuing the following initiatives:

- acquisition of renewable energy sources to run our operations,
- development of clean hydrogen as a fuel,
- use of recycled and bio-based feedstocks instead of fossil-based resources,
- continuous process optimisation,
- capture and transfer, use or storage of carbon dioxide (CO₂),
- development of new recycling technologies to produce polymer products containing recycled plastics,
- partnering up with our supply chain to reduce emissions,
- investment in new assets to create a step change in reduced emissions.

Each INEOS business applies a consistent and scientific methodology to build emission reduction roadmaps for each of its sites.

Material topics covered:

- **Climate change**
- **Circular economy**
- **Hydrogen economy**
- **Carbon neutrality**
- **GHG emissions management**
- **Energy management**
- **Sustainable procurement**



INEOS monitors emission data and reports greenhouse gas and other air emissions on an annual basis according to internationally recognised standards to track its progress.

2.2.1 GHG emissions

Using the verified INEOS science base, our 2020 GHG footprint is 19.9 Mt CO₂-eq (including CH₄, N₂O and HFCs emissions). This is divided into 13.7 Mt CO₂-eq direct emissions (69%) and 6.2 Mt CO₂-eq indirect emissions (31%).

Our footprint discounts the CO₂ that is captured at our sites and transferred to third parties which amounted to 0.3 Mt in 2020. It also excludes 1 Mt CO₂-eq of emissions associated with exported energy streams that are used by third parties either directly in chemical parks or via grid connection; the third parties report the energy import in their respective scope 2 footprints. [A detailed GHG inventory according to the GHG protocol is disclosed on our website.](#)

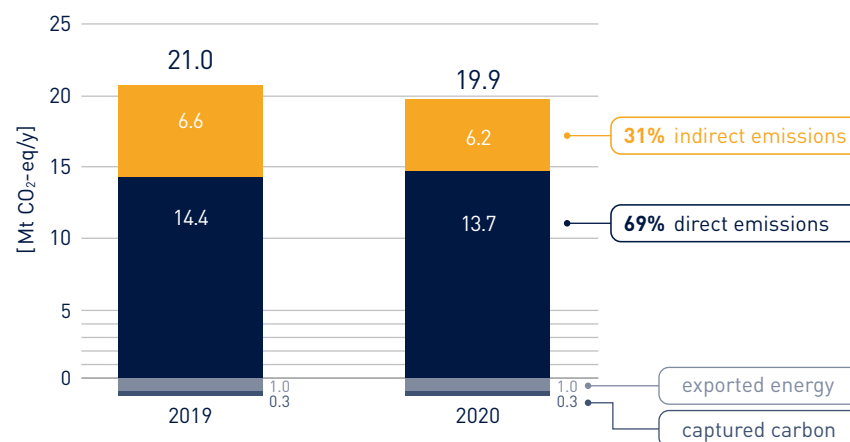
When only considering production sites, INEOS' carbon footprint is 17.6 Mt. This reduced figure excludes refining, exploration and production of oil and gas, production of brine, trading and shipping, and pipeline activities. It is used to calculate intensities based on chemicals manufactured. 2.3 Mt CO₂-eq can be allocated to the INEOS businesses IOG, ITS, FPS, the JV Petroineos (50% INEOS) and brine production.

INEOS' carbon footprint in 2020 is 5% lower than 2019, although production remained constant. In addition to ongoing emission reduction strategies, year-on-year differences can also be explained by major turnarounds and unit outages in 2020 versus operational issues in 2019, and lower throughputs at some major sites due to COVID19.

We assess and implement abatement opportunities, such as

carbon capture (e.g. Lavéra and Tavaux in France, Antwerp in Belgium, Köln in Germany) and storage (Greensand in Denmark, AntwerpØC in Belgium, Acorn in the UK, and Houston in the US), green power purchase via Power Purchase Agreements (PPAs) in Belgium, hydrogen co-fuelling and continuous process optimisation at all INEOS sites.

GHG footprint



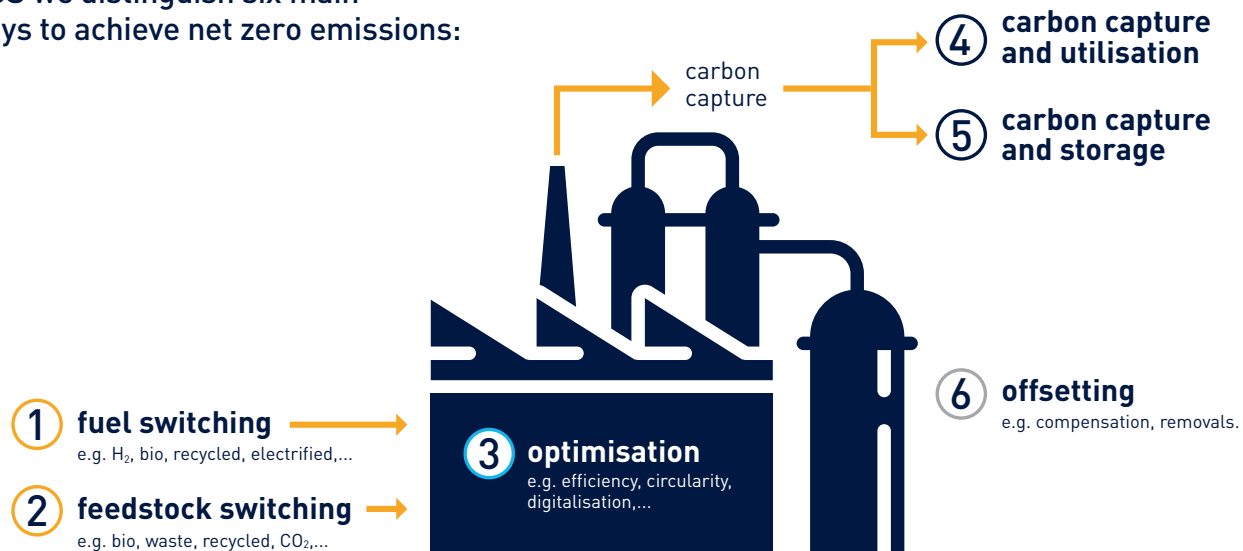
net zero by 2050

2.2.2 Our pathways and roadmaps

Solid environmental data collection and a fixed reference year play an important role in defining emission reduction pathways and setting priority targets at INEOS sites when drawing up 2030 and 2050 roadmaps.

Based on the roadmaps developed to date, **we will achieve a reduction of over 10% by 2025 and over 33% by 2030**, against 2019 emissions; the one third marker on the road to net zero. We will spend over €6 billion to back our plans. Our site roadmap initiative and 2030 investment plans aim to drive down our GHG emissions to set realistic and achievable targets towards net zero by 2050, whilst remaining profitable. We will not make pledges that we cannot support with real world action plans.

At INEOS we distinguish six main pathways to achieve net zero emissions:



2.2.3 Energy sources to run our operations

Energy sourcing is a key driver of emissions reduction and has a significant impact on our GHG footprint. INEOS collects and analyses energy data for each site, business and company-wide, providing a comprehensive overview of energy use across all sites. The system enables detailed energy management and planning through process optimisation and fuel switching. Energy reduction and substitution measures are a key part of the roadmaps at each INEOS site.

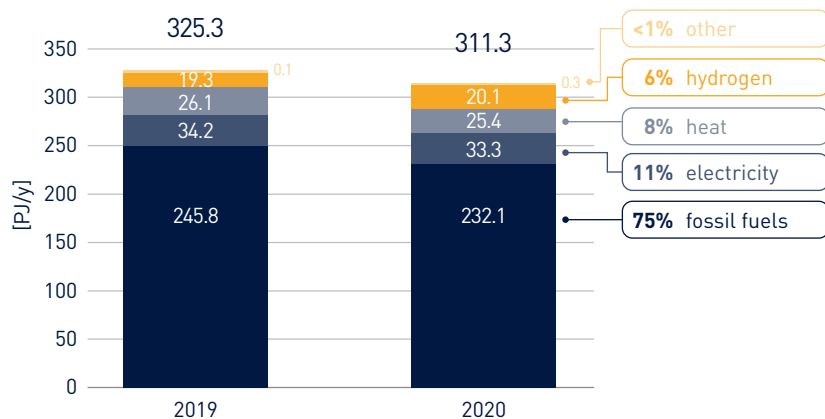
The energy intensity value per tonne of product manufactured at INEOS production sites (excluding refining,

exploration and production of oil and gas, brine, trading and shipping and pipeline activities) stood at 7.72 GJ/t in 2020. The energy intensity per tonne of product 'sold' in 2020 was 7.80 GJ/t.

INEOS reduced its energy footprint by about 4% in 2020 while running at similar production levels.

As part of our 2030 emission reduction strategy, we continuously investigate and implement measures to switch to cleaner energy sources, such as hydrogen co-fuelling, or the use of biogas to replace natural gas, in addition to procuring green power through further PPAs.

Energy footprint



Clean energy sources

Most INEOS sites use clean energy either from the local electricity mix or from its own investment in green power (wind turbines, solar panels), through biomass or landfill gas as fuel for power plants (Chocolate Bayou, US), by purchasing bio-based steam (Doel, Belgium) or by co-fuelling with H₂ (Köln, Germany). Some sites have invested in electrical site cars to promote low-carbon energy sources (Lavéra, France).

INEOS plans to continue its engagement in PPAs and significantly invest in the production of hydrogen. It is expected that this will enable INEOS to substantially reduce its emissions towards its 2050 goal.

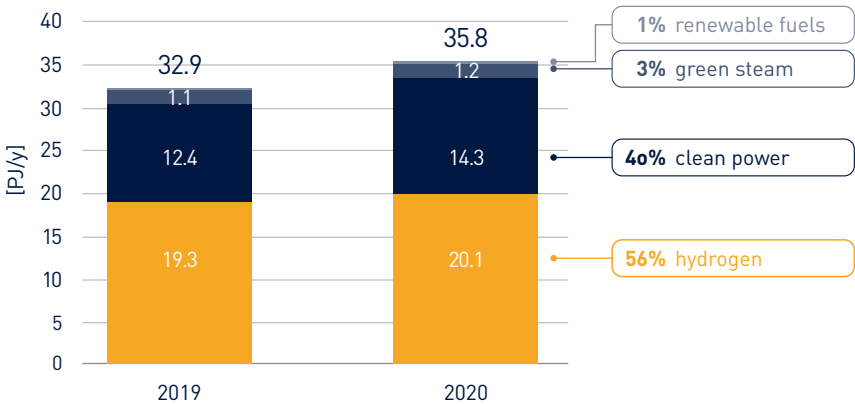
Clean energy made up 11% of INEOS' energy consumption in 2020, up from 10% in 2019. Of this hydrogen makes up the largest part (56%), followed by clean power (40%) purchased from the grid. The majority of INEOS' H₂ consumption results from self-generation, mostly mixed with other process off-gasses. The green PPA deals that INEOS has closed are effective from 2021 and will become visible in the 2021 data.

To engage further in the hydrogen market, INEOS has launched a new business within INOVYN to develop clean hydrogen capacity across Europe. Fuel switch from natural gas to hydrogen and renewable fuels is considered at several sites,

as an integral part of their at source emission reduction strategy. INEOS continues to investigate opportunities to procure further green power

through green portfolios from grid suppliers or green certificate schemes such as Guarantees of Origin (GoOs).

Clean energy consumption breakdown



Case study: INEOS in Köln energy efficiency dashboards show saving potentials

The most resource efficient operation of production plants is not easy to identify under varying operating conditions.

Energy efficient dashboards provide an operator support tool and an approach for increasing production efficiency. It provides hints and reasons for suboptimal process operation and allows operators to make decisions to optimise the energy and resource efficiency of the plants.

Based on big data analysis the most resource efficient plant operations are visualised. Statistical methods are used to guide operators to the root causes of deviations from the most efficient operation. The implementation of the dashboard has saved 5% of the total steam consumption in process plants on the Köln site.

The beauty of this tool is its transparency, intuition, and simplicity. All three elements lead to user acceptance.

“ I have been involved in this project, which at that time was a European research program CoPro since 2018. It's really formidable that the core programming is generic and easily transferable to other industry sectors.

PATRICK SCHIERMOCH

Specialist for Energy Management Systems, INEOS Olefins & Polymers Europe North



2.2.4 Development of clean hydrogen as a fuel

INEOS actively participates in innovation projects with a focus on fuel and feedstock switching to reduce carbon emissions. The development and implementation of new industrial tools and technologies are also a priority in achieving this goal.

Like many governments around the world, INEOS believes that hydrogen will be the fuel of the future, essential for the transition to a zero emissions economy.

INEOS is already Europe's largest operator of electrolysis technology across its chemicals business. It also owns and operates H₂ storage infrastructure. The two combined can help buffer the intermittency of renewable energy.

As a producer and user of hydrogen, it is in a unique position to be able to use its existing co-produced hydrogen to kickstart the transition of the emerging hydrogen economy.

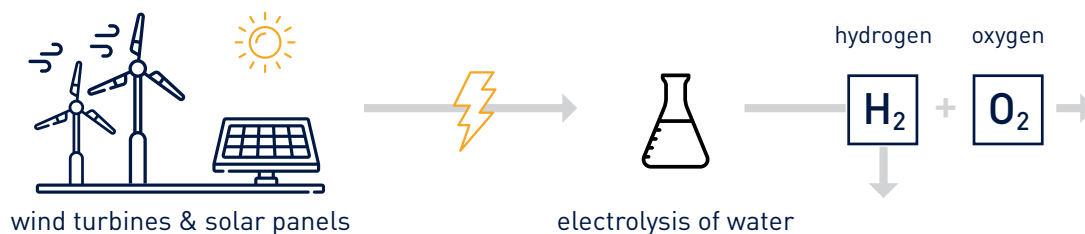
INEOS produces around 400,000 tonnes of hydrogen each year, enough to fuel 300 million miles of heavy goods vehicle travel. This is the equivalent of 12,000 trucks circumnavigating the world.

Clean hydrogen will provide zero emission power for industry and homes and meet the growing demand for hydrogen fuelled vehicles.

Green hydrogen represents one of our best chances to create a more sustainable and low carbon world. Europe is crying out for more investment in green hydrogen and INEOS' announcement shows our determination to play a leading role in this important new fuel.

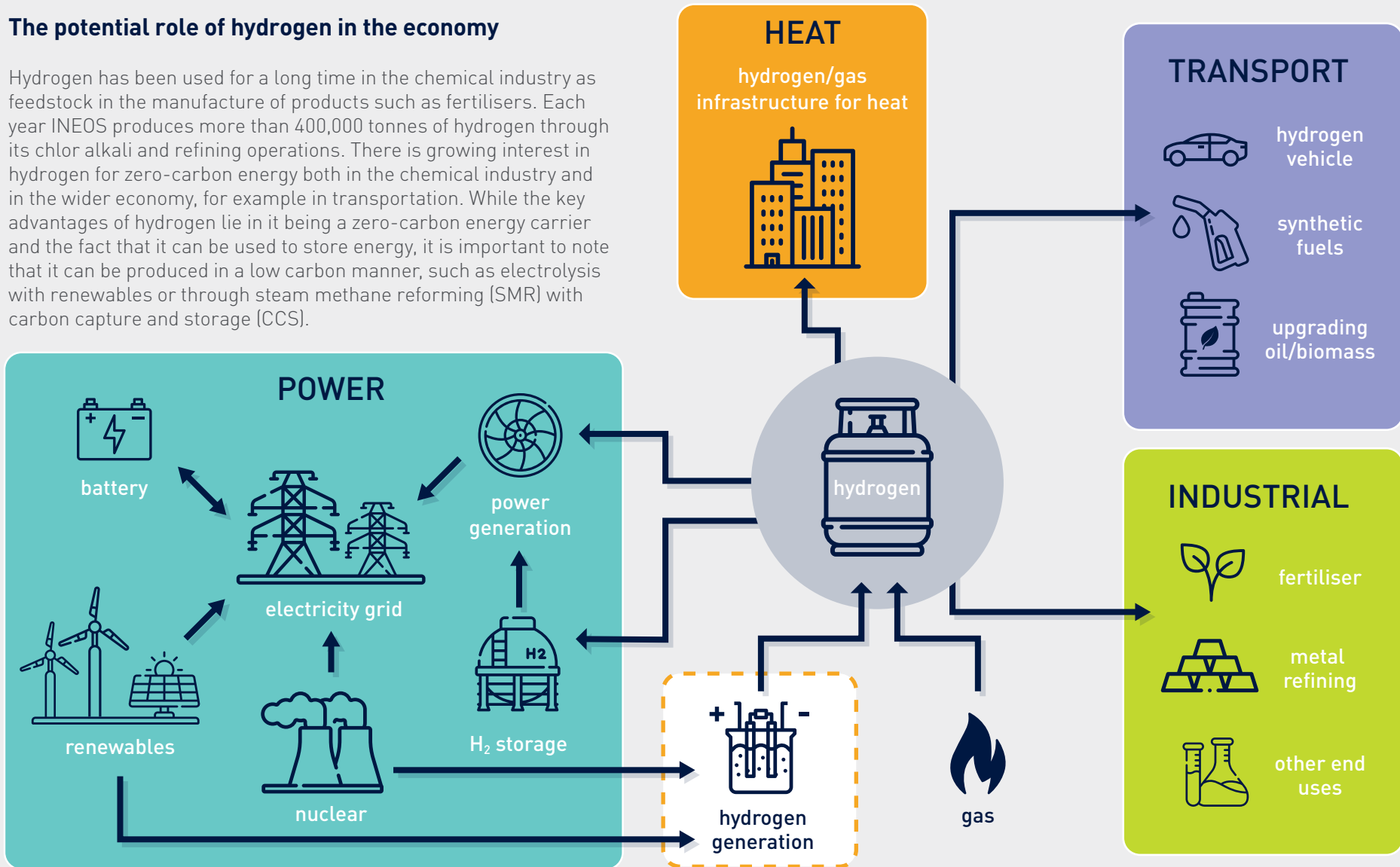
SIR JIM RATCLIFFE
INEOS Chairman

The production of green hydrogen



The potential role of hydrogen in the economy

Hydrogen has been used for a long time in the chemical industry as feedstock in the manufacture of products such as fertilisers. Each year INEOS produces more than 400,000 tonnes of hydrogen through its chlor alkali and refining operations. There is growing interest in hydrogen for zero-carbon energy both in the chemical industry and in the wider economy, for example in transportation. While the key advantages of hydrogen lie in it being a zero-carbon energy carrier and the fact that it can be used to store energy, it is important to note that it can be produced in a low carbon manner, such as electrolysis with renewables or through steam methane reforming (SMR) with carbon capture and storage (CCS).



“ This test is fully in line with INEOS' strategy to avoid CO₂ emissions at source. It marks a further step for INEOS Phenol in Doel, where 20% green steam is already being purchased via the connection to the Ecluse network, in the Port of Antwerp.

HANS CASIER

CEO, INEOS Phenol and INEOS Nitriles

Case study: Hydrogen as fuel, a first in Belgium

For the first time in Belgium, hydrogen has been used in a commercial scale cogeneration plant designed to generate electricity and heat from natural gas. The aim of the pilot project by INEOS and ENGIE was to replace natural gas with hydrogen used by the INEOS gas turbine.

Initially 10% of the gas feed was replaced by hydrogen. Since it went well the feed was increased to 20%. This is the first time that such tests have been carried out on an industrial scale in Belgium. The CHP plant at the INEOS Phenol site in Doel, one of the first to be built

in Belgium, has the ideal profile to realise this test.

Hydrogen is expected to become an important link in the transition towards climate-neutral energy across society. One possible evolution in the coming decades is the gradual replacement

of natural gas by hydrogen. This will gradually reduce the CO₂ emissions of current processes operating on natural gas.

[Read more...](#)

Case study: Clean hydrogen to support decarbonisation in Norway

INOVYN, the wholly owned subsidiary of INEOS, plans to build a 20MW electrolyser to produce clean hydrogen through the electrolysis of water, powered by zero-carbon electricity. This project will lead to a minimum reduction of an estimated 22,000 tonnes of CO₂ per year by reducing the carbon footprint of INEOS' operations in Norway and serving as a hub to provide hydrogen to the Norwegian transport sector.

Today, INEOS already produces 400,000 tons of hydrogen on an annual basis as a co-product of our chemical processes. This hydrogen is largely used as a low-carbon fuel, and as a raw material in our own production processes to reduce fossil use.

[Read more...](#)

“ The EU and National Governments have clear targets towards the widespread utilisation of hydrogen across Europe by 2030. With INOVYN's experience in electrolysis technology and our growing portfolio of hydrogen projects, using clean hydrogen to accelerate decarbonisation of energy will drive progress towards a low-carbon future.

GEIR TUFT
CEO, INOVYN

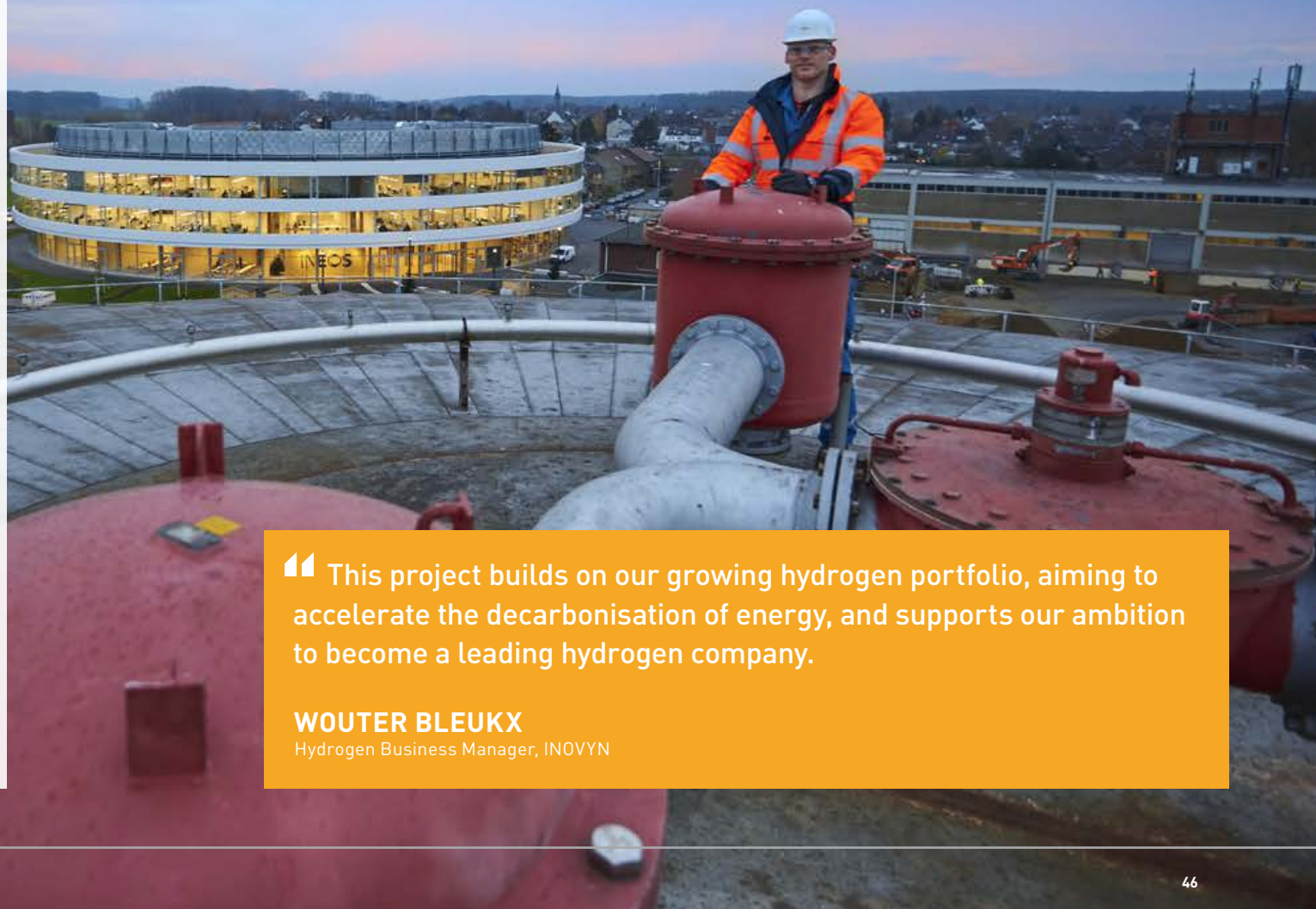
Case study: Net zero by 2045 in Germany accelerated by green hydrogen project

As a first step of the project, INEOS will produce green hydrogen to feed into its own green ammonia production – to serve green fuel applications. Given the scale of ammonia production by industry worldwide, a move towards green ammonia has the potential to reduce global emissions by as much as 1% each year. This development, by INEOS Nitriles, initiates the transition towards achieving a low-carbon future within the chemical industry.

The project could also lead to the development of further industrial scale production of E-Fuels through Power-to-Methanol applications at INEOS Köln site. Through this process, the development will further decarbonise chemical value chains through the use of carbon capture, in combination with green hydrogen, in order to produce sustainable methanol and its derivatives.

The green hydrogen project aims to reduce direct and indirect carbon emissions by over 120,000 tonnes per year, taking sustainability to the next level by progressing towards a complete use of resources.

[Read more...](#)



“ This project builds on our growing hydrogen portfolio, aiming to accelerate the decarbonisation of energy, and supports our ambition to become a leading hydrogen company.

WOUTER BLEUKX

Hydrogen Business Manager, INOVYN

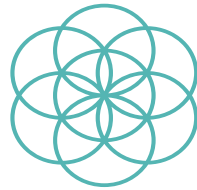
2.2.5 Use of recycled and bio-based feedstocks instead of fossil-based resources

INEOS has demonstrated the use of recycled and bio based products to replace fossil-based raw materials at commercial scale through its olefin plants in Köln (Germany).

The biomass, which is derived from a renewable residue of the wood pulping process does not compete with food production, has been successfully converted into bio-olefins.

These bio-based products have now been introduced by INEOS Olefins &

Polymers Europe into a range of bio-attributed polymers. Each step in the supply chain has been fully certified by the Roundtable on Sustainable Biomaterials (RSB) to track the renewable materials and ensure their sustainability. The final product



CERTIFIED BY
RSB
Roundtable on
Sustainable Biomaterials
www.rsb.org

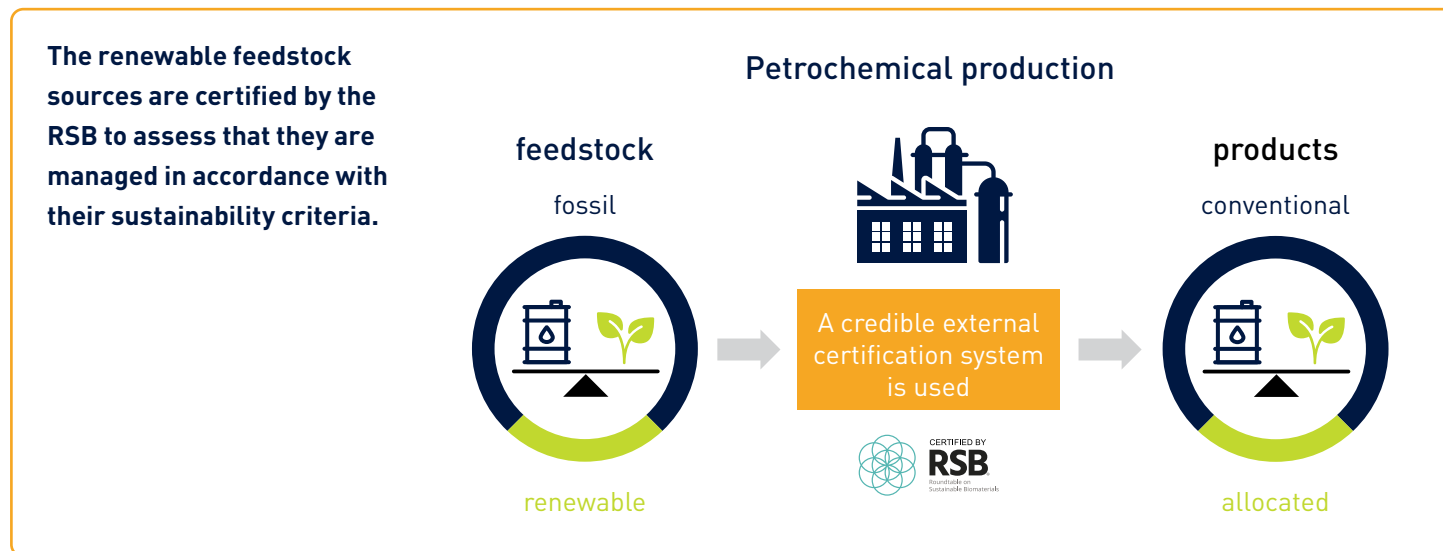
carries an attribution according to the displacement of fossil fuel-derived raw materials.

The RSB process also tracks and measures the GHG saving through the life cycle of the product. The INEOS bio-attributed polyolefins can be made with 100% substitution of bio-feedstock and provide significant GHG savings. It results in products which have a proven positive impact on the environment without sacrificing product performance.

“We are very proud to have achieved RSB certification of Olefins and Polyolefins from our Köln site. Being able to offer bio-attributed olefins and polymers represents another concrete step for INEOS along the path towards a more circular and sustainable economy.”

LIZ RITTWEGER

Business Director
INEOS Olefins & Polymers Europe



2.2.6 Continuous process optimisation

Continuous improvement in efficiency and reduction of energy use and carbon emissions is standard practice across INEOS. Sites sign up to energy management systems such as ISO 50001, EMAS in Europe, ESOS in the UK and EBO in Flanders, and have regular energy audits in compliance with our IGGNs. This approach supports a cleaner environment, reduces our energy use, and makes our business more sustainable.

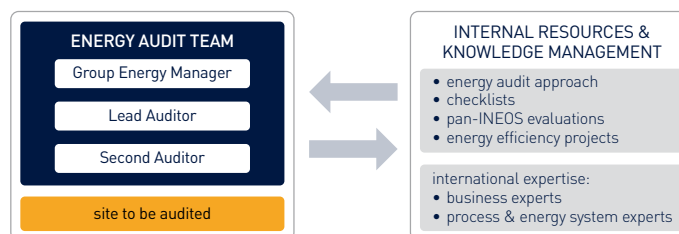
Projects vary widely from finding new ways of improving process efficiency to innovative solutions for heat or power integration or more selective catalysts for processes.

Each INEOS site is measured against the previous years emissions, other production sites in the business, and its profile in a country. Emissions data for each business are compared against all INEOS businesses. The data also make it possible to compare sites and units, suggest reduction pathways, prioritise at source or end of pipe solutions, set targets and track progress against roadmaps.

Each site monitors and reports carbon and energy data in compliance with local rules.

A combination of metering, sampling and analysis is used to achieve a 'top tier' level of compliance. Site monitoring plans are verified according to local standards through environmental permitting as well as impact assessments by INEOS site management teams or local authorities.

Energy audit preparation & on site workshops



INEOS' global carbon and energy footprint is reviewed twice a year by all CEOs. Based on 2019 data, site-based action plans have been drawn up to reduce GHG emissions.

At INEOS, carbon and energy performance is driven by process efficiency. Site optimisation plans are made and discussed on a regular basis and result in typical reduction measures.

For example:

- efficiency of power plants,
- optimisation of steam networks,
- electrification of low-temperature equipment,
- recovery and reuse of off-gasses in utilities,
- reduction of flaring,
- cooling automation,
- advanced process control (e.g. distillation columns),
- catalyst improvements.

Site actions that enhance energy performance (e.g. heat integration) often also result in decreasing GHG emissions.



Case study: Leading the transition to a more sustainable polyester industry

INEOS Aromatics produces Purified Terephthalic Acid (PTA), which the polyester industry uses to make household items such as clothes, furniture and food packaging. The business introduced latest generation PTA technology in its Zhuhai, China, facility in 2015 that reduced greenhouse gas emissions by 65%, water discharge by 75% and solid waste disposal by 95%, compared to conventional technologies. Which not only helps to make the industry more sustainable, but contributes to China's 2060 carbon-neutral objective.

These differentiated pieces of equipment were later installed in its production facilities in Geel, Belgium, and Cooper River in South Carolina, USA, creating the world's most efficient PTA manufacturing network.

[Read more...](#)

“INEOS Aromatics has been developing technologies that help the polyester industry to become more sustainable for some time. That continues to this day, with the development of the Infinia PET recycling technology. We look forward to leveraging our role as a new member of INEOS, a global chemical manufacturing leader, to continue leading our industry towards a more sustainable future.

BILL ZHAO

Business Director, INEOS Aromatics Asia

2.2.7 Capture and utilisation or storage of carbon dioxide

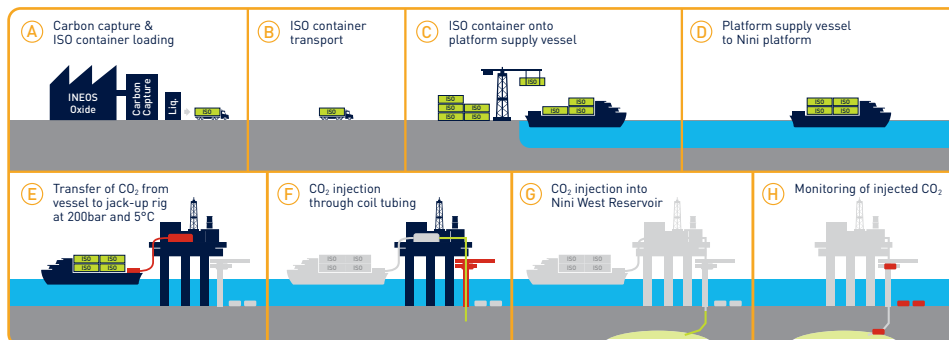
Although it is INEOS' goal is to cut emissions at source, we recognise that CCS will still play an important role in mitigating GHG emissions in the short run, and utilising captured carbon (CCU) in the long run. Indeed, we already operate carbon capture at several INEOS sites.

Over the past 2 decades, INEOS has been capturing GHG emissions at plants in Antwerp (Belgium), Tavaux and Lavéra (France), and Köln (Germany), removing over one million tonnes of CO₂ – equivalent to the annual emissions from 100,000 cars. We are also leading the Greensand pilot project in Denmark where we plan to repurpose our depleted oil field to a permanent CO₂ storage facility.

Our ultimate goal is to capture carbon dioxide and derive value from it. We are working with partners in the port of Antwerp to build a demonstration plant to make clean fuel from captured CO₂ and green hydrogen. The project will use INEOS' expertise in electrolysis, hydrogen, and carbon capture, and if successful will be a breakthrough in the path towards large scale production of zero emission liquid fuels.

In Scotland INEOS is part of the Acorn project and the US it is one of 11 companies supporting a large-scale deployment of carbon capture and storage to help decarbonise industrial facilities in and around Houston.

Greensand CCS pilot



Greensand has brought together a strong consortium of 29 companies. The project will permanently store up to 90% of CO₂ from power plants, steel foundries, and cement plants.

MADS WENG GADE
Commercial Director, INEOS Energy

Case study: Port of Antwerp as the carbon capture pioneer

Port of Antwerp is home to the largest integrated energy and chemicals cluster in Europe. This makes it the ideal location to set up new, cross-border collaboration projects for innovative CO₂ reduction.

Antwerp@C brings together the Port of Antwerp and seven leading chemical and energy companies with the aim of reducing CO₂ emissions and take practical steps in the transition to a sustainable, low-carbon region.

The project has verified the technical and economic feasibility of building CO₂ infrastructure to support applications of CCS and eventually also utilisation of CO₂ - i.e. reusing it as a raw material for the chemical industry.

The project has the potential to reduce the CO₂ emissions across the region by half in 2030, from 18 to 9 million tonnes.

[Read more...](#)



“ Once operational, the carbon capture and storage system will provide an essential route to permanently and safely capture and store CO₂ emissions for large industrial emitters throughout Scotland with significant positive impact for climate change and the country.

ANDREW GARDNER
Chairman, INEOS Grangemouth

Case study: Acorn project to capture and store up to one million tonnes of CO₂ by 2027

INEOS and Petroineos at Grangemouth join the Scottish cluster, partnering with the Acorn project to capture and store up to one million tonnes of CO₂ by 2027. It could be Scotland's first carbon capture and storage system, linking Scotland's industrial heartland to the Acorn CO₂ transport and storage system in Northeast Scotland.

Investment at the Grangemouth site will enable the capture and storage of approximately one million tonnes a year of CO₂ by 2027, with the scope to capture further significant volumes beyond this date.

INEOS and Petroineos own and operate one of Scotland's largest

manufacturing sites at Grangemouth. Since taking ownership of the facility in 2005, it has already reduced CO₂ emissions at the site by 37%. Once operational the proposed carbon capture and storage system will further increase emission reduction at the site to more than 60% compared with 2005. INEOS' businesses at

Grangemouth have put in place roadmaps to lead the transition to a net zero economy by no later than 2045, whilst remaining profitable, and staying ahead of evolving regulations and legislation.

[Read more...](#)

2.2.8 Reducing emissions through our supply chain

Through our cross-business procurement network, business directors and managers meet regularly. They share best practices including how to make the most of low-carbon logistics and launch initiatives to advance sustainability in our supply chain.

For many years now, all INEOS suppliers are required, through contractual arrangements, to be as efficient as possible in providing a service on our behalf. This mindset, together with efficient transport planning, helps us to maintain safety, drive costs down and improve carbon savings across our logistics.

Likewise, we often encourage customers to co-locate on the same

industrial site or at interconnected locations, thereby creating chemical clusters. Examples are those in port areas such as Antwerp (Belgium), Marseille (France), Rosignano (Italy), Rafnes (Norway), Grangemouth (UK) and Houston (US). Köln (Germany) is a clear example of a chemical network, the so-called Produktionsverbund. This approach means that we strive to close material and energy cycles, either through direct supply or by delivering product via pipeline.

Our next preference is to use a ship or barge, then rail and, finally, road. As part of ongoing work with our transport providers, INEOS also strongly advocates training for drivers on safe fuel-efficient driving.

The main elements of our supply chain are:



responsible
procurement of our
raw materials,



energy and resource
efficient production of
our products,



safe and reliable
transportation of
our products to our
customers.

“ We work with thousands of suppliers, and we expect that they already adhere to most of the rules in our supplier code of conduct. But what we hope to do is encourage them to also adhere to our safety standards and our expectations on protecting the environment. It is a way of also assuring all of our stakeholders that our suppliers are equally aligned with our own objectives.

DAVID THOMPSON

CEO, INEOS Trading and Shipping and
Procurement Director for INEOS Group





Supplier code of conduct and follow-up

In response to the challenge of supply chain CSR, resource efficiency and circularity, we have increased our focus on sustainable procurement. INEOS expects its supply chain to comply with applicable laws and adhere to internationally recognised ESG standards including those set out in our [Supplier Code of Conduct](#) (SCoC). The code defines and summarises what we expect of our suppliers, suppliers' subsidiaries and affiliates, their subcontractors or other business partners' contractors and agents, regardless of location or background.

The Group-wide SCoC is part INEOS' commitment to CSR; it can be found

on our website in 22 languages. Each of our businesses, covering all INEOS sites worldwide, is expected to present the code and an associated questionnaire, available in 11 different languages, to all suppliers in order to monitor their CSR and ESG performance. All replies are automatically updated into a central database.

Training materials are provided, sessions organised, monitoring systems established, example terms & conditions clauses and assessments shared.

At specific occasions INEOS performs supplier and contractor audits to monitor social and environmental performance and make sure that we are doing business with responsible companies.

The following list of KPIs has been created and validated by our central procurement team:

- Distribution of the SCoC,
- Inclusion of social and environmental clauses in standard terms of purchase and in term contracts,
- Supplier engagement: SCoC or equivalent signed by suppliers,
- Trained staff: buyers to attend sustainable procurement training or self-training programme,
- Supplier questionnaire: questionnaire response rate,
- Supplier assessment: suppliers with third party CSR accreditation.

INEOS is cutting its GHG footprint in a variety of ways:

Action	Status/Example
Development of clean hydrogen as fuel	INEOS is Europe's largest developer of electrolysis technology in its chemical business and has hydrogen storage infrastructure. With the new hydrogen business and over €3 billion investment in green hydrogen, INEOS will play an active role in commercialisation of hydrogen as fuel.
Increase of clean energy sources	INEOS signed two PPAs with 140 MW capacity in total and is exploring further to increase the share of clean energy in its energy footprint. Direct investment in renewable energy systems e.g. solar panels is also considered as part of the 2030 roadmaps. Hydrogen co-fuelling is already at pilot stage in Antwerp and will be a key element in 2030 roadmaps with the support of the hydrogen business.
Use of recycled and bio-based feedstocks instead of hydrocarbon feedstocks	INEOS is procuring bio-feedstock which is showcased with O&P Europe's bio-olefin production, INOVYN's bio-attributed polyvinyl chloride (PVC) called BIOVYN and Styrolution's bio-attributed styrene products called Styrolux and Styroflex ECO. INEOS Styrolution also produces Terluran ECO which uses up to 70% recycled acrylonitrile butadiene styrene (ABS) content from post-consumer waste.
Continuous optimisation of current operations	INEOS sites follow the continuous improvement principle of energy management systems such as ISO 50001, EMAS, ESOS and EBO. Our sites implement process optimisation through equipment upgrade, refurbishment and advanced process control.
Carbon capture and use or storage	INEOS already has carbon capture systems in place in Antwerp, Köln, Tavaux and Lavera. Although captured carbon is currently used in a variety of applications, the ultimate goal is to embed it in clean fuels. INEOS also partners in CCS projects in Antwerp, Grangemouth and Houston and is leading the Greensand CCS project in Denmark.
Investment in new assets to create a step change in emissions	A key example is INEOS investing €1.2 billion at Grangemouth in blue hydrogen coupled with carbon capture which will reduce the site emissions significantly.

2.3 CIRCULAR ECONOMY: MAXIMISING THE REUSE AND RECYCLING OF OUR PRODUCTS



Resource conservation and waste reduction are major concerns of society and regulators today. Pressure is being brought to bear on

industrial producers to reduce their material intakes and cut waste and pollution by moving to a more circular economy.

In a circular economy, products are designed to improve recyclability so they can be recovered and reused or recycled to the maximum extent possible, reducing landfill, incineration and the demand for fossil-based raw materials.

INEOS is committed to playing its part and achieving a more circular economy.

This saves resources, reduces greenhouse gas emissions and creates opportunities for our customers and our businesses. This is especially true in those businesses with products that reach the end-consumer, such as polyethylene (PE), polypropylene (PP), polystyrene (PS), ABS and PVC.

The move to a more circular economy will also maximise the valuable contribution that such plastics make to society whilst minimising their environmental impact.

Material topics covered:

- **Climate change**
- **Circular economy**
- **Waste management**

The INEOS pledge

...use on average

30% recycled content
in products

destined for polystyrene packaging in Europe

...incorporate at least

325 kt/a

of recycled material
into products

...ensure

100%

of polymer products
can be recycled

...we will offer a range of polyolefin (PE and PP) products
for packaging applications containing at least

50% of recycled material
and use

2.3 Circular economy: maximising the reuse and recycling of our products | continued

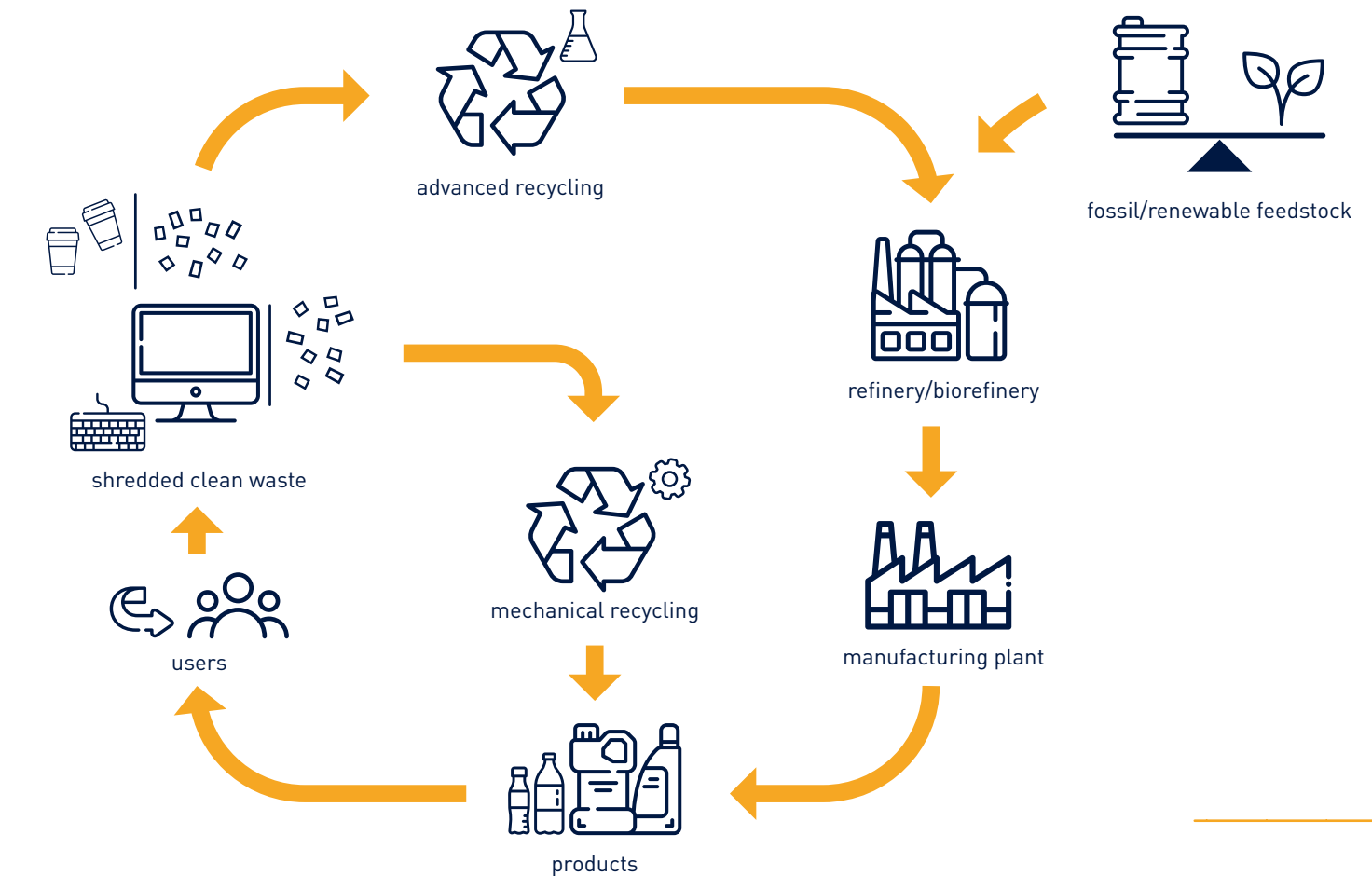
INEOS is also working with, and supporting, brand owners and industry partners to agree upon and set common industry targets for recyclability and recycling.

For example, instead of using fossil-based carbon to produce polyolefins and PVC, INEOS is using UPM BioVerno, a sustainable raw material from a renewable residue of wood pulp processing. The carbon footprint of these bio-attributable materials can be up to 90% lower than conventionally made products.

Our Styrolux ECO and Styroflex ECO resins are compliant products enabling the substitution of fossil source styrene with a certified bio-attributed styrene. Over their production lifecycle, our ECO resins provide GHG savings compared to a fossil fuel equivalent.

INEOS businesses are devoting considerable effort and resources to developing ways of recycling plastics post-consumer use. But we realise that no single recycling method is sufficient to meet INEOS' targets. We are developing several different technologies in parallel, each suited to a different fraction of the plastic waste which is collected.

These can be broadly grouped into two categories: mechanical recycling,

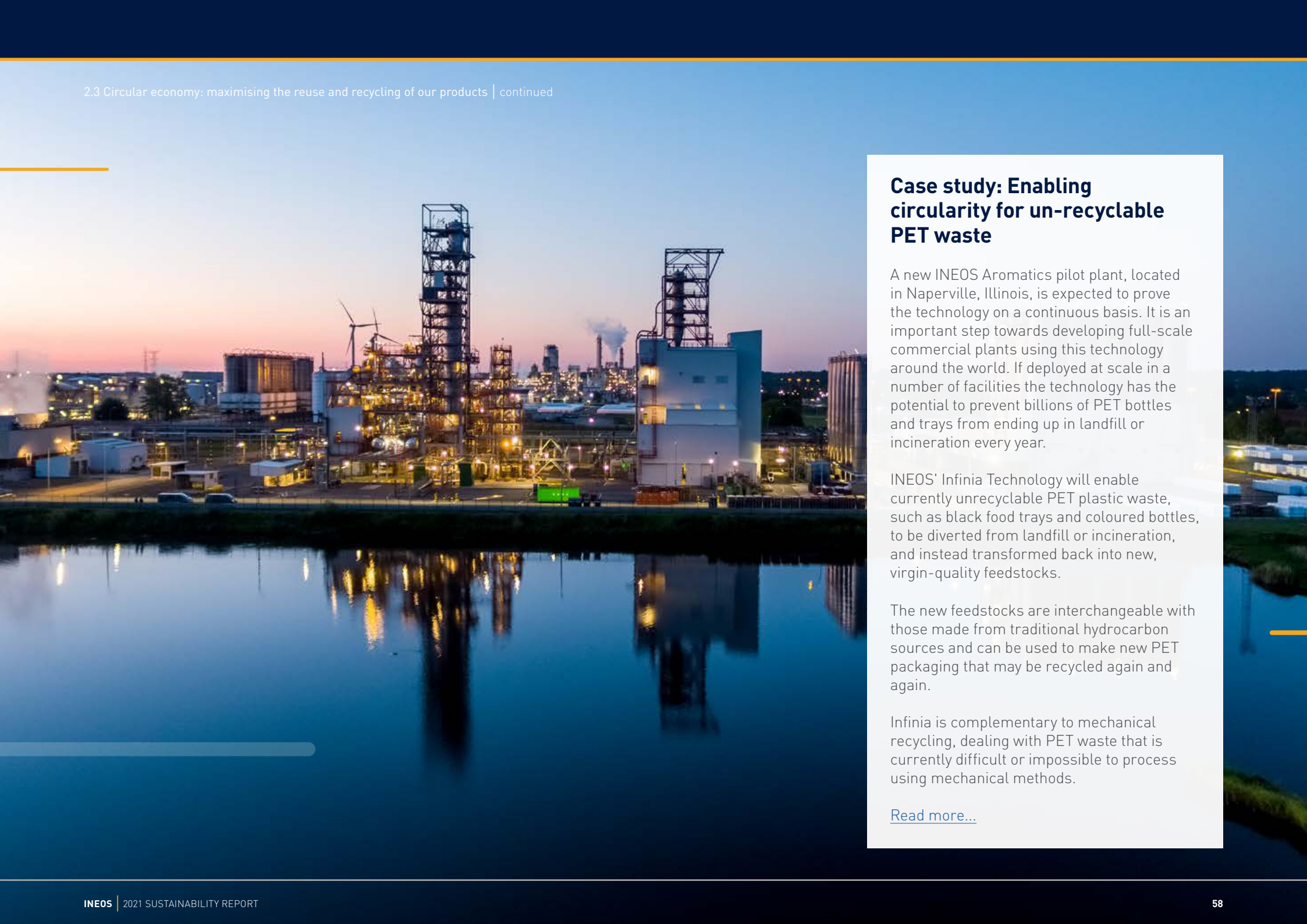


where the plastic waste recovered is physically processed into reusable form; and advanced recycling, in which the waste plastic is either broken down chemically into its constituent parts for repolymerisation into new polymer,

or recovered in pure form after dissolution in a solvent.

A major focus is to combine a high performance and lower carbon footprint with easier recyclability,

and high recycled content. For example, we have developed new grades of ABS containing recycled material that still fulfil the stringent specifications required to meet demanding applications.



Case study: Enabling circularity for un-recyclable PET waste

A new INEOS Aromatics pilot plant, located in Naperville, Illinois, is expected to prove the technology on a continuous basis. It is an important step towards developing full-scale commercial plants using this technology around the world. If deployed at scale in a number of facilities the technology has the potential to prevent billions of PET bottles and trays from ending up in landfill or incineration every year.

INEOS' Infinia Technology will enable currently unrecyclable PET plastic waste, such as black food trays and coloured bottles, to be diverted from landfill or incineration, and instead transformed back into new, virgin-quality feedstocks.

The new feedstocks are interchangeable with those made from traditional hydrocarbon sources and can be used to make new PET packaging that may be recycled again and again.

Infinia is complementary to mechanical recycling, dealing with PET waste that is currently difficult or impossible to process using mechanical methods.

[Read more...](#)

Our starting point for increasing recycle rates is safe and sustainable product design. We harness our skills in material science to design products that make recycling easier to do. Often this will involve designing products, and especially packaging, that consist of only one polymer but still have the performance of multi-component systems.

Product innovation is at the centre of our business. Our objective is to take concrete actions now to create the new products required to lead the transition to a circular economy and a carbon neutral future.

These products deliver improved resource and energy efficiency to our customers, and so reduce the overall environmental footprint of the product in use.

We understand that we have to develop the technologies needed to recycle each part of the plastic waste stream that can be collected. Some of the waste plastic is recovered as a relatively pure stream; in which case we can recycle it mechanically for reuse in a new application. However, much of it is contaminated with food or mixed together with other materials, and for these we need advanced recycling methods.

“ The need to develop a circular economy is well recognised and making headlines around the world. At the heart of this drive is the principle of conservation and efficient use of raw materials. This principle goes to the heart of all that we try to do in the business.

ROB INGRAM

CEO, INEOS Olefins & Polymers Europe

2.3.1 Mechanical recycling

In mechanical recycling, plastic waste is physically shredded and processed into smaller pieces without changing the basic structure of the material. This method is the quickest route to increasing recycling rates.

Across our businesses, we have already launched more than 25 new product grades that contain over 50% recycled content. Many of these contain newly developed high-performance grade products to boost properties to match the performance of virgin material.

We have, for instance, developed new Recycl-IN polyolefin products containing up to 70% recycled polymer for a range of applications. Our INOVYN business has fostered industry recycling initiatives which have enabled about 800,000 tonnes of PVC to be recycled each year.

One of the main bottlenecks in this approach is the economic collection and recovery of sufficient volumes of plastic waste of the right quality. To this end, INEOS is working with partners to help stimulate investment in recovery infrastructure in Europe.

2.3.2 Advanced recycling

Dissolution technology

Waste polymers can be purified by dissolving them in a solvent and reducing or eliminating additives, colours and impurities. The technology is still in the early stages of commercial development.

Depolymerisation

In depolymerisation, polymers are recovered and separated from consumer waste streams then unzipped back to the starting monomers from which they were made. These can then be purified and repolymerised to make high purity virgin resin.

In a world first, INEOS Styrolution has proven the concept for polystyrene. It has demonstrated full circularity

by depolymerising waste PS back to styrene, then repolymerising it to make products identical to new fossil carbon-based materials. We are now working with several partners to commercialise the process using state-of-the-art technologies.

Pyrolysis

Another approach is pyrolysis of mixed plastic waste, in which mixed plastic waste is converted to an oil via a thermal cracking process. The resulting oil is further purified and processed, then used as feedstock in steam crackers to produce the base molecules (ethylene, propylene, butadiene, benzene) for polymer production.

This recycling method is developing rapidly, and INEOS is at its forefront. The advantage is that it can process a wide range of post-consumer mixed

plastic waste that could not otherwise be recycled and would end up in landfill or be burnt.

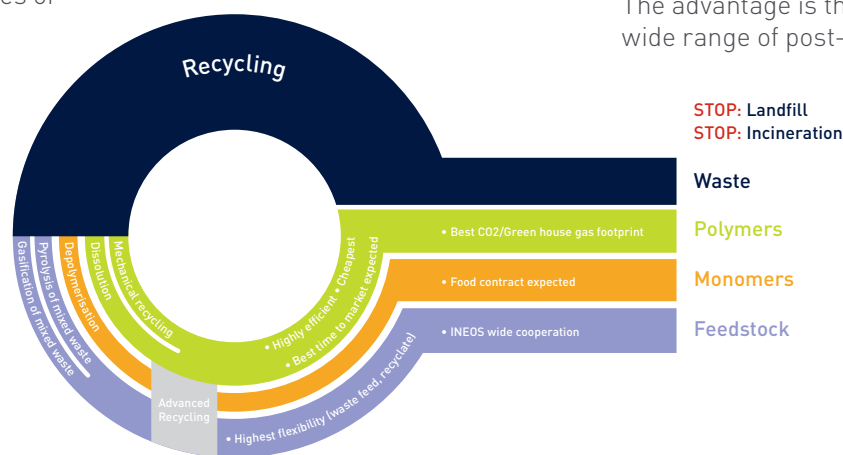
We have recently demonstrated the technology at commercial scale by feeding oils derived from mixed plastic waste to our large olefins unit in Köln, Germany. The process and resulting products have been certified by an independent accreditation body.

Gasification

Mixed plastic wastes can also be converted by gasification to a synthesis gas which can then be further converted into polymers and other products. We are exploring this approach with academic and industry partners because it may provide a large scale, flexible, cost-effective way of reusing difficult-to-recycle mixed waste streams.

Gasification offers the highest flexibility and scalability in terms of waste, feed and recycle. However, as all advanced recycling techniques it is highly energy intensive and requires significant investment and development, for which joint industry collaboration will be needed.

These advances have been made by our multidisciplinary research teams, formed to bring material science, product design, applications and process knowledge together for a common purpose.



Case study: INEOS O&P US receives ISCC certification in advanced plastic recycling

Successful commercial scale trials of advanced recycling production have been completed at INEOS O&P US in Texas and California. O&P US has been accredited ISCC (International Sustainability & Carbon Certification) PLUS, a global sustainability standard for

transparency and compliance. ISCC holds objectives regarding the implementation of environmentally, socially and economically sustainable production.

Advanced Recycling converts waste plastic back into a liquid raw material

for use in next generation plastic production. Also known as chemical recycling, this technology can be used for many types of plastic including mixed plastic waste streams that are normally difficult or impossible to process with traditional recycling.

Advanced Recycling creates a closed-loop system for plastics management, helps reduce landfill, prevents plastic from ending up in the environment and reduces the use of fossil-fuel based raw materials.

[Read more...](#)

“Plastic waste is an important problem that INEOS is committed to addressing. Using difficult-to-recycle waste streams as a new raw material is a step-change. This investment is beneficial to INEOS and our customers but also for the overall global issue of plastic waste and the management of essential plastic products.”

MIKE NAGLE

CEO, INEOS Olefins & Polymers USA



2.4 VALUING OUR PEOPLE



In every country that we operate, we abide by local, regional, and national laws regarding human rights. At INEOS, all our employees have the right to join labour unions, works councils, collective bargaining, or equivalent initiatives. On average, ca. 55% of all INEOS employees worldwide are covered by a formal collective labour or bargaining agreement.

In our European businesses, we are part of the European Works Council (EWC) meetings and, annually prepare our report for the EWC. Committees and agreements are in place on employee and contractor health and safety, working conditions, recruitment, training and development, diversity and equality, etc.

Next to works councils, some sites use union delegations, team meetings and/or safety committees as a means to communicate with our workforce.

Measures to promote work and life balance within INEOS, depending on the business and site, include

employee surveys and annual reviews. All employees also have access to the INEOS Energy Station.

At INEOS, each employee is covered by a bonus scheme, which is related to the performance of the Group as well as each business.

Material topics covered:

- **Training & career management**
- **Diversity & equality**
- **Working conditions**
- **Labour unions**

“ There’s a dynamism around INEOS – a willingness, desire and ability to get things done. There is a restlessness that you see in the people; they want to strive and do the next thing, find the next idea and get better. The sense of adaptability and agility is quite extraordinary. We are one of the industry’s most entrepreneurial organisations, where everybody really cares about the tangible things we’ve done rather than only our aspirational goals.

BRIAN GILVARY

Executive Chairman, INEOS Energy



2.4 Valuing our people | continued

2.4.1 Recruitment, development and remuneration

We rely on the creativity, diversity, knowledge, passion, and expertise of our people to drive sustainable business success and achieve a competitive advantage. We want fresh thinking and new ways of doing things.

Our core guiding principle is to 'value and respect'. INEOS encourages an entrepreneurial culture where talent can quickly rise to the top and where people are rewarded for taking the initiative, as well as for their performance. We also place a large emphasis on 'healthy body, healthy mind'. Our aim is to provide an environment where everyone can develop to their full potential. INEOS is well known for its entrepreneurial spirit, and we encourage an adaptable, agile and forward-looking approach to the way we do business. We want to develop that innate willingness to learn and push towards increasingly ambitious goals.

That means attracting a diverse range of the highest quality candidates for each available position, recruiting based on merit following the principles of equal opportunity.

In each of our locations, we directly recruit local talent into our operations and business. These local

opportunities are supplemented by group-wide initiatives such as our core Graduate Engineering programme and European Commercial Programme.

The latter is designed to attract high quality candidates who wish to pursue a commercial rather than technical career.

Graduates are assigned a senior manager as a mentor and attend corporate events in the first and third years of the programme. These provide valuable networking opportunities and allow them to meet senior leaders from across INEOS. Candidates participate in interactive sessions and hands-on learning to further develop their understanding of financial management, leadership and business strategy.



“ We work hard to ensure that INEOS is a rewarding place for our staff to work because we know that a highly skilled workforce is vital for the long-term sustainability of our company.

JILL DOLAN
HR Director, INEOS Group

In year four, they can test their mental and physical boundaries by taking part in our IN-NAM Challenge, a seven-day adventure in the Namibian desert.

Training and development are continuous processes. From the first day of introduction, safety and job-related training is paramount throughout a career at INEOS. We are focused on enhancing professional and technical knowledge, as well as the development of their management and executive skills. Where appropriate, we also support working towards externally recognised qualifications.

Mentoring and support is a key part of career progression, and our employees participate in annual appraisals with their line managers to review performance, agree targets for the year ahead and discuss their individual training and development needs.

In-house training programmes include modern apprenticeship schemes, our PhD strategy, and ongoing training for technicians, executives

and leadership teams. These range from enhancing SHE skills and environmental protection training to creating awareness about business ethics issues in the form of acceptable conduct and soft skills.

INEOS operates as a federation rather than a corporation, adopting a decentralised structure and approach where each individual business is primarily responsible for developing and training employees. All sites operate an annual performance appraisal system and training/development process that help to identify requirements and then delivers these for each employee. Best practices are shared across the group and experiences and achievements compared and built upon.

Everyone has access to an online health and fitness hub, the INEOS Energy Station, which offers in-house

“ At INEOS, there’s none of that ‘big company approach’ – everyone is judged on how they do the job. People get rewarded if they perform well and everybody knows that from the start.

TOM CROTTY
INEOS
Director of Corporate Affairs

gym facilities and fitness classes, individual and team-based activities and challenges, as well as training and nutrition advice. This allows people to easily meet across the businesses and encourages team bonding.

INEOS employees benefit from crucial infrastructure and support for their continued wellbeing, ranging from mentoring to mental health care. There is a genuine push to look after

our people and support them. The way we operate and do things is quite unique – and that is what helps to find the best talent. All this attracts people who want to come in and contribute to moving INEOS forward.

We understand we have a duty to ensure that our decisions regarding recruitment, selection, development, and advancement of employees are based on merit, qualifications, demonstrated skills and achievements. Our remuneration strategy is to pay above market rates and to reward productivity and progress. All employees are expected to follow our code of conduct, act responsibly and not compromise our environmental, health or safety standards for any reason.

Building the best workforce

Universities

An ever growing number of projects in collaboration with universities involving PhD students



Grad scheme

A 5-year duration graduate programme available in 4 countries

People

26,000
employees



TuWaS!

13 years of inspiring school pupils aged 6 to 12 in Germany with TuWaS!

Apprenticeships

Our Köln apprenticeship programme attracts 3,000 applications for 60 places



Case study: Energising employees with the INEOS Energy Station

At INEOS, we help our employees to push their own boundaries and achieve their sport and health goals – we place great emphasis on a healthy mind in a healthy body.

Our dedicated sports and health platform, built by former Olympic athlete John Mayock who works at INEOS, is just one of the many initiatives that helps our employees to feel energised both mentally and physically. We provide the following information on the Energy Station platform:

- Fitness and yoga classes,
- Personalised training programmes,
- Sport events,
- Corporate health programme,
- Nutritional advice & programmes,
- Stress handling and mental health tips.

Within INEOS, safety, health and environment are our highest priorities. So, promoting an active and healthy lifestyle towards all our employees makes sense. The INEOS Energy Station brings together existing initiatives from across the company that we hope will inspire the growth of new ones.

[Read more...](#)



“ Being fit to work isn’t simply about being safe. It’s about being healthy, energetic, being our best, and being sharper during our working time. We’re on a mission to help our employees improve their health and wellbeing, whatever their role, goals, or fitness levels.

JOHN MAYOCK

Director of Charity and Fitness, INEOS Group

2.4.2 Diversity, inclusion and equality

All our employees, wherever they are in the world, know that they must hold themselves up to the highest standards of ethics, integrity, openness, and accountability in the way they go about their daily business.

INEOS is a global company that values the diversity of our people. We respect the rights, values and dignity of all employees, customers, contractors, vendors, and other stakeholders.

We also facilitate reporting any concerns or grievances. Our INEOS Speak Up! policy allows employees to share any concerns anonymously, if they believe anyone acting on INEOS' behalf is behaving unethically or improperly. They can do this through our dedicated Speak Up! service, which is accessible via an independent third party online or through a 24/7 toll-free phone number.

We value the diversity of our people and each of our employees is recognised as an important member of our team.

All employees understand that they have a duty to ensure that our decisions regarding recruitment, selection, development and advancement of employees are based

on merit, qualifications, demonstrated skills and achievements. We practice the principle of equal opportunity without regard to race, colour, religion, gender, age, national origin, sexual orientation, gender identity, marital status, disability or political affiliation, and do not allow these considerations to influence our judgment or treatment of others.

This approach to diversity and inclusion forms part of the INEOS code of conduct which describes in detail the behaviours we expect of all employees and is available to everyone.

To monitor the evolution of our workforce, we track employee demographics and review these annually across the INEOS Group.

These are used to review manpower planning requirements, and to ensure that succession planning and recruitment and development are meeting business objectives based on merit. We collect data on age and gender, but do not universally track demographic data based on ethnicity, as definitions of racial and ethnic groups differ from country to country and collecting such data in some countries is a violation of privacy laws.



2.5

GOVERNANCE: SUSTAINING THE HIGHEST STANDARDS OF ETHICS AND COMPLIANCE



INEOS is committed to applying and maintaining high standards and operating responsibly in accordance with

legal obligations and our own code of conduct. Our requirements and behavioural expectations for employees and businesses are outlined in our code which is regularly updated and communicated to all employees and external stakeholders.

Material topics covered:

- **Diversity & equality**
- **Ethics**
- **IT security**

The code comprises the following sections:

- Health, safety, security and the environment,
- Competition and sanctions,
- Governance,
- Government and communities,
- Financial integrity and company assets,
- Human resources,
- Digital system use and security,
- Violations of the code.

Compliance and transparency are essential to the safe and sustainable operation of our business, and we routinely conduct audits and provide training to ensure employees are up to date with the latest requirements and procedures.

“All of our employees, wherever they are in the world know that they must hold themselves up to the highest standards of ethics, integrity, openness and accountability in the way they go about their daily business. We work hard to continuously improve our performance, but in doing so we will not compromise our environmental, health or safety standards for any reason, including profit, commercial or production reasons.

ANDY CURRIE
INEOS Capital

Each business has dedicated compliance and legal managers responsible for ensuring group policies are followed across all operations. These include competition/ anti-trust

law, anti-bribery and corruption (ABC), sanctions and modern slavery. All staff who could potentially be exposed to any risk also completes mandatory competition and sanctions training.

Case study: Advanced CSR and ESG performance endorsed by EcoVadis and Sustainalytics

INEOS' continued focus on improving our sustainability performance and corporate responsibility across the group has been recognised with a platinum rating for INEOS Styrolution, and gold ratings for INOVYN and INEOS Europe AG, by EcoVadis in 2020. In addition, we have received a strong ESG appraisal of INEOS Group by Sustainalytics in 2021.

EcoVadis, providing CSR ratings for our value chain, has placed INEOS Europe AG in the top 4% of its industry, and Sustainalytics, providing ESG

ratings for investors, has put INEOS Group Holding in the top 5%.

The ratings indicate that INEOS' engagement is at an advanced level, meaning that we have a structured and proactive CSR and ESG involvement with tangible actions on sustainable business and with a dedicated reporting on CSR and ESG policies, actions, indicators and targets.

EcoVadis is a global provider of business sustainability ratings, intelligence, and performance

improvement tools for global supply chains. It provides assessments based on detailed sustainability scorecards, which consider environmental, social, and ethical risks across 75,000+ companies across 160+ countries and 200+ industries.

Sustainalytics is a global ESG risk ratings company, providing assessments on companies' ability to mitigate risks and capitalise on opportunities.

[Read more...](#)

“Constantly improving the sustainability of our operations drives innovation across all INEOS businesses and sites. It is central to how the company operates and critically important to its employees, customers and communities as well as shareholders and investors.

GREET VAN EETVELDE

Head of Energy and Innovation, INEOS Group



2.5.1 Anti-bribery & corruption, and anti-competitive practices

INEOS constantly monitors and evaluates changes to laws, regulations and sanctions and adjusts its procedures accordingly. Supplementary training and updated modules help to ensure compliance.

We provide training on anti-bribery and corruption and anti-competitive practices in addition to anti-money laundering and prevention of terrorist funding, to all relevant employees.

Our commercial contracts include provisions expressly prohibiting any illegal activity. INEOS encourages staff to report any instances of suspected malpractice to their senior manager in the first instance and offers an independent 'Speak up!' service where they can anonymously report any concerns about unethical or unlawful behaviour. No legal action was taken by employees during 2020 with regard to anti-corruption and bribery, anticompetitive or anti-trust practices.

Day-to-day management of compliance is delegated to each business executive team, but overall governance and assurance to our owners is provided by INEOS' Group Treasury and Group Legal Compliance teams. Their remit includes:

- circulating guidance notes and regular compliance updates to the compliance managers across the businesses,
- providing free competition and commercial law helplines with external international law firms,
- maintaining a legal compliance database that contains articles, checklists, process, procedure and guidance documents and links to external resources,
- conducting compliance audits for all businesses and any new acquisitions,
- providing new employees with compliance training as part of their induction,
- hosting legal and compliance conferences to review progress, discuss current issues and promote development,
- operating a compliance network for compliance managers to share best practice.

Part of our responsibility is to ensure that we maintain a robust policy on anti-bribery and corruption, and do not engage in any unethical practices and investigate any reports of suspected violations.

2.5.2 Anti-slavery & forced labour

Similarly, INEOS has a zero-tolerance approach towards modern slavery and is committed to ensuring transparency tackling this in our businesses and our supply chains.

Most of INEOS' activities are carried out in the EU and US and can be considered at lower risk of modern slavery. However, we recognise our responsibility to engage with staff and alert them to the risks of slavery, however small, across in their businesses and supply chain and to act upon them. Further information on INEOS' policy on modern slavery can be found in our [Modern Slavery Transparency Statement](#).

Our approach includes regular checks and due diligence for onboarding new suppliers; monitoring potential

risks in supply chains; carrying out selective supplier audits; including due diligence regarding slavery in mergers and acquisition activity; and protecting whistle-blowers. We also provide relevant training and make our anti-slavery policy available to all employees.

We are committed to ensuring that there is no modern slavery or human trafficking in our supply chains or in any part of our business. Our anti-slavery policy reflects our commitment to acting ethically and with integrity in all our business relationships. It also leads to implementing and enforcing effective systems and controls to ensure slavery and human trafficking is not taking place anywhere in our supply chains.





2.6 IN OUR COMMUNITIES



Being a good neighbour underpins our licence to operate. We are committed to the long-term sustainability of our business and to

support the communities living and working close to our sites.

We aim to help inspire the next generation of scientists and engineers, support our neighbourhoods and engage with local communities by working closely with school children and local governments.

Through our staff volunteering to support charities, the sponsorship of local sports teams, or work with schools, colleges and universities to promote science, technology, engineering and mathematics (STEM), INEOS is always looking for ways to

collaborate and contribute to a better society.

That means sharing our resources and capabilities, and ensuring we have regular and open discussions about the work we do and the products we make.

INEOS fosters collaboration with companies based around our sites,

bringing together local businesses to share resources, infrastructure and utilities, as well as offering our support at community events. This is demonstrated through our development of strong industrial clusters at our locations in Antwerp in Belgium, Köln in Germany, Lavéra in France, Grangemouth and Hull in the UK, Houston in the US and in Rafnes in Norway.

Material topics covered:

- **Community engagement**

We also hope to inspire the next generation of scientists and engineers by welcoming children on visits to our sites and through our employees visiting classrooms.

“ Often a small donation can make a huge difference to these organisations, which are doing vital work in our communities. So, we decided to create a £1million charitable support fund, administered through several targeted grants of up to £10,000, to organisations where this would allow.

URSULA HEATH
Communications Manager, INEOS Group

Case study: The INEOS Oxford Institute

The INEOS Oxford Institute has been funded by INEOS to enable urgent cutting-edge research into antimicrobial resistance (AMR), one of the greatest international health threats of our time. In January, INEOS announced a £100m donation to the University of Oxford to establish the INEOS Oxford Institute for Antimicrobial Research.

The issue of AMR is already one of the greatest global health challenges today- causing an estimated 1.5m excess deaths per year, which is set to rise to 10m excess annually

by 2050. The economic impact of growing antimicrobial resistance is predicted to cause some \$100tn USD in lost economic output by 2050, disproportionately affecting low and middle income countries.

The alarming and escalating development of bacterial resistance to antibiotics will be the primary focus of the Institute. Without effective antibiotics, the world will no longer be able to fight many common bacterial infections, making taken-for-granted procedures like caesareans, organ transplants, joint replacements and

many cancer treatments unviable. In a post-antibiotic world, even a simple cut may have dire consequences.

The new INEOS Oxford Institute will provide the funding and impetus to conduct cutting edge research into understanding and addressing the global scale of the antibiotic resistance problem.

Why INEOS?

INEOS believes that it is important for the company to 'put back' into society- and to do so in a meaningful way, where it can add more value than

simply funding. INEOS will lend its management expertise to the Institute while safeguarding the total academic freedom of its research scientists. There is only limited research being pursued in this field worldwide, but as we have seen very clearly with the COVID-19 pandemic, we cannot take our medical health for granted. Bacteria are the oldest living organism on earth and have already decimated our antibiotic armoury - the time to act against resistance is now.

[Read more...](#)



“ When you wrap a top-quality business around the fishing experience, the wild Atlantic salmon becomes a high-value asset. Conserving it is therefore vital, and Strengur Angling Club is at the forefront of this conservation work.

JIM RATCLIFFE
INEOS Chairman

Case study: Six Rivers Project to save the salmon

A passionate fly fisherman, INEOS Chairman Sir Jim Ratcliffe became aware of the dire challenges facing wild Atlantic salmon, whose population has collapsed over recent years. While responsible sport fishing requires all caught fish to be released carefully back to the river and river populations to be carefully monitored, excessive salmon fishing is one factor

compromising the survival of the species.

Wild salmon go through an incredible journey to survive and reproduce—the scale of its journey across the Atlantic and up some of the world’s most intimidating rivers is scarcely believable. They evade all manner of hungry predators at sea from seals

and dolphins to sharks, only to arrive in the rivers to be confronted by rapids, waterfalls and rocks, but they still manage to make their way upstream to breed.

Iceland remains a rare haven for wild Atlantic salmon populations and is home to some of the best fly fishing in the world. And while little beyond

lobbying international authorities can be done to prevent overfishing, there is promising scope for protecting its most valuable habitats and nurturing population growth. If we work closely with farmers and local communities, we can build something sustainable and environmentally sound

[Read more...](#)



3.0 GRI INDEX

General disclosures

The organisation and its reporting practices

GRI #	Disclosure	Chapter	Page	Comments
2-1	The organisation and its reporting practices	Front cover 1.4 INEOS at a glance 1.5 Our structure	<u>1</u> <u>7</u> <u>8</u>	INEOS is a privately-owned company.
2-2	Entities included in the organisation's sustainability reporting	About this report 1.5 Our structure	<u>2</u> <u>8</u>	All audited financial statements can be found on our website: Investors INEOS Group
2-3	Reporting period, frequency and contact point	About this report	<u>2</u>	
2-4	Restatements of information	—		All restatements of information mean that the information still holds true for 2020.
2-5	External assurance	—		Information unavailable: this report is not yet externally verified

Activities and workers

GRI #	Disclosure	Chapter	Page	Comments
2-6	Activities, value chain and other business relationships	1.4 INEOS at a glance 1.6 Significant changes to the organisation 1.8 Our products and markets 2.0 Improving the sustainability of our business and operations 2.2.8 Reducing emissions through our supply chain	<u>7</u> <u>10</u> <u>12</u> <u>20</u> <u>53</u>	All our brands per business can be found on our website: Our Businesses INEOS Group
2-7	Employees	1.4 INEOS at a glance	<u>7</u>	INEOS consists of 26,000 employees, all of whom are categorised as permanent employees. Circa 80% of our employees are male, and 20% female. Our employees are divided over the following regions: - Europe: 70% - Americas: 22% - Asia: 8% - ROW: <1%

Activities and workers | continued

GRI #	Disclosure	Chapter	Page	Comments
2-8	Workers who are not employees	—		<p>We employ relatively few contractors compared to the total number of our employees.</p> <p>We identify the following types of contractors:</p> <p>Service contractors who visit INEOS sites to provide some type of non-maintenance service such as on-site transport, inspection or testing.</p> <p>Maintenance contractors who typically provide skilled trades to maintain, modify, install or fix equipment.</p> <p>Project contractors who are employed to construct specific projects of any nature, e.g. buildings, manufacturing facilities or process plant.</p> <p>Contract staff who are individuals hired from a contractor or agency to provide a design, production, and maintenance, clerical or other service for INEOS.</p> <p>Management contractors who manage any of the above categories of works contractors or INEOS employees on behalf of INEOS.</p> <p>Distribution contractors who transport INEOS products.</p>

Governance

GRI #	Disclosure	Chapter	Page	Comments
2-9	Governance structure and composition	1.5 Our structure	8	More information on our highest governance body can be found on our website: Our Leadership INEOS Group
2-10	Nomination and selection of the highest governance body	1.5 Our structure	8	
2-11	Chair of highest governance body	1.5 Our structure	8	
2-12	Role of highest governance body in overseeing the management of impacts	1.5 Our structure	8	
2-13	Delegation of responsibility for managing impacts	1.5 Our structure Sustainability governance	8	<p>Each member of the boards has several roles that report to them:</p> <p>CFO: global and regional financial controllers, etc.</p> <p>Business director: regional business and/or sales managers, product managers etc.</p> <p>Operations director: site managers, business SHE managers, site SHE managers etc.</p> <p>Procurement director: (regional) procurement and/or feedstock managers etc.</p> <p>HR director: business and site HR managers etc.</p>
2-14	Role of highest governance body in sustainability reporting	1.5 Our structure	8	By default, all public information and statements made on behalf of INEOS must first be approved by INEOS Capital, INEOS' highest governance body. This includes our sustainability reporting.

Governance | continued

GRI #	Disclosure	Chapter	Page	Comments
2-15	Conflicts of interest	1.5 Our structure 2.5 Governance: Sustaining the highest standards of ethics and compliance	8 67	Our policy on conflicts of interest is outlined in our code of conduct , which is read and approved by INEOS' highest governance body. Any code of conduct breaches, including conflicts of interest, are tracked via our INEOS Speak Up! service . Any INEOS stakeholder can view our memberships, partnerships, pledges and more in this report on page 24.
2-16	Communication of critical concern	1.5 Our structure 2.1 Excellence in safety, health and the environment	8 25	All topics of critical concern are discussed in monthly Exco meetings; each INEOS business' SHE performance receives special attention. Any employee who wishes to report a concern anonymously, can do so via the INEOS Speak Up! service .
2-17	Collective knowledge of the highest governance body	1.5 Our structure	8	More information on our highest governance body can be found on our website: Our Leadership INEOS Group
2-18	Evaluation of the performance of the highest governance body	—		As a privately owned company, our highest governance body is our shareholders, the owners of the company. Decision making is taken directly at a shareholder level.
2-19	Remuneration policies	2.4.1 Recruitment, development and remuneration	63	More information on our remuneration strategy can be found on our website: Recruitment, Development & Remuneration INEOS Group and Code of Conduct INEOS Group
2-20	Process to determine remuneration	—		Confidentiality constraint: INEOS considers this information confidential and hence will not publicly report on this topic.
2-21	Annual total compensation ratio	—		Confidentiality constraint: INEOS considers this information confidential and hence will not publicly report on this topic.

Strategy, policies and practices

GRI #	Disclosure	Chapter	Page	Comments
2-22	Statement on sustainable development strategy	1.1 Tackling global challenges	4	
2-23	Policy commitments	1.10 contributing to the UNSDGs 2.5 Governance: Sustaining the highest standards of ethics and compliance	15 67	More information on how we ensure responsible business conduct can be found on our website: Governance INEOS Group and Code of Conduct INEOS Group
2-24	Embedding policy commitments	1.5 Our structure 2.5 Governance: Sustaining the highest standards of ethics and compliance 2.5.1 Anti-bribery & corruption, anti-competitive practices 2.5.2 Anti-slavery & forced labour	15 67 69 70	More information on how we ensure responsible business conduct can be found on our website: Governance INEOS Group , Compliance INEOS Group , Delegation & Controls INEOS Group and Code of Conduct INEOS Group .
2-25	Processes to remediate negative impacts	—		<p>As outlined in our IGGNs, INEOS monitors complaints both from members of the public (including employees from other companies sharing the same site) and from official and regulatory authorities (including any prosecutions or citations). Since this includes a wide variation in the significance attached to each complaint, categorisation is necessary:</p> <p>Category I: Complaints from members of the public not considered to be justified against INEOS after appropriate investigation has been carried out.</p> <p>Category IIa: Justified complaints from members of the public where 3 or fewer persons complained about the same event.</p> <p>Category IIb: Justified complaints from members of the public where more than 3 persons complained about the same event.</p> <p>Category III: Formal written complaints from Regulatory Authorities includes legally enforceable instruments requiring specific improvement</p> <p>In line with the principles of Responsible Care® we commit to safely conducting our business in an ethical and environmentally responsible manner. Issues that arise are investigated and addressed on a continuous basis. Further, when our sites identify complaints, they are sent to their respective board of directors via the annual letter of assurance. The latter then reviews and summarises the major complaints to be sent to INEOS Capital, our highest governing body, for review and further action-taking when required</p>

Strategy, policies and practices | continued

GRI #	Disclosure	Chapter	Page	Comments
2-26	Mechanisms for seeking advice and raising concerns	2.4 Valuing our people 2.5 Governance: Sustaining the highest standards of ethics and compliance	62 67	More information can be found in our Code of conduct , Supplier Code of Conduct and the INEOS Speak Up! service .
2-27	Compliance with laws and regulations	—		Confidentiality constraint: INEOS considers this information confidential and hence will not publicly report on this topic.
2-28	Membership associations	2.0 Improving the sustainability of our business and operations 2.1.2 Responsible care and product stewardship 2.1.3 Compliance with REACH 2.1.4 Water management and use 2.2.5 Use of recycled and bio-based feedstocks instead of fossil-based feedstocks	20 30 30 32 47	More info on our charities and foundations can be found on our website: Charities and Foundations INEOS

Stakeholder engagement

GRI #	Disclosure	Chapter	Page	Comments
2-29	Approach to stakeholder engagement	1.9 Determining what is material 1.10 Contributing to the UN SDGs	14 15	<p>Customers: Methods: Direct engagement, sustainability handbook, website, customer events Topics: Strategy, performance, development, targets</p> <p>Suppliers Methods: Direct engagement, supplier assessments, surveys, direct audits calls & emails Topics: product quality & development, SCoC, targets</p> <p>Employees: Methods: Works councils, town halls, team meetings, training modules, performance management, intranet, newsletters, 24/7 hotline, sustainability handbook, Code of Conduct Topics: CSR, performance, working conditions, labour practices, employee health & safety, targets</p> <p>Industry associations Methods: Memberships, meetings, conferences, workshops Topics: Sustainable partnerships, industry-wide non-commercial issues, legislation, CSR, ESG, SHE, best practices</p> <p>Universities, scientific institutions & technology partners Methods: Presentations, conferences, workshops, partnerships, press releases Topics: CSR, SHE</p> <p>Shareholders & investors Methods: Quarterly investor meetings disclosures, weekly written updates, annual investor days Topics: strategy, economic performance, development, ESG, CSR, targets</p> <p>Communities Methods: Website, sustainability reports, press releases Topics: Sponsorships, funds,</p> <p>Regulators Methods: direct engagement, meetings, audits Topics: circular economy, CSR, SHE, investments, legislation, partnerships, targets, chemical industry input</p> <p>NGOs Methods: Direct engagement, partnerships, press releases Topics: CSR, SHE, targets</p>
2-30	Collective bargaining agreements	2.4 Valuing our people	62	

Management approach

GRI #	Disclosure	Chapter	Page	Comments
3-1	Process to determine material topics	1.9 Determining what is material Described in each chapter of the report	14 All	
3-2	List of material topics	1.9 Determining what is material Described in each chapter of the report	14 All	
3-3	Management of material topics	1.9 Determining what is material Described in each chapter of the report	14 All	<p>For each material topic, the following information is explained throughout the report:</p> <ul style="list-style-type: none"> • any INEOS Capital approved policies and commitments • any qualitative and/or quantitative targets, including the ones on our website: Performance INEOS Sustainability • any actions taken to achieve these targets which includes the tracking of action effectiveness • any engagements, partnerships, memberships or equivalent to achieve these targets <p>The following targets and/or data is monitored for each one of our material topics:</p> <ul style="list-style-type: none"> • climate change: our net zero pledge • circular economy: the INEOS pledge • SHE&REACH: our SHE performance & LOC10 data • GHG emissions management: emissions data • energy management: energy and clean energy data • waste management: waste data • water management: water data • ethics: INEOS Speak Up! data (anti-bribery and corruption, anti-competitive practices and more)

Economics

Anti-corruption – INEOS' key material topic: ethics

GRI #	Disclosure	Chapter	Page	Comments
205-1	Operations assessed for risks related to corruption	2.5 Governance: sustaining the highest standards of ethics and compliance	67	More information can be found in our Code of Conduct INEOS Group and Legal (ineos.com) website.
205-2	Communication and training about anti-corruption policies and procedures	2.5 Governance: sustaining the highest standards of ethics and compliance	67	More information can be found in our Code of Conduct INEOS Group and Legal (ineos.com) website. Each employee and/or contractor is responsible for knowing and following the laws that apply to where they work. The code establishes principles for business conduct applicable throughout INEOS, regardless of location.
205-3	Confirmed incidents of corruption and actions taken	—		INEOS Speak Up reports for 2020 were 23 in total out of 26,000 employees. 20 of the cases have been approved and closed already; 3 are assigned and still in progress. 1 of the incidents was related to bribery and corruption. All incidents are reviewed, investigated, and resolved by the respective INEOS business boards in Excos.

Anti-competitive behaviour – INEOS' key material topic: ethics

GRI #	Disclosure	Chapter	Page	Comments
206-1	Legal actions for anti-competitive behaviour, anti-trust and monopoly practices	2.5 Governance: sustaining the highest standards of ethics and compliance	67	

Environment

Energy – INEOS' key material topics: energy management, climate change

GRI #	Disclosure	Chapter	Page	Comments
302-1	Energy consumption within the organisation	2.2.3 Energy sources to run our operations Clean energy sources	39	
302-3	Energy intensity	2.2.3 Energy sources to run our operations Clean energy sources	39	
302-4	Reduction of energy consumption	2.2.3 Energy sources to run our operations Clean energy sources	39	

Water – INEOS' key material topics: water management, climate change, circular economy

GRI #	Disclosure	Chapter	Page	Comments
303-1	Interactions with water as a shared resource	2.1.4 Water management and use	32	
303-2	Management of water discharge-related impacts	2.1.4 Water management and use	32	
303-3	Water withdrawal	2.1.4 Water management and use	32	
303-4	Water discharge	2.1.4 Water management and use	32	
303-5	Water consumption	2.1.4 Water management and use	32	

Emissions – INEOS' key material topics: GHG emissions management, climate change

GRI #	Disclosure	Chapter	Page	Comments
305-1	Direct (S1) GHG emissions	2.2.1 GHG emissions Science-based method for emissions accounting	37	
305-2	Indirect (S2) GHG emissions	2.2.1 GHG emissions Science-based method for emissions accounting	37	
305-4	GHG emissions intensity	2.2.1 GHG emissions Science-based method for emissions accounting	37	
305-5	Nitrogen oxides (NOx), sulphur oxides (SOx), and other significant air emissions	2.2.1 GHG emissions Science-based method for emissions accounting	37	
305-7	Nitrogen oxides (NOx), sulphur oxides (SOx), and other significant air emissions	—		All emission categories can be found on our website: Performance INEOS Sustainability

Waste – INEOS' key material topics: waste management, climate change, circular economy

GRI #	Disclosure	Chapter	Page	Comments
306-1	Waste generation and significant waste-related impacts	2.1.5 Management of waste	34	
306-2	Management of significant waste-related impacts	2.1.5 Management of waste	34	
306-3	Waste generated	2.1.5 Management of waste	34	
306-4	Waste diverted from disposal	2.1.5 Management of waste	34	
306-5	Waste directed to disposal	2.1.5 Management of waste	34	

Society

Occupational health and safety – INEOS' key material topic: SHE & REACH

GRI #	Disclosure	Chapter	Page	Comments
403-1	Occupational health and safety management system	2.1 Excellence in safety, health and the environment	25	More information is available on our website: Safety, Health & Environment INEOS Group . Our health and safety management system and policies cover anyone arriving on INEOS' premises, whether employee, contractor, service provider or visitor.
403-2	Hazard identification, risk assessment, and incident investigation	2.1 Excellence in safety, health and the environment	25	More information is available on our website: Safety, Health & Environment INEOS Group .
403-3	Occupational health services	2.1 Excellence in safety, health and the environment	25	More information is available on our website: Safety, Health & Environment INEOS Group .
403-4	Worker participation, consultation, and communication on occupational health and safety	2.1 Excellence in safety, health and the environment 2.4 Valuing our people	25 62	More information is available on our website: Safety, Health & Environment INEOS Group .
403-5	Worker training on occupational health and safety	2.1 Excellence in safety, health and the environment	25	
403-6	Promotion of worker health	2.1 Excellence in safety, health and the environment 2.4 Valuing our people Case study: INEOS Energy Station	25 62 65	We have several initiatives to support healthy lives. These have a separate page on our intranet and website (Health & Wellbeing INEOS Group). Next to this, we provide information on mental health and nutrition via our intranet.
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	2.1 Excellence in safety, health and the environment	25	More information is available on our website: Safety, Health & Environment INEOS Group .
403-9	Work-related injuries	2.1 Excellence in safety, health and the environment 2.1.1 INEOS' health and safety performance	25 29	More information is available on our website: Safety, Health & Environment INEOS Group and Performance INEOS Sustainability

Child labour – INEOS' key material topic: ethics

GRI #	Disclosure	Chapter	Page	Comments
408-1	Operations and suppliers at significant risk for incidents of child labour	2.5 Governance: sustaining the highest standards of ethics and compliance	67	INEOS will not engage in, and will not tolerate any of its customers, suppliers, distributors or others with whom it does business, engaging in child or forced labour, slavery or human trafficking of any kind. For more information, please visit our Code of Conduct INEOS Group , Anti-slavery act and Supplier Code of Conduct INEOS Group

Child labour – INEOS' key material topic: ethics

GRI #	Disclosure	Chapter	Page	Comments
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	2.5 Governance: sustaining the highest standards of ethics and compliance	67	INEOS will not engage in, and will not tolerate any of its customers, suppliers, distributors or others with whom it does business, engaging in child or forced labour, slavery or human trafficking of any kind. For more information, please visit our Code of Conduct INEOS Group , Anti-slavery act and Supplier Code of Conduct INEOS Group

Disclaimer

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