

The background of the cover is a photograph of an industrial refinery at night. The scene is filled with complex piping, storage tanks, and distillation columns, all illuminated by warm yellow lights. In the foreground, a large, intricate network of pipes and structural steel dominates the lower half. To the right, a tall distillation column with multiple platforms and ladders is visible. The sky is a deep blue, suggesting twilight. On the left side, there are three large, overlapping, semi-transparent blue curved shapes that sweep across the frame. The INEOS logo is centered in the middle of the image, and the title 'Sustainability Report 2022' is to its right.

INEOS

# Sustainability Report 2022

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## About this report

This report, published in October 2022, details INEOS' global sustainability performance as a Group over the 2021 calendar year. It has been produced in accordance with Global Reporting Initiative standards (GRI 1 Foundation 2021) and serves as INEOS' United Nations Global Compact progress report. Selected disclosures in the report have been externally assured by KPMG in accordance with ISAE 3000, as described in the Assurance Report within. Questions or feedback concerning the report should be directed to the following email address: [ineos.sustainability@ineos.com](mailto:ineos.sustainability@ineos.com).

INEOS reports on sustainability performance at Group-level in relation to the legal entity INEOS AG. INEOS AG is a private company that is incorporated in Switzerland and headquartered in Rolle, with additional Group headquarters in London. It is ultimately owned by Sir Jim Ratcliffe, Andy Currie, and John Reece and had operations in 29 countries in 2021. INEOS AG does not produce consolidated financial accounts but three of its major subsidiaries do, namely INEOS Enterprises Holdings Limited, INEOS Industries Limited, and INEOS Group Holdings SA.

These consolidated accounts are produced annually for each calendar year, which is consistent with INEOS' Group-level sustainability reporting.

The INEOS AG sustainability reporting boundary covers all the entities in the consolidated financial accounts of these three major subsidiaries, which includes the Petroineos and INEOS Infrastructure (Grangemouth) Limited joint ventures that are connected to the owners of INEOS AG. In addition, it covers all remaining INEOS AG entities, namely our petrochemical assets in Lavera, the French and Italian assets of INEOS O&P South, and our sports and fashion businesses.

INEOS keeps an inventory of all its sites and facilities, which classifies each as belonging to a subsidiary, joint operation, joint venture, or associate, in accordance with IFRS definitions and our consolidated financial accounts. This inventory is updated every year to take account of structural changes and ensure that the consolidation of sustainability data is performed accurately for the reporting period. Adjustments due to structural changes are made on an all-year/same-year basis.



When consolidating environmental data from entities within the reporting boundary, INEOS excludes non-manufacturing locations on the grounds of materiality and follows the Financial Control approach as defined in the GHG Protocol. As such, we fully consolidate data from subsidiaries, proportionally consolidate data from joint operations and joint ventures at equity share, and do not consolidate data from associates or minor investments. In addition, we fully consolidate data from leased ships where INEOS is the lessee. When consolidating social and governance data, INEOS includes non-manufacturing locations and consolidates data from joint operations and joint ventures fully.



# 1

## General overview

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### 1.1.1 Statement from our Chairman and CEO



## 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 have set a reduction target of 33% by 2030. We only make pledges that we can 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 & mobility,  
clothing and apparel  
construction and transmission of water & 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 and CEO

### 1.1.2 Views from our leadership



"Sustainability is fundamental to how we do business.

Our products are essential for society and support sustainability based on performance, affordability and environmental footprints. We are committed to the Group's net zero emission target by no later than 2050. With our roadmap, we aim to lead this transition and to remain profitable, staying ahead of evolving regulations and legislation.

INEOS, and INEOS Oxide in specific, has set ambitious but achievable targets for 2030 in line with our 2050 commitment, resulting in investment projects to ensure sustainable production."

**Tobias Hannemann,**  
CEO INEOS Oxide



"INEOS manufactures many of the essential ingredients used to make products that are playing a key role in the transition to a more sustainable world.

We are committed to making, trading and transporting these products with increasing efficiency and reduced emissions as we transition to net zero."

**Oliver Hayward-Young,**  
COO INEOS Trading & Shipping



"INEOS has the passion, know-how, and determination to make a sustainable difference inside and outside of our organisation.

Our employees are empowered to be active and participative custodians; to put their safety and wellbeing (and that of their colleagues) at the forefront of everything they do and to be socially conscious and mindful of the impact they have.

The entrepreneurial foundation of INEOS has fostered a culture where anything is possible, where ownership is for everyone and where change is to be embraced. This is the key to our continued success."

**Alison Mills,**  
HR Director INEOS Acetyls and Nitriles



"The sustainability of our business and operations is central to the way we work. It is of critical importance to our employees, to our partners and customers. INEOS Olefins & Polymers Europe are proud to have achieved RSB certification of our sites. Our offer of bio-attributed olefins and polymers is another concrete step for INEOS along the path towards a more circular and sustainable economy.

We are also using more recycled plastic as a raw material, and we now offer a range containing 50% recycled content, without losing essential properties that our customers need. It shows that our plastics can be successfully recycled and re-used in value added applications."

**Liz Rittweger,**  
Business Director INEOS O&P Europe North



### 1.1.3 A word to our Investors

Following the Paris Climate Agreement of 2015, many nation states have set the goal to achieve a net zero emission economy by 2050 and are adopting regulations and legislation to support this. In response, INEOS has committed to be climate neutral by 2050.

INEOS businesses have put in place roadmaps to achieve this commitment, whilst staying ahead of evolving regulations and legislation, and remaining profitable by pursuing new business opportunities that come about from this change. We have already undertaken actions and improvements are already in hand.

As part of this effort, we are also investing in new products and technologies to drive the industry toward a circular economy in which materials are reused to the maximum extent, and no products, once used, enter the natural environment.

**Dr. Peter Williams,**  
INEOS Group Head of Investor Relations



## 1.2 INEOS in profile

### 1.2.1 INEOS at a glance

**INEOS is a global manufacturer of petrochemicals, speciality chemicals and oil products.**

In 2021 we operated 36 individual businesses, with 181 facilities in 29 countries. In recent years our business has grown with the creation of INEOS Automotive and INEOS Hygienics, the acquisition of BP Aromatics and Acetyls, the acquisition of the iconic British brand Belstaff, and our ever-expanding sports portfolio.

We see opportunities where others see issues. We add value in pursuit of our core values with a passion for challenge and adventure.

36  
BUSINESSES

181  
SITES

29  
COUNTRIES



## 1.2.1 INEOS at a glance

(continued).

66m

TONNES OF  
PRODUCT

\$65bn

TURNOVER

25k

EMPLOYEES



## KEY

- Manufacturing Sites (91)
- JV sites (14)
- Platforms\* (11)
- Other (65)

\*Platforms include INEOS  
Energy/FPS & O&P USA.

## 1.2.2 Our structure

- Top Company
- Joint Venture
- Holding company
- INEOS Business
- Consumer businesses and sports

**INEOS is led by its founder and chairman Sir Jim Ratcliffe and co-owners Andy Currie and John Reece. The company operates according to a federal structure and system of governance where each INEOS business has its own executive board and is directly accountable to INEOS' shareholders for its performance**

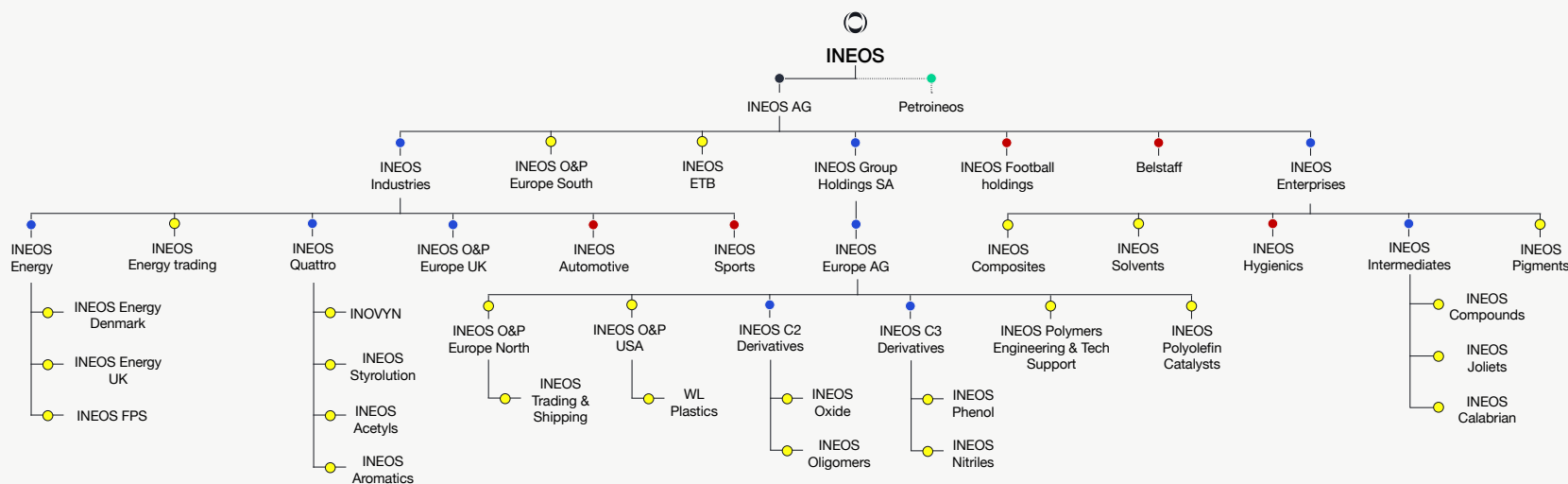
Although each business is responsible for its own management, it must operate in accordance with INEOS' Group-wide policies and targets, including those concerning sustainability, which are detailed below.

The executive board of each INEOS business comprises a chairperson who is accountable for approving business strategy and investments, a CEO who is nominated and selected by INEOS' shareholders to oversee the overall management of the business, and directors of operations, business, procurement, and HR.

Each business is responsible for all its functions, including business management, finances, operations, procurement, IT, HR, communications, banking, legal, and tax.

Each INEOS business reports on its performance to INEOS' shareholders throughout the year via regular executive committee meetings and half-yearly CEO days.

In addition, every year the CEO of each business must submit a letter of assurance to INEOS' shareholders confirming that their business is running according to Group-wide operational and financial standards.





### 1.2.2.1 Significant structural changes in 2021

INEOS launches global consumer healthcare business under the name INEOS Hygienics.



INEOS builds hand sanitiser plants in the UK, US, France, and Germany.



INEOS completes the acquisition of BP's global Aromatics & Acetyls business.



INEOS Automotive confirms acquisition of Hambach production site from Mercedes-Benz.



INEOS launches a new clean hydrogen business to accelerate the drive to net zero carbon emissions.



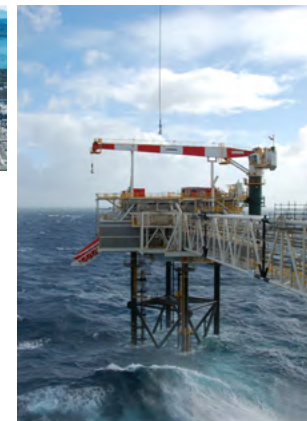
INEOS O&P USA acquired Sasol's ownership of Gemini HDPE LLC.



INEOS Energy sells its Norwegian oil and gas business to PGNiG.



INEOS Enterprises completes the sale of its Sulphur Chemicals business to International Chemical Investors Group.



INEOS Energy acquires all oil and gas interests from HESS Corporation in Denmark.

### 1.2.3 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.

01 Adhesives



02 Agriculture



03 Automotive



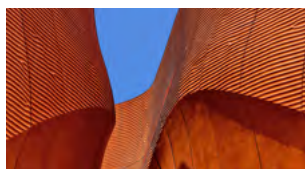
04 Chemicals



05 Coatings



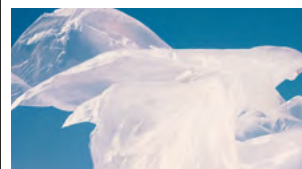
06 Construction



07 Cosmetics



08 Film &amp; sheet



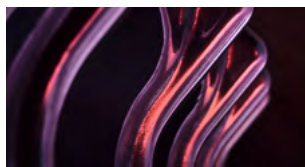
09 Food



10 Home &amp; electronics



11 Manufacture



12 Medical &amp; pharma



13 Packaging



14 Paint &amp; ink



15 Pipes



16 Pulp &amp; paper



17 Rubber &amp; tyre



18 Textiles



19 Wire &amp; cable





## 1.2.4 Our key values and 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.**

INEOS is committed to finding scientific and engineering solutions to global challenges. We use our creativity to solve problems and move quickly to achieve change. 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.

### Challenge



We challenge ourselves, and those we deal with, to make things happen. We have high standards and strive for excellence. We take intelligent risks to move beyond the status quo.



### Creativity



We like to be maverick and swim against the tide. We engineer creative, original and innovative solutions to problems that others find difficult to solve.



### Spirit



We foster an industrious and ambitious culture, and make sure that we enjoy our work. We want INEOS people to have fun, be healthy, develop their talents and thrive in their roles.



### Safety



Our commitment to safety, health and the environment comes before anything else. The rules cannot be broken. They are there to protect people, both inside and outside the business, and the planet from harm.



### Ownership



We are empowered and accountable, behaving as entrepreneurs for our business. We act decisively at speed, spotting opportunities and bringing them to life.



### Manners



Good manners show respect for our colleagues, customers, suppliers and communities. We have high standard of behaviour, working with honesty and integrity.





### 1.2.5 Review of 2021 performance

**In a year dominated by a global pandemic, pricing volatility and widespread uncertainty, INEOS' ethos has been to adapt, evolve and grow.**

**One of the hangovers of the COVID-19 pandemic has been a significant change in consumer behaviour and the pull through for products has been phenomenal, which has been reflected in our strong business performance.**

Challenging market conditions did little to dampen INEOS' ambition and progress in 2021. In fact, despite the many distractions, momentum continued – with bold new projects, continued investment, and steady progress towards net zero. The situation has only served to demonstrate how well INEOS can cope with whatever comes its way and flourish.

**“Nobody could ever have forecast what's been happening, but we've had another successful year and any negatives have been far outweighed by the positives,”**

—Tom Crotty, Director of Corporate Affairs.

We started 2021 with the massive \$5 billion acquisition of BP's aromatics and acetyls business and went on to invest in many other sustainability and normal organic growth projects. The year also saw the establishment of an entirely new venture, INEOS Energy, headed by former BP CFO Brian Gilvary as Chairman and David Bucknall as CEO.

We are strong believers that there is going to be a need for traditional oil and gas for at least the next 30 years as we transition to net zero: you can't just turn the tap off tomorrow. But we are focused

on improving the sustainability of our core business and rebalancing our portfolio, so we are well positioned to thrive during this transition.

Some of the biggest sustainability milestones in 2021 include our £1 billion investment in the net zero transition of the Grangemouth site in the UK, the building of a new blue hydrogen plant, and the capture and storage of a million tonnes of carbon dioxide (CO<sub>2</sub>).

INEOS has now moved out of the Norwegian oil and gas sector and focused its interests on the more mature Danish fields, where we see vast potential for CO<sub>2</sub> storage in the North Sea. The Danish government is providing a DKK 197 million (€26 million) grant to our Greensand project that will inject CO<sub>2</sub> into depleted oil fields in the North Sea for permanent storage. The second phase has been agreed and a pilot project is planned.

An important part of energy transition for INEOS will be an increased focus on hydrogen. We see blue hydrogen as a promising route to reduce emissions at certain facilities in the short term, and we are uniquely placed to exploit green hydrogen opportunities as Europe's largest

operator of electrolysis. In July last year, INEOS Energy agreed to provide cornerstone funding to HydrogenOne, London's first listed fund dedicated to clean hydrogen. We then announced we will invest \$2 billion in green hydrogen projects across Europe over the next ten years, including in Norway, Germany, Belgium, France, and the UK.



### 1.2.5 Review of 2021 performance

(continued).



On the petrochemicals side of the business, there have been many significant successes this past year – notably with the integration of BP's aromatics and acetyls businesses. We now have the complete chemistry set with the whole of the acetyls value chain, offering significant opportunities. And with aromatics, we're integrated in the polyethylene terephthalate (PET) chain and have acquired a promising recycling technology called Infinia as part of the deal.

The £500m rejuvenation of the aging Forties Pipeline System continues to make good progress and scheduled maintenance that had been delayed from the previous year has now been completed. As part of its overhaul, INEOS FPS also announced plans to introduce artificial intelligence (AI) technology to take energy management to another level. By harnessing all available data, AI will be able to quickly test different operating scenarios and outcomes, further reducing CO<sub>2</sub> emissions and potentially allowing for the technology to be applied across other sites.

The landmark €3bn+ petrochemical complex in Antwerp, Belgium, has been granted its

environmental permit mid-2022 allowing construction work to commence on the site. The 1.45m tonne ethane cracker will be the largest investment in European petrochemicals in a generation and targets to be operational by end 2026. It will be the most efficient cracker in Europe.

Meanwhile, the Jubail 2 plants in the Kingdom of Saudi Arabia are also on track, as is the building on INEOS' position in China, which remains a key area of focus as well.

In terms of progress and growth, for our consumer brands, it's been a good year for the Hygienics business. INEOS Hygienics – launched during the early stages of the COVID-19 pandemic and pivotal in supplying the NHS with essential hand sanitiser – has gone from strength to strength. New products continue to be introduced and the brand is flourishing.

Similarly, 2021 has been a huge year for the Grenadier – our no-nonsense off-road vehicle – as the business integrated the new manufacturing facility in Hambach acquired from Mercedes-Benz at the end of 2020. The acquisition secures the future of the site and safeguards many jobs that

might otherwise have been lost. 2021 also saw INEOS Automotive announce that a hydrogen fuel cell version of the Grenadier is being developed – again tying in with INEOS' focus on a new hydrogen economy.

And, of course, INEOS is still very much focused on being the best beyond the world of petrochemicals, manufacturing, and healthcare too. Under the guidance of the newly appointed Director of Sport, Sir Dave Brailsford, INEOS is partnering with some of the world's greatest and most successful teams in cycling, sailing, football, Formula 1, and now rugby with the New Zealand All Blacks.

The company's philanthropic contributions have also continued through support and backing for various charities and educational initiatives. A particular highlight was the donation of £100m to create the new INEOS Oxford Institute to fight antimicrobial resistance (AMR), which is becoming of increasing concern globally.

Certainly, the company's performance has been outstanding in 2021 despite the toughest of circumstances. In many respects, this is just the beginning of an exciting new era.

## 1.3 INEOS and sustainability

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, waste, and pollution in a way which drives us all towards a net zero emissions economy by 2050.

Our approach to sustainability focuses on seven key areas around which this report is organised.

### 1 Climate change



Advancing the transition to net zero in our industry

[Read more](#)



### 2 Circular economy



Maximising resource efficiency and eliminating waste

[Read more](#)



### 3 Zero pollution



Driving progress towards sustainable chemical value chains

[Read more](#)



### 4 Our people



Prioritising workplace health and safety (SHE) and fairness

[Read more](#)



### 5 People in our value chain



Safeguarding conditions and human rights

[Read more](#)



### 6 People in our communities



Respecting and supporting local communities

[Read more](#)



### 7 Governance



Maintaining the highest standards of ethics and compliance

[Read more](#)





### 1.3.1 Our commitments and policies

**Sustainability is fundamental to how INEOS operates. We seek to advance sustainability in society through our innovative products and processes, and we are committed to minimising the negative impacts of our operations on people and planet.**

We strive to cause no harm to employees, local communities, and customers, and we work to achieve climate neutrality, circularity, and zero pollution in our value chains, while avoiding adverse impacts on water scarcity and biodiversity. We aim to meet or exceed all sustainability regulatory requirements and we recognise our obligation to reduce greenhouse gas emissions consistently with Paris targets.

INEOS supports the 17 UN Sustainable Development Goals, and we apply the principles of the United Nations Global Compact (UNGC) across our operations. All our businesses and

employees are required to follow our **Code of Conduct**, which is based on the 10 UNGC principles; the United Nations Guiding Principles on Business and Human Rights; the International Labour Organization Declaration on Fundamental Principles and Rights at Work; and the Responsible Care Global Charter.

Our [Code of Conduct](#) governs our activity as a Group in relation to health and safety, the environment, fair competition, ethical business, political engagement, financial integrity, working conditions, digital security, and human rights. All INEOS Business CEOs are asked to sign off on the principles outlined in our Code of Conduct through social accountability statements.

To promote sustainable practices in the value chain, INEOS requires suppliers to follow its **Supplier Code of Conduct**, which is based on the same internationally recognised standards as our own Code of Conduct, in addition to the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

Our [Supplier Code of Conduct](#) sets out our expectations of suppliers with respect to health and safety, environmental protection, labour practices, human rights, and ethical business.



### 1.3.1 Our commitments and policies

(continued).

INEOS also has a dedicated Group-wide **Safety, Health, Environment and Quality** Policy. Our [SHEQ policy](#) includes our policies on climate change, circular economy, zero pollution, water, and biodiversity. As part of this policy, all INEOS businesses are required to operate in accordance with INEOS' 7 Life Saving Rules and 20 Principles of behavioural and process safety.

All sites follow SHEQ best practice as set out in an extensive suite of internal standards called INEOS Group Guidance Notes (IGGNs), which are designed to meet or exceed relevant ISO standards. The precautionary principle is fundamental to our management approach, ensuring we avoid harming human health or the natural environment.

INEOS has publicly pledged to reduce its operational greenhouse gas emissions by **33% by 2030** (compared to 2019) and reach net-zero greenhouse gas emissions by 2050. We have set the target of increasing the share of green power in our electricity mix by 10% by 2030 (compared to 2019).

INEOS has also pledged to increase the circularity of its plastics operations by 2025 by offering polyolefin products for packaging applications with at least 50% recycled content; using 30% recycled content (on average) in products for polystyrene packaging in Europe; using at least 325'000 tonnes of recycled material in our products; and ensuring 100% of our polymer products can be recycled. We plan to update our plastic circularity targets for 2030 before the end of 2022.

INEOS is a signatory to the United Nations Global Compact and the Responsible Care Global Charter, and participates in numerous value-chain sustainability initiatives, such as Operation Clean Sweep, the Polyolefins Circular Economy Platform, and the Circular Plastics Alliance.

We are committed to transparency and open communication on our sustainability performance. In addition to publishing an annual sustainability report, we apply for sustainability ratings from Sustainalytics and EcoVadis and disclose information concerning our climate and water performance through the Climate Disclosure Project (CDP).

**INEOS has publicly pledged to reduce its operational greenhouse gas emissions by 33% by 2030 (compared to 2019) and reach net-zero greenhouse gas emissions by 2050.**



### 1.3.2 Our material topics

**To inform our sustainability strategy and reporting, INEOS identifies topics that are material for the Group by undertaking regular materiality assessments. For this report an assessment was conducted in accordance with the Global Reporting Initiative GRI 3 standard, where materiality is defined in terms of impact on the economy, environment, and people.**

The following topics were identified as material on this basis: **climate change, circular economy, pollution, water, workforce safety, working conditions, and political influence.**

The assessment was conducted by the Group sustainability team, with oversight from senior executives, involvement of compliance and legal managers, and assistance from an external consultancy.

The team followed a four-step process:

- 1) mapping out INEOS' operations, stakeholders, business relationships, and global sustainability context;
- 2) identifying relevant sustainability impacts by consulting expert sources;
- 3) assessing and scoring the impacts for material significance; and
- 4) selecting the most material

impacts and grouping them into topics. The expert sources we consulted included the GRI 11 Oil & Gas standard; the SASB sector-specific standards for chemicals, automobiles, and oil and gas; all relevant GRI topic standards; the TCFD framework; and the draft European Sustainability Reporting Standards.

We also surveyed stakeholders (see table 16 in 2.3 sustainability data on stakeholder engagement), including employees, customers, suppliers, investors, industry associations, universities and scientific institutions, regulators, communities, and NGOs. In addition, we consulted previous materiality analyses conducted across INEOS, as well as feedback from sustainability rating companies, such as EcoVadis, Sustainalytics, and CDP.

Taking a value-chain perspective, we identified 150 impacts of relevance to INEOS, each classified as actual or potential, negative or positive. The list comprised outward impacts on the economy, environment, and people, as well as a range of business risks and opportunities for INEOS. All GRI 11 topics and impacts related to human rights were included.

Four experts on the Group sustainability team scored the impacts for significance following OECD principles, with consideration of scale, scope, irremediable character, and likelihood. Internal data on environmental, social, and governance performance, including from whistleblowing mechanisms, was used to inform the scoring.

The team ranked the impacts and applied a threshold to select those that were most material based on their expert judgment and through comparison with reporting standards and how stakeholders rated topics in INEOS' stakeholder consultation. The chosen impacts were then grouped into seven material topics and relevant GRI topic standards were identified for the purposes of reporting disclosures, as shown below.

These topics largely cover the same ground as the topics named in our 2021 report, but we have delineated them differently to better align with the draft European Sustainability Reporting Standards and global sustainability context. Specifically, 'GHG Management' and 'Energy Management' have been combined with 'Climate Change'; 'Waste Management' has been combined with

'Circular Economy'; 'SHE and REACH' has been split into 'Workforce Safety', and 'Pollution'; and 'Ethics' has been replaced with 'Working Conditions' and 'Political Influence'.

In this report our disclosures on water have been integrated into the circular economy chapter, our disclosures on workforce safety and conditions are combined in the chapter on our people, and our disclosures on political influence can be found in the chapter on governance.

In the interests of transparency, the chapters on governance and people outside of our operations also contain general information on topics that are not material for INEOS, such as human rights, anti-bribery and corruption, anti-competition, and IT security.

TOPIC	GRI STANDARDS
<b>Climate change</b>	GRI302 energy, GRI305 emissions, GRI201(-2) economic performance
<b>Circular economy</b>	GRI301 materials, GRI306 waste
<b>Zero pollution</b>	GRI306 waste, GRI303 water, GRI305 emissions
<b>Water</b>	GRI303 water
<b>Workforce safety</b>	GRI403 occupational health and safety
<b>Working conditions</b>	GRI404 training and education
<b>Political influence</b>	GRI415 public policy



### 1.3.3 Sustainability governance



**As detailed above, INEOS has Group-wide policies governing its sustainability performance, including our Code of Conduct, Supplier Code of Conduct, SHEQ policy, 7 Life Saving Rules, 20 Principles of Behavioural and Process Safety, and our suite of INEOS Group Guidance Notes.**

We also have Group-wide targets to reduce greenhouse gas emissions and improve the circularity of our polymer products. These policies and targets govern our management of cross-business topics that we have identified as material, as well as wider environmental, social, and governance matters.

Company-wide policies and targets are developed by the INEOS Group functions teams in consultation with each of our businesses through cross-business networks. This includes the Climate and Energy Network, as well as our networks for Operations, Procurement, Legal, Accounts, and HR. Group-wide policies and targets are then endorsed and enforced through INEOS' federal reporting structure. Central to this process, is our Group-wide data collection platform, which allows us to monitor our impacts, identify sustainability priorities, and track targets at business and Group level.

In line with Group policies and targets, each INEOS business is responsible for delivering its own sustainability strategy. This includes implementing 2030 climate roadmaps and plans to improve the circularity of plastic products, as well as establishing management systems

to optimise energy consumption, minimise environmental impacts and health and safety risks, and operate in full compliance with INEOS' Code of Conduct, which covers working conditions, human rights, digital security, and financial integrity.

On each business board, Operations Directors are responsible for overseeing Safety, Health, and Environmental (SHE) performance and climate roadmaps. Procurement Directors are responsible for overseeing sustainable procurement. HR Directors are responsible for overseeing working conditions and human rights. And Business and Finance Directors are responsible for overseeing ethical business conduct and IT security. When an INEOS business develops its own sustainability policies to complement Group-wide policies, they are expected to include the following:

1. commitments to raise awareness and implement measures,
2. quantitative and/or qualitative targets (where relevant and possible), and
3. approval of senior management or the board.

Each board reports to INEOS' shareholders on its sustainability performance throughout the year at Executive Committee meetings and half-yearly CEO Days.

In addition, all CEOs must confirm that their business is meeting Group-wide sustainability standards in their annual letter of assurance to INEOS' shareholders. The climate and SHE performance of each business is tracked at Executive Committee meetings using business specific KPIs and executive bonuses are partly conditional on meeting SHE targets.

All INEOS businesses have a dedicated employee or team that is responsible for managing sustainability performance in relation to the environment, workforce, ethics, and procurement. In the vast majority of cases, there is also a dedicated employee or team at site level. How responsibility for sustainability is delegated across our businesses and sites is set out in tables 10-13 in the annex.

### 1.3.3 Sustainability governance

(continued).

Networks are fundamental to INEOS' system of sustainability governance due to our federal structure. As well as playing a critical role in developing Group-wide policies, as mentioned above, our cross-business networks are used to disseminate information on Group policies and targets, share sustainability best practice, and collaborate on managing cross-business sustainability issues.

INEOS' **Climate and Energy Network (CEN)** is coordinated at Group level via a steering group that oversees eight teams working on a comprehensive range of sustainability topics. Leads are appointed within the network to represent each INEOS business and country of operation, and ultimate governance is provided by our CEOs and Directors.

News reports are distributed to all members weekly, steering group calls and mailings happen monthly, and the network holds an annual meeting. Young members of CEN also have a dedicated call every two months to discuss CEN issues.

#### The INEOS Climate and Energy Network



INEOS **Operations Directors** meet three to four times a year on manufacturing excellence days to discuss matters such as SHE performance, ISO management systems, energy efficiency audits, water and waste audits, and emission reduction plans.

INEOS **Procurement and Business Directors** meet every two months to discuss matters

such as implementing INEOS' Supplier Code of Conduct, sourcing sustainable feedstock, purchasing emissions allowances, calculating product footprints, and exploring power purchase agreements (PPA).

INEOS **HR directors** have monthly meetings to discuss matters such as workforce data, the composition of INEOS' workforce, training and

career development, working conditions, human rights, ethics, and INEOS' Code of Conduct.

INEOS **CFOs** meet on an ad hoc basis to discuss matters such as carbon pricing, carbon border adjustments, energy taxes, roadmap investments, investor relations, sustainable financing, and ESG disclosures.

### 1.3.4 Contributing to the UN SDGs

## 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). In addition, INEOS' materials are 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 operator of electrolysis technology for producing 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 that reduce raw material consumption, prevent waste, 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 a signatory to the Responsible Care Global Charter since 2015. We also invest in mechanical and advanced recycling as shown by the RSB and ISCC PLUS 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. We aim to give waste plastic value to ensure it is recycled at the end of its life (goal 14).



### 1.3.4 Contributing to the UN SDGs

(continued.)

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

#### 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 and has launched a new clean hydrogen business that will increase the share of renewable energy in the global energy mix. Moreover, our materials make innovation in renewable energy possible. This includes the production of 100-meter-long wind turbine blades and synthetic oils to extend the service life of wind turbine gearboxes.

See chapter 2.1.4.1 on clean energy sources to run our operations for more info.



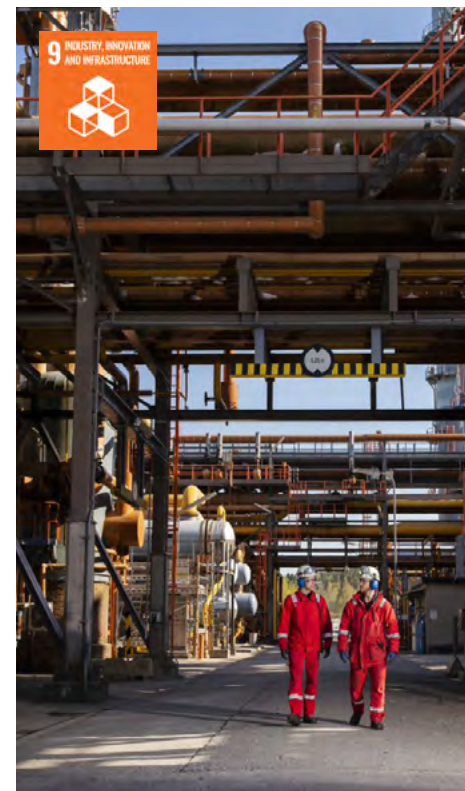
#### SDG 9.4

**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 is working to reduce its climate impact across its businesses through resource efficiency projects and investing in climate roadmaps to reach net zero by 2050, as set out in chapter 2.1.4.

We share best practice via our Climate and Energy Network and through collaborative initiatives.

We invest in best available technologies, such as our ground-breaking Project ONE facility, which will be one of Europe's best-performing olefin complexes in Antwerp in terms of its environmental footprint.



### 1.3.4 Contributing to the UN SDGs

(continued.)

#### SDG 12.5

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

INEOS is 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.

We are a signatory to the Responsible Care Global Charter and are 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.

More information on Responsible Care, REACH and product stewardship can be found in section 2.3.2.1 and 2.3.2.2, and how we manage our hazardous and non-hazardous waste in section 2.2.2.



#### 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 consumption and waste disposal, and support circular business models.

[See our website](#) for a list of our corporate memberships, industry charters and management standards.



### 1.3.5 Sustainability highlights

## INEOS continues to improve its performance year after year.

#### FEBRUARY 2021

A first in Belgium: INEOS Phenol and ENGIE use hydrogen in industrial plant in Antwerp

- INEOS Phenol & ENGIE use hydrogen in an industrial plant | INEOS Group

#### APRIL 2021

Advanced Plastic Recycling from INEOS Olefins & Polymers USA Receives ISCC+ Certification

- INEOS Olefins & Polymers USA gains ISCC PLUS Certification | INEOS Group

#### MAY 2021

BIOVYN™ provides a sustainable solution for fossil-free construction

- BIOVYN™'s sustainable solution for fossil-free construction | INEOS Group

#### MAY 2021

INEOS and LACTEL partner to produce the world's first HDPE Milk Bottles from advanced recycling

- INEOS x LACTEL partnership to produce the first HDPE Milk Bottles

#### JULY 2021

INEOS Energy announces £25 million cornerstone backing for HydrogenOne, London's first listed fund dedicated to clean hydrogen.

- INEOS Energy announces £25 million cornerstone backing for HydrogenOne

#### 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 CO<sub>2</sub> 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 CO<sub>2</sub> by 2027

#### AUGUST 2021

Consortium members agree to back Greensand, carbon storage pilot project, in support of Denmark's ambitious 70% CO<sub>2</sub> reduction targets by 2030

- Consortium members agree to back Greensand, carbon storage pilot project, in support of Denmark's ambitious 70% CO<sub>2</sub> reduction targets by 2030 (ineos.com)





### 1.3.5 Sustainability highlights

(continued).

#### SEPTEMBER 2021

Carbon Capture and Storage Gains Wide Industry Support in Houston

- Carbon Capture and Storage Gains Wide Industry Support in Houston (ineos.com)

#### 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.

- 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.

#### OCTOBER 2021

INEOS announces over €2 billion investment in Green Hydrogen Production

- INEOS announces over €2 billion investment in Green Hydrogen Production

#### OCTOBER 2021

INEOS to take leading role in the hydrogen revolution with launch of hydrogen campaign

- INEOS to take leading role in the hydrogen revolution with launch of hydrogen campaign

#### OCTOBER 2021

INEOS green hydrogen project accelerates towards net-zero future in Germany by 2045

- INEOS green hydrogen project accelerates towards net-zero future in Germany by 2045

#### OCTOBER 2021

INOVYN at Runcorn to ramp up hydrogen supply to fuel trucks buses and power generator sectors

- INOVYN at Runcorn to ramp up hydrogen supply to fuel trucks buses and power generator sectors (ineos.com)

#### NOVEMBER 2021

INOVYN announces project to develop Europe's first hydrogen powered barge for bulk liquid chemical transport

- INOVYN announces project to develop Europe's first hydrogen powered barge for bulk liquid chemical transport (ineos.com)

#### DECEMBER 2021

INEOS FPS rolls out AI optimisation technology for lower emissions

- INEOS FPS rolls out AI optimisation technology for lower emissions

#### DECEMBER 2021

Project Greensand to receive Danish Government funding of DKK 197 million (€26 million) for CO<sub>2</sub> storage in the North Sea

- Project Greensand to receive Danish Government funding of DKK 197 million (€26 million) for CO<sub>2</sub> storage in the North Sea (ineos.com)

#### DECEMBER 2021

INEOS and Petroineos at Grangemouth partner with Plastic Energy in an important breakthrough in the recycling of plastic.

- INEOS and Petroineos at Grangemouth partner with Plastic Energy in an important breakthrough in the recycling of plastic.

#### DECEMBER 2021

Antwerp grants INEOS Olefins Belgium permit for Project ONE

- Province of Antwerp grants INEOS Olefins Belgium permit for Project ONE

## Sustainability Performance and Activities

- |     |  |    |
|-----|--|----|
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## 2.0 Sustainability Performance and Activities

INEOS ENTITIES IN 2021	REGIONS			TOTAL
	EUROPE	AMERICA	ASIA	
# manufacturing sites	65	46	19	134
subsidiaries	55	44	13	112
joint operations/ventures	10	2	6	18
leased/operated ships*	-	-	-	4
# offices > 10 employees	26	11	10	47

To compile the quantitative disclosures in this section, INEOS gathered data from all its locations worldwide.

Environmental data was gathered exclusively from manufacturing sites, on the grounds of materiality, while social and governance data was gathered from all locations, including offices. We refer to the About this Report section for further information on the consolidation of data.

\* INEOS shipping activities are consolidated also when leased operations; INEOS' fleet counts 20 ships divided in four groups: 4 large gas barges, 4 naphtha barges, 4 very large ethane carriers (VLECs) and 8 dragon ships

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 sustainable future.

This section of the report sets out INEOS' sustainability performance and activities in relation to seven key areas for the Group:



### ENVIRONMENT

# 1

#### CLIMATE CHANGE

Advancing the transition to net zero in our industry

# 2

#### CIRCULAR ECONOMY

Maximising resource efficiency and eliminating waste

# 3

#### ZERO POLLUTION

Driving progress towards sustainable chemical value chains



### PEOPLE

# 4

#### OUR PEOPLE

Prioritising workplace health and safety (SHE) and fairness

# 5

#### PEOPLE IN OUR VALUE CHAIN

Safeguarding conditions and human rights

# 6

#### PEOPLE IN OUR COMMUNITIES

Respecting and supporting local communities



### GOVERNANCE

# 7

#### GOVERNANCE

Maintaining the highest standards of ethics and compliance







# Environment



## ENVIRONMENT

## 2.1 Climate change: advancing the transition to net zero in our industry

INEOS is committed to reducing its greenhouse gas emissions in accordance with the Paris Agreement and has a company wide GHG management system in place to reduce emissions to net zero by 2050. All our businesses monitor and report emissions in accordance with the GHG Protocol and have dedicated emissions reduction roadmaps for each of their sites.

Based on these roadmaps, we have set a **company-wide target to reduce scope 1 and 2 emissions by 33% by 2030** compared to 2019, while allowing for growth. This is an important step towards meeting our 2050 net-zero target.

INEOS' site roadmap initiative and 2030 investment plans aim to drive down our GHG emissions, while remaining profitable. To back our plans and take advantage of opportunities offered by the evolving energy and climate environment, we will invest over €6 billion in the years to come. We pursue a broad range of initiatives including:

### Roadmap initiatives

Development of a new hydrogen business

Production of clean hydrogen as a fuel

Purchase of green power to run our operations

Production of recycled plastics brands

Use of bio-based feedstocks instead of fossil-based resources

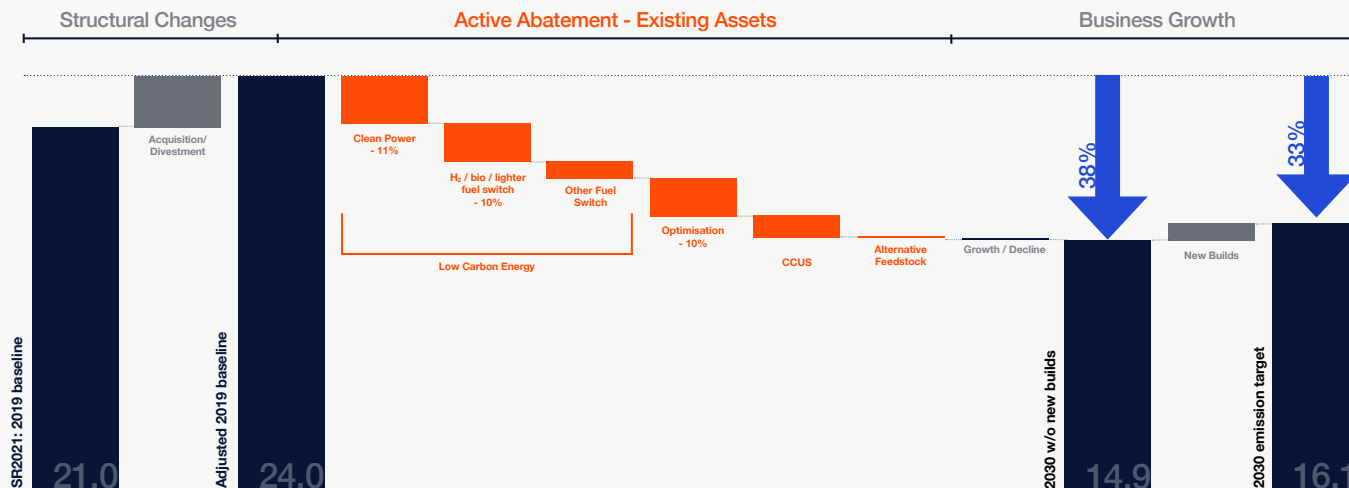
Continuous process optimisation

Implementation of electrification and low-carbon technologies

Capture and utilisation or storage of carbon dioxide (CO<sub>2</sub>)

Partnering with our supply chain to reduce product emissions

Investment in new assets to create a step change in emissions and energy use.





## ENVIRONMENT

## 2.1.1 The INEOS science base

# Science-based method for emissions accounting

The INEOS science base is a verified method to measure our GHG emissions and track our targets. It allows us to report scope 1 and scope 2 emissions compliantly with the GHG Protocol. The method uses the financial control approach with INEOS AG as parent company, including all manufacturing subsidiaries and jointly controlled sites at the share of INEOS ownership.

This includes Petroineos at 50% share but excludes INEOS' sports and fashion entities on the grounds of materiality.

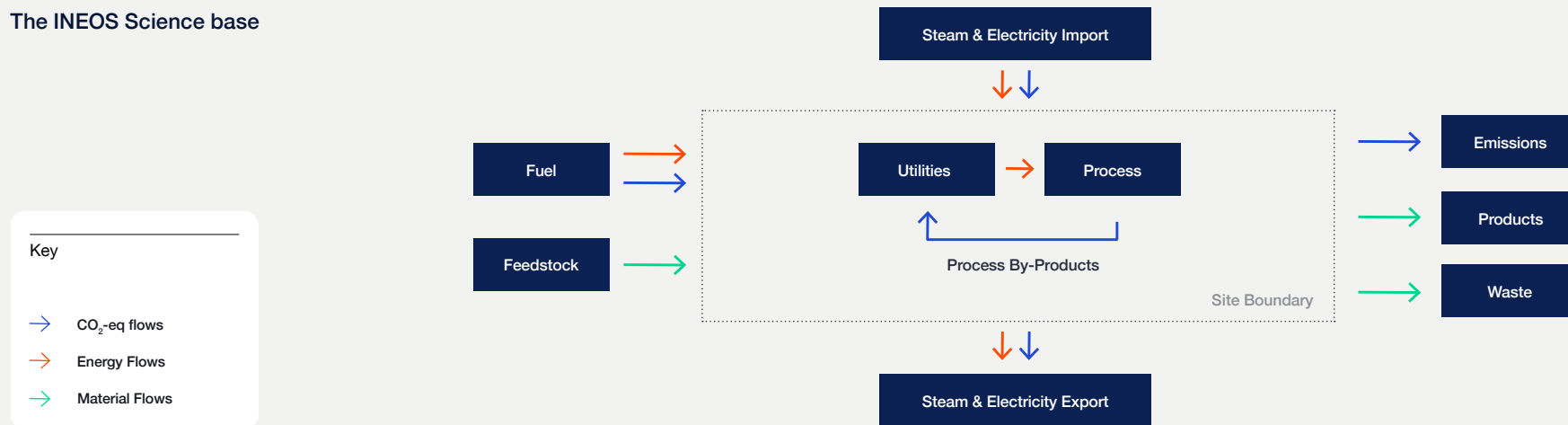
The majority of INEOS' GHG emissions are associated with energy consumption. For our calculations, we use emission factors obtained from suppliers, local authorities, and international standards. In addition to CO<sub>2</sub>, INEOS accounts for emissions from the remaining six Kyoto Protocol gases (CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub>) using Global Warming Potential (GWP) factors from IPCC's 5<sup>th</sup> assessment report.

To ensure correct emissions accounting and prevent double-counting of renewable power, the INEOS science base uses the market-based approach for reporting scope 2 emissions from

energy purchases, recognising the GHG Protocol quality criteria for emission factors. However, for compliance purposes INEOS also calculates location-based scope 2 emissions and reports them in its GHG inventory.

Emissions on exported steam and electricity are excluded from INEOS' footprint but are reported separately in the interest of transparency. Captured CO<sub>2</sub> is also excluded from INEOS' footprint if it is transferred to third parties or embedded in intermediate products used at INEOS' sites.

## The INEOS Science base





ENVIRONMENT

## 2.1.2 GHG emissions

### 2.1.2.1 Scope 1 and 2 emissions

**INEOS monitors its GHG emissions and reports scope 1 and scope 2 emissions on an annual basis according to internationally recognised standards to track progress.**

INEOS has a company-wide climate strategy to reach net-zero emissions by 2050 and reduce emissions by 33% by 2030. To track our progress against a 2019 baseline, we monitor our operational GHG emissions every year according to rigorous accounting standards. In several regions, e.g. Europe and China, our scope 1 emissions are reported to local authorities; such reporting is also verified by third parties.

Using the INEOS science base, our 2021 GHG footprint was 22.8 Mt CO<sub>2</sub>-eq (including CO<sub>2</sub>, and other GHG emissions). This comprised 16.2 Mt CO<sub>2</sub>-eq of scope 1 emissions (71%) and 6.6 Mt CO<sub>2</sub>-eq of scope 2 emissions (29%). It discounts CO<sub>2</sub> that is captured at our sites and transferred to third parties, which amounted to 0.3 Mt in 2021. It also excludes 1.1 Mt CO<sub>2</sub>-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 these emissions in their scope 2 footprints). A detailed GHG inventory according to the GHG Protocol is disclosed in section 3.2 and on our [website](#).

Our core chemical production accounts for 20.5 Mt CO<sub>2</sub>-eq of our footprint, while the remaining 2.3 Mt CO<sub>2</sub>-eq is associated with our other activities, namely refining, exploration and production of oil and gas, activities in the automotive sector, extraction of brine, trading and shipping, and pipeline operations.

The emissions intensity of our core chemical products is 0.415 t CO<sub>2</sub>-eq/t based on manufactured volumes and 0.467 t CO<sub>2</sub>-eq/t based on the sold volumes. This is useful for the purposes of benchmarking and tracking progress as a key performance indicator.

INEOS' company boundary changed significantly in 2021 due to our acquisition of the Acetyls and Aromatics businesses and the Hambach automotive site, as well as the divestment of our smaller Norwegian oil and gas assets. Overall, such structural changes added 3.0 Mt CO<sub>2</sub>-eq to our 2021 footprint and required us to revise up our 2019 and 2020 figures by the same amount.

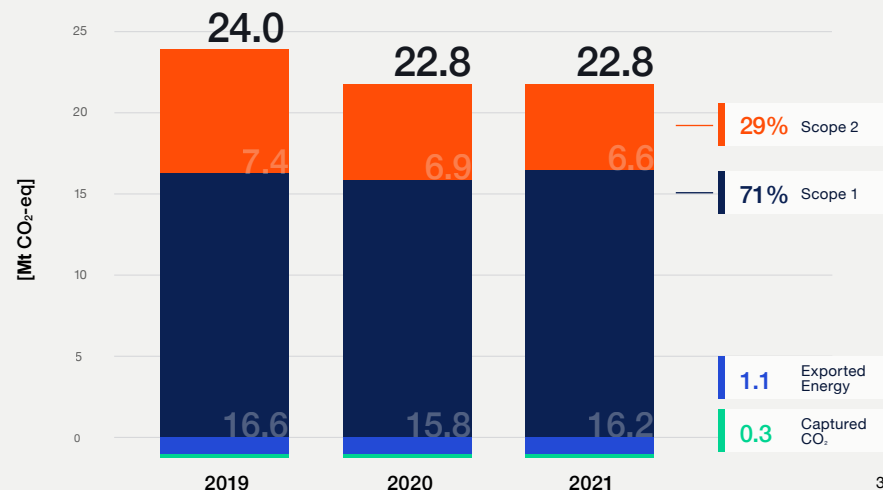
Taking these structural changes into account, INEOS has reduced its carbon footprint by 1.2 Mt CO<sub>2</sub>-eq (5%) since 2019. Given that emissions over this period were unchanged in the businesses we acquired, the reduction can be fully attributed to sites already within INEOS' reporting boundary. Around 0.15 Mt CO<sub>2</sub>-eq of the reduction is due to power purchase agreements starting in January 2021, which are now supplying several INEOS sites in Europe with wind power.

In addition to continuous optimisation measures, year-on-year differences are also explained by disruptions in operations due to shutdowns, turnarounds, unit outages, extreme weather conditions and closure of some production units. COVID-19 also caused lower throughputs at some major sites in 2020, which led to operations at lower capacity versus 2021.

INEOS businesses are planning and implementing abatement measures in line with our mid-term and long-term targets. For example, we have established a new hydrogen business within

INOVYN, we are phasing out carbon-intensive heavy fossil fuels in our operations (Sarralbe in France), we are purchasing green power via PPAs (Antwerp in Belgium, Cologne in Germany), we capture CO<sub>2</sub> from our operations for utilisation (Lavera and Tavaux in France, Antwerp in Belgium, Cologne in Germany), and we continue to explore opportunities for CO<sub>2</sub> storage (Greensand in Denmark, Antwerp@C in Belgium, Acorn in the UK, and Houston in the US). We will continue our investment in abatement projects to advance our climate strategy.

**GHG footprint across all businesses worldwide**





## INEOS Sports scope 1 and 2 emissions

**Across our sports teams, we are developing an integrated sustainability action plan to support the journey to net zero.**

We recognise that not only do our teams have a requirement to reach net zero but have an important role to play in bringing a spotlight to sustainability within sport and amongst the wider public. We demonstrate leadership in this area to improve awareness and understanding of the issues faced and act as a catalyst for change within sport and beyond.

Since negligible in INEOS' manufacturing footprint, our sports (and fashion) initiatives are monitored, tracked, and reported separately.





## ENVIRONMENT

## 2.1.2.2 Scope 3 emissions

**As part of our journey to net zero by 2050, we recognise that we must reduce more than just our operational emissions. The emissions occurring across the value chain, both upstream and downstream, constitute a large share of the overall carbon footprint of INEOS' products..**

Together with our customers, who are increasingly requesting carbon footprints for products, we strive for more responsible sourcing. To enable this, INEOS is in the process of developing our own science-based methodology for calculating product carbon footprints (PCF), which will first focus on upstream scope 3.1 emissions, as well as our scope 1 and 2 operational emissions.

Since most of the chemicals we produce and sell are intermediate products, assessing the associated downstream GHG emissions during further manufacturing, use, and end-of-life stages, would currently require making major assumptions with a high degree of uncertainty. Consequently, given those limitations, INEOS is initially focusing on developing a methodology for emissions ending at our own gate (cradle-

to-gate). The procurement of raw materials is responsible for the largest share of product footprint, which means we can account for a significant proportion of product emissions by taking this approach. Observing the GHG Protocol Product Life Cycle Standard, INEOS' method will aim to incorporate the primary life-cycle stages of our products: material acquisition & pre-processing, and production.

The former includes emissions and removals that result from extracting, processing, and transporting resources up to the point where raw materials reach INEOS' manufacturing sites, while production comprises all emissions related to the operation on our sites.

For each category in both stages, the method includes a subset of calculations sorted by priority for all INEOS businesses to follow. As a principle, direct supplier input is preferred over average data where this is certified or using a recognised data source. However, due to availability, authenticity, or confidentiality issues, certified and accurate supplier-specific data are not yet common practice. Consequently, INEOS' method would include the use of a set of third-party databases with averaged or modeled emissions for purchased feedstocks.

In parallel with the initial product carbon footprint assessment of our products, INEOS actively monitors the changing policy landscape and engages further with suppliers and wider value

chain actors to develop a sector standard and increase the share of primary data in product footprint calculations.

Some of our leading businesses have taken the first steps on this journey:

Our INOVYN business is the first European chemical company to have completed a full suite of Environmental Product Declarations (EPDs) for all their chlor-alkali and PVC products from all sites, confirming its position as Europe's lowest carbon producer ([read more here](#)).

In 2019 and 2020, Styrolution conducted product carbon footprint calculations on some of their key products at grade level (such as GPPS, HIPS or ABS), which are partly produced out of recycled and bio-feedstocks. This has helped them assess the benefits of eco-sourcing as an approach to delivering circular, low-carbon products.

Our Mercedes-AMG Petronas Formula One team has committed to halving their scope 3 emissions by 2026 and achieving net zero emissions by 2030.



Product carbon footprint calculations help INEOS identify hotspots for GHG reduction in our value chain. This is complementary to our 2030 roadmaps, which specifically focus on reductions in the production stage.

By combining product carbon footprint and site emission reduction efforts, we drive our chemicals strategy for sustainability forward at INEOS.





## ENVIRONMENT

**INEOS Fashion  
scope 3 emissions**

**INEOS' Belstaff business is an established, well-respected clothing brand that recognises sustainability as a core value.**

Belstaff's 'sustainable by design' philosophy is driven by the belief that clothing should last a lifetime, not just for the season, and many of its lines incorporate recycled or reclaimed materials into hard-wearing clothing.

For Belstaff, sustainability is a 'must have'. Not just because fashion consumers are increasingly sustainability conscious, but also due to the evolving international regulatory environment.

Belstaff is committed to minimising its value chain impacts by sourcing materials in an ethical, low-impact way. It has developed a three-year 'supply chain' sustainability roadmap and associated communication strategy and requires suppliers to sign a Vendors Code of Conduct. Suppliers' premises are audited to check compliance with the code.

As with our sports businesses, sustainability progress with INEOS' fashion initiatives is monitored, tracked, and reported separately.



## ENVIRONMENT

## 2.1.3 Energy

**As an energy-intensive industrial company, energy-related emissions account for the majority of our operational GHG footprint and energy efficiency is critical to our competitiveness.**

Striving for continuous improvement of our site operations worldwide makes good business sense, not only to reduce costs but to increase INEOS' resource efficiency and drive our emission reduction strategy.

As part of our management approach, we collect and analyse energy data by site, business and across the company, providing a comprehensive overview of the energy use and sources for the group. This enables us to identify further areas for process improvement or refurbishment through technology optimisation or fuel switching. Both abatement pathways are key levers in the emission reduction roadmaps at each INEOS site.

INEOS' energy footprint in 2021 was 345.5 PJ. This breaks down to 278.5 PJ fuel consumption, 41.2 PJ net electricity consumption, 25.7 PJ net steam and hot water consumption, and 0.1 PJ net other utilities consumption. Fuel consumption breaks down to 255.8 PJ fossil fuels, 22.4 PJ

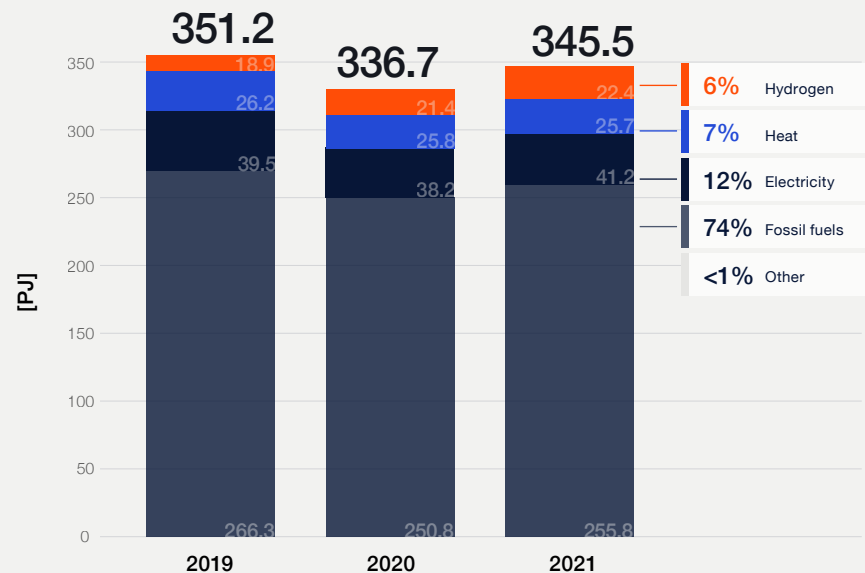
hydrogen and 0.2 PJ renewable fuels. Other utilities include mainly cooling and compressed air imported from third parties near our sites. INEOS meets a significant share of its electricity and steam need with its own combined heat and power plants (CHP) and boilers.

The energy consumed by these utility systems is included in our fuel consumption figures. In addition to natural gas, process off-gasses are valorised through combustion within these utility systems and we are exploring opportunities to fire cleaner fuels, such as hydrogen. Excess electricity, steam and hot water are exported to third parties and the grid. INEOS exported 5.6 PJ electricity and 13.5 PJ steam and hot water in 2021.

Corresponding to our GHG footprint, INEOS' energy footprint changed significantly due to recent acquisitions. The acquired sites increased our energy consumption by 26.4 PJ on an annual basis, but our 2021 energy footprint was 2% lower than our 2019 baseline due to continuous optimisation projects at several INEOS sites. Our energy consumption was 3% higher in 2021 than 2020 as a result of production levels returning to normal after being suppressed in 2020 due to COVID-19.

The energy intensity value per tonne of chemicals manufactured at INEOS sites in 2021 stands at 6.333 GJ/t versus 6.585 in 2019. The improvement is allocated to the more efficient performance of chemical plants when running at higher production rates. The energy intensity

## Energy footprint across all businesses worldwide



per tonne of product 'sold' in 2021 is 7.130 GJ/t. The intensity value is based on final energy consumption, including fuels, electricity, steam, and other utilities at INEOS chemicals sites, excluding refining, automotive, oil and gas operations, extraction of brine, trading and shipping, and pipeline activities.

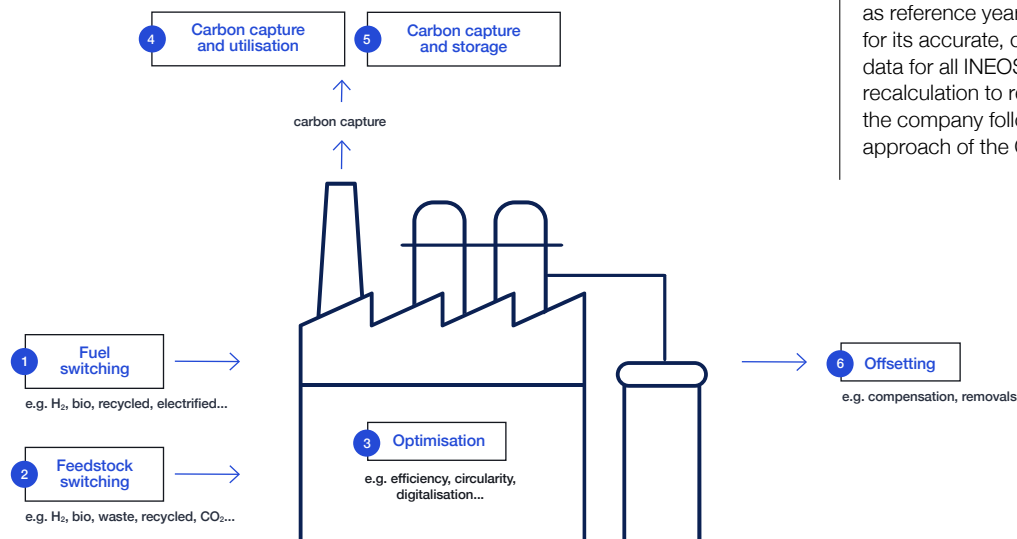
As part of our 2030 emission reduction strategy, we continuously investigate and implement measures to optimise the use of energy in our

operations and to substitute fossil fuel sources. For instance, our businesses and sites are switching to cleaner energy sources by co-firing hydrogen, using biogas to replace natural gas, and procuring green power through power purchase agreements (PPAs).



## 2.1.4 Our roadmaps and targets

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



In 2020, INEOS implemented a 2030 roadmap protocol that distinguishes six emission reduction pathways as detailed in INEOS' 2021 sustainability report. Our 2030 roadmaps focus on the five active abatement options, leaving the sixth (offsetting) for neutralising unabated emissions to reach net zero closer to 2050.

The protocol has helped INEOS sites draw up dynamic, realistic 2030 roadmaps, using 2019 as reference year. This baseline is recognised for its accurate, complete, and consistent data for all INEOS sites, and is subject to recalculation to reflect structural changes in the company following the all-year/same-year approach of the GHG Protocol.

Reduction options in each of the five active abatement pathways are assessed and arranged into realistic roadmaps for each site, based on economic and technical feasibility. Each site roadmap is signed off at business board level and submitted to INEOS group. As well as aggregating the reduction measures per pathway, organic growth or contraction is reflected as an increase or decrease in emissions in line with the GHG Protocol, where new builds are included with their estimated GHG emissions impact.

Following this bottom-up approach that builds on detailed input from all sites, INEOS has set a Group-wide target to reduce scope 1 and 2 emissions by 33% by 2030. Transitioning to low-carbon energy is expected to reduce emissions by 24%, optimisation is expected to reduce emissions by 10%, and expanding carbon capture is expected to reduce emissions by 3%. Switching to alternative feedstock will not bring large reductions in scope 1 and 2 emissions but will make a significant contribution to reducing product carbon footprints and scope 3 emissions, in the future. On the other hand, business growth including new builds is expected to increase the emissions by 5%.





## ENVIRONMENT

## 2.1.4.1 Clean energy

## The potential of hydrogen in the economy

Europe has proposed scaling up renewable hydrogen production to 10 million tonnes by 2030, and other major regions such as North America and Asia have similarly ambitious plans to expand green hydrogen production to reduce emissions. INEOS is well positioned to take a leading role in the emerging green hydrogen as it is currently Europe's largest operator of electrolysis through its INOVYN business.

INEOS launched a new hydrogen business to develop and build green hydrogen capacity across Europe in November 2020 and has plans to invest €2 billion in electrolysis projects across Europe, starting with projects in Norway, Germany, and Belgium, and looking to invest further in the UK and France. Further information can be found on our website: [\(INEOS Hydrogen - Fuel of the Future\)](#).

## Developing clean hydrogen as a fuel

Hydrogen has been used for a long time in the chemical industry as feedstock in the manufacture of products such as fertilisers. There is also growing interest in hydrogen as a zero-carbon energy source in the chemical industry and wider economy, for example in transportation.

Each year INEOS produces more than 400'000 tonnes of hydrogen through its chlor-alkali, refining and cracking operations. This is enough to fuel 300 million miles of heavy goods vehicle travel: the equivalent of 12'000 trucks circumnavigating the world. Hydrogen is essential for our transition to net zero by 2050 and can contribute significantly to our 2030 reduction target.

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 should be produced in a low-carbon manner, such as electrolysis with renewables, or through steam methane reforming (SMR) with carbon capture and storage (CCS).

In addition to being Europe's largest operator of electrolysis technology INEOS also owns hydrogen storage infrastructure. The two combined can help buffer the intermittency of renewable energy. As a producer and user of hydrogen, we are in a unique position to use our existing co-produced hydrogen to kickstart the hydrogen economy for INEOS, Europe and the wider world.





## ENVIRONMENT

## INEOS signs three renewable power deals reducing CO<sub>2</sub> emissions by nearly 3'000'000 tonnes



## INEOS | CASE STUDY

In September 2020, INEOS concluded the largest ever purchase contract of wind energy for heavy industry in Belgium. The 10-year agreement with energy producer ENGIE, for the purchase of renewable electricity will avoid 1'150'000 tonnes of CO<sub>2</sub> emissions and give a significant boost to the further development of capital-intensive offshore wind. Renewable energy will be supplied to INEOS from the Norther offshore windfarm in the North Sea from 1st January 2021. The long-term 84 MW commitment will initially be used by existing INEOS production sites and later by Project ONE.

Signed in December 2020, the second ten-year PPA has been agreed with RWE in Belgium. INEOS will purchase 56-Megawatt (198 GWh per annum) of off-shore wind power from RWE Supply & Trading, produced at the Northwester2 wind park in the Belgian North Sea. This significant deal will take around 25% of Northwester2's renewable electricity. It will reduce the carbon footprint of INEOS in Belgium by a further 745'000 tonnes of CO<sub>2</sub> over the length of the contract, which is the equivalent of taking 65'000 cars off the road each year.

The third ten-year PPA was signed in January 2022 with Eneco. INEOS will purchase 65.5-Megawatt (250 GWh per annum) of off-shore wind power from Eneco, produced at the SeaMade offshore wind park in the Belgian North Sea.

This significant deal will take around 13.5% of SeaMade's renewable electricity. It will reduce the carbon footprint of INEOS by a further 940'000 tonnes of CO<sub>2</sub> over the length of the contract, which is the equivalent of taking 70'000 cars off the road each year.

### SEPT 2020



Large industrial wind power purchase contract with ENGIE | INEOS Group

### DEC 2020



INEOS signs renewable power deal with RWE to reduce CO<sub>2</sub> emissions from its Belgian sites by a further 745'000 tonnes

### JAN 2022



INEOS signs renewable power deal with Eneco



“This agreement is an important step for INEOS in reducing emissions from energy consumption in Belgium.

Project ONE will be the most energy efficient chemical complex of its kind in Europe, using the newest technologies.”

— John McNally,  
CEO INEOS Project ONE



## ENVIRONMENT

## 2.1.4.2 Continuous process optimisation

**Continuous improvement in efficiency and reduction of energy use and carbon emissions is standard practice across INEOS.**

Sites implement energy management systems such as ISO 50001, participate in energy management schemes such as EMAS in Europe, ESOS in the UK, and EBO in Flanders, and have regular energy audits in compliance with our INEOS Group Guidance Notes. This helps meet climate targets, reduce energy use, and make our business more sustainable and competitive.

Optimisation projects vary widely, from finding new ways of improving process efficiency to innovative solutions for heat or power integration, including waste heat valorisation and more selective catalysts for processes. For instance, we have projects in the following areas:

**Optimisation measures**

Efficiency of power plants, e.g. At our Grangemouth site

Optimisation of steam networks at all sites with significant steam consumption

Integration of new technologies, e.g. mechanical vapour recompression at our Tavaux site

Electrification of low-temperature processes, as planned in Antwerp

Minimisation of waste heat from processes

Recovery and reuse of off-gasses in utilities, e.g. At Chocolate Bayou

Reduction of flaring, as planned in Lavera

Cooling tower optimisation e.g. In Cologne

Advanced process control, e.g. Distillation columns at our Sarnia site in Canada

Catalyst improvements.

Each INEOS site is measured against the previous year and the 2019 baseline, compared with other manufacturing sites in the business, and benchmarked for its profile in a region or country. At a higher level, emissions and energy data are ranked per INEOS business, highlighting potential areas of improvement and measures to replicate across the Group.

INEOS' carbon and energy footprint for each business is reviewed regularly by the board. Progress against site 2030 roadmaps is part of the sustainability reporting at each business executive committee meeting.

**Energy Audit Preparation & On Site Workshops****ENERGY  
AUDIT TEAM**

Group Energy Manager

Lead Auditor

Second Auditor

Site To Be Audited

**INTERNAL RESOURCES &  
KNOWLEDGE MANAGEMENT**

Energy Audit Approach  
Checklist  
Pan-INEOS evaluations  
Energy efficiency projects

International Expertise:  
Business experts  
Process & energy system experts



## ENVIRONMENT

## 2.1.4.3 Carbon capture and/or storage

**Although it is INEOS' primary goal is to cut emissions at source, we recognise that CCUS will play an important role in mitigating GHG emissions in the short run, either through utilisation or storage. In fact, several INEOS sites have been capturing emissions for a long time.**

Over the past two decades, INEOS has been capturing GHG emissions at plants in Antwerp (Belgium), Tavaux and Lavera (France), and Cologne (Germany), removing over 300'000 tonnes of CO<sub>2</sub> per annum – equivalent to the annual emissions from around 30'000 cars. We are also leading the Greensand consortium that is undertaking a pilot project in Denmark.

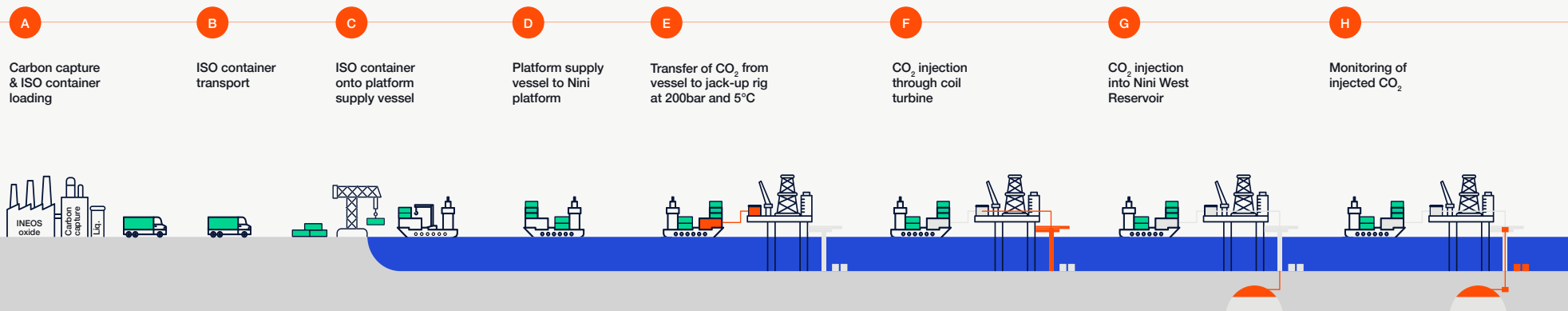
Project Greensand aims to develop and demonstrate that CO<sub>2</sub> can be stored underground in the Danish part of the North Sea. This will take place in the INEOS operated Siri field, located more than 200 kilometres west of the Danish coast. In the short term, the project will store up to 1.5 million tonnes of CO<sub>2</sub> per year in 2025. By 2030, Project Greensand aims to store up to 8 million tonnes of CO<sub>2</sub> per year.

Our ultimate goal is to capture carbon dioxide and derive value from it. We are also working with partners in the port of Antwerp to build a demonstration plant to make clean fuel from captured CO<sub>2</sub> 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.

INEOS is also part of the Antwerp@C project in Belgium; in Scotland INEOS is a partner in the Acorn project; and in 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.

## INEOS Greensand CSS project







## ENVIRONMENT

## INEOS is testing carbon capture and storage along the supply chain



## INEOS | CASE STUDY

INEOS is inching ever closer to proving to the world that CO<sub>2</sub> can be safely captured and permanently stored under the seabed. In January, a trial is to be carried out as part of the pilot phase which will see CO<sub>2</sub> shipped 500km from INEOS Oxide's plant in Antwerp, where they have been capturing waste CO<sub>2</sub> for the past 10 years, to the company's Nini offshore oil platform in Denmark.

Once there, it will be injected in liquid form via an existing well into a discontinued reservoir more than a mile below the seabed. If it works – and the team behind it believe it will – it will be a first for Europe. It will also be a game-change because carbon capture and storage will be an important part of decarbonising the world's energy and play a major role in the fight against climate change.

Drilled core material from the reservoir was used to test if the CO<sub>2</sub> could be safely stored in the minute pores that are in the rock – and the results were positive. Those tests have paved the way for the trial later this year.

Project Greensand, as it is known due to the type of sandstone under the seabed, is the first full value chain exercise, capturing CO<sub>2</sub> from industrial plants, liquefying it, and shipping it out to sea before injecting it into empty oil wells. And it is being done purely to protect the environment.

INEOS' long-term goal is to build a fleet of ships and CO<sub>2</sub> storage facilities on land and a terminal so that the ships can dock, load the CO<sub>2</sub> into containers and then sail out to the rig.



“Denmark has one of the most ambitious climate targets in the world and sees carbon capture storage as one of the steps needed to reach its goals.

This project will contribute significantly to Denmark's carbon reduction targets. We anticipate Greensand to be competitive commercially once a commercial market for CO<sub>2</sub> is up and running”.

— David Bucknall,  
CEO INEOS Energy



Consortium members agree to back Greensand, carbon storage pilot project, in support of Denmark's ambitious 70% CO<sub>2</sub> reduction targets by 2030 ([ineos.com](https://www.ineos.com))



## ENVIRONMENT

#### 2.1.4.4 Alternative/sustainable feedstocks

Several INEOS businesses have started to substitute fossil-based raw materials with recycled and bio-based feedstocks at commercial scale.

For example, at our olefins plant in Cologne (Germany), biomass co-produced by the wood pulping industry has been successfully converted into bio-olefins. INEOS' commodity chemicals, such as phenol, acetone, styrene, and PVC, are also partly produced using bio-based feedstocks and are available on the market.

INEOS' bio-attributed products can be made with 100% substitution of bio-feedstock on a mass-balance basis and provide significant GHG savings in our value chain. It results in products which have a proven positive impact on the environment without sacrificing product performance.

Using alternative feedstocks can also have a positive impact on INEOS' emissions from its operations by reducing non-biogenic emissions released from chemical reactions or when process steps can be avoided by using more refined or recycled feedstocks. This is why the use of alternative feedstocks is included in our 2030 roadmaps, even if the impact of this pathway on scope 1 and scope 2 emissions is not significant.

The renewable feedstock sources are certified by the RSB and ISCC Plus to assess that they are managed in accordance with their sustainability criteria.





## ENVIRONMENT

### 2.1.5 Emission reductions in the value chain

**To support our product carbon footprint approach (2.1.2.2), INEOS has initiated several supply chain emission reduction actions across the Group and in our businesses.**

#### Value chain emission reduction actions

We have a company-wide Supplier Code of Conduct in place, which is monitored through our supplier questionnaire. We also work with our suppliers to obtain footprint data and purchase sustainable feedstock.

We are developing an INEOS science base to account for product GHG emissions and mass balance allocation of alternative feedstocks and inform the development of a Group-wide product carbon footprint reduction plan.

We offer our customers the opportunity to offset residual emissions through offsetting credits, as done for [PTA<sub>ir</sub><sup>TM</sup>](#) Neutral.

Through our cross-INEOS networks, our procurement and business directors meet regularly. They develop strategies and share best practices to advance sustainability in our value chain. Topics include purchasing energy and green power (in particular PPAs), sourcing alternative/circular feedstocks (bio-based, recycled, hydrogen or CO<sub>2</sub>-based), developing sustainable products, and CSR ratings.

INEOS suppliers are required, through contractual arrangements, to be as efficient as possible when providing services on our behalf. This requirement, together with efficient transport planning, helps us maintain safe and sustainable procurement, improve carbon savings across our logistics, and drive down costs.

We also encourage customers to co-locate on our industrial sites or at interconnected locations, creating and operating chemical clusters. Examples are often found in port areas such as Antwerp (Belgium), Lavera (France), Rosignano (Italy), Rafnes (Norway), Grangemouth (UK) and Houston (US). Cologne (Germany) is a clear example of a chemical network, known as "Produktionsverbund". This approach aims to close material and energy loops, valorises waste and by-products, either through direct supply or delivery of product via pipeline, otherwise known as industrial symbiosis.

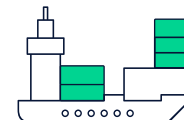
INEOS also pursues urban-industrial or cross-sectorial symbiosis at several sites, working hand in hand with nearby cities or communities, such as in Gladbeck or Antwerp, and with industries from other sectors, such as steel or cement. These INEOS clusters actively reduce emissions and energy in the supply chain and contribute to the circular economy flagship initiative called 'hubs for circularity', which is a key pillar in Europe's roadmap towards achieving the circular and climate objectives in the Green Deal.

Our next preference to co-location or pipeline transport is to use a ship or barge, then rail and, finally, road. In all stages of transport and distribution, INEOS monitors the carbon footprint of its activities. As part of ongoing work with our service providers, we require training for drivers on safe and fuel-efficient driving.

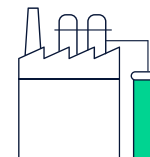
**The main elements of our supply chain are:**

1

Responsible procurement of our raw materials



Energy and resource efficient production of our products



2

3

Safe and reliable transportation of our products to our customers







## ENVIRONMENT

## 2.1.6 Climate risks and opportunities

**The Financial Stability Board (FSB) established the Task Force on Climate-related Financial Disclosures (TCFD) in 2015 from the recognition that there are economic risks and opportunities inherent to climate change.**

INEOS acknowledges the need for consistent, comparable, clear, and reliable corporate disclosure of climate-related information. INEOS has identified the following key climate-related risks and opportunities, which are discussed in greater detail in our CDP disclosure.



### Climate-related risks

**Current and emerging regulation: emissions reduction and energy efficiency**

Regulations concerning emissions reduction and energy efficiency, such as the EU-ETS and EU-EED, directly affect INEOS as large, energy-intensive company with significant emissions. Regulation in this area is expanding and being upgraded to deliver more ambitious emissions reduction targets. For instance, the EU is currently reforming its ETS to help deliver its upgraded 2030 climate target.

**Technology: emissions reduction technology**

Technologies that reduce emissions can give energy-intensive companies a critical commercial advantage by improving resource efficiency, providing access to lower cost materials, and reducing emissions costs. INEOS must stay ahead of technological developments to protect its competitiveness.

**Market: demand for sustainable solutions**

Driven by end-consumer demand, INEOS' customers are moving away from products and fuels made from fossil resources in favour of products with a lower footprint made from sustainable materials. To maintain market share, INEOS must follow changes in customer and consumer behaviour and monitor risks related to market trends.

**Reputation: delivering on commitments**

INEOS has a significant carbon footprint and is a large, high-profile company that faces scrutiny from a wide range of stakeholders. INEOS discloses its GHG emissions and has ambitious public emissions targets. The company would face reputational damage if it did not deliver on its commitments.

**Acute Physical: extreme weather events**

INEOS operates sites across the world and in several locations, we face risks of extreme weather events. Risks related to such events must be managed to minimise disruptions to operations and ensure safety.

**Chronic physical: long-term extreme conditions**

In addition to acute physical risks, chronic physical risks, such as rising global average temperatures and general water scarcity also present a risk for INEOS. These can lead to increased operating costs, loss of revenue, and increased capital costs.

### Climate-related opportunities

**Product and services: hydrogen business**

INEOS launched a new business to develop and build green hydrogen capacity across Europe in November 2020 and has plans to invest €2 billion in electrolysis projects across Europe, starting with projects in Norway, Germany, and Belgium, and looking to invest further in the UK and France.

**Energy sources: power purchase agreements**

INEOS has completed two major PPAs in 2021 with offshore Belgian windfarms (ENGIE and RWE) to purchase 135 MW of renewable electricity in total over ten years, reducing our exposure to volatile market prices.

**Product and services: Project Greensand carbon capture and storage**

INEOS is leading the Greensand consortium, with support from the Danish government, which will store CO<sub>2</sub> captured from industrial sites in the INEOS operated Siri Field in the Danish North Sea.



## ENVIRONMENT

## 2.2 Circular economy: maximising resource efficiency and eliminating waste

Resource conservation, waste reduction, and water sustainability are major societal and political challenges that demand a response from industry. Across INEOS our chemical sites aim to reduce material intake and use recycled or renewable materials as feedstock to cut waste and pollution.

We contribute to the transition to a bio-based and circular economy by investing in bio-attributed and circular products that save resources, reduce greenhouse gas emissions, and create opportunities for our customers and businesses to meet consumer demands and enter new markets. We also work to improve the recyclability of our products, so they can be recovered and reused, or recycled to the maximum extent possible, reducing landfill, incineration, and lowering the demand for fossil-based raw materials.

This is a particular priority for our businesses that make products that reach end-consumers, such as polyethylene, polypropylene, polystyrene, and PVC. The move to a circular economy will maximise the valuable contribution that such plastics make to society, while minimising their environmental impact.

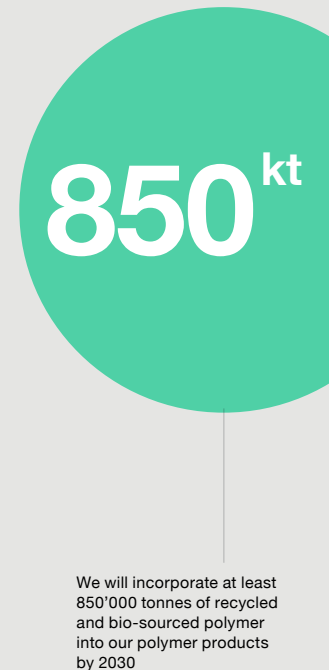
As we are well on track to meet and exceed the INEOS 2025 pledge, we have set additional targets for 2030: INEOS will incorporate at least 850'000 tonnes of recycled and bio-sourced polymer into its polymer products by 2030.

## The INEOS pledge

### 2025 pledge



### 2030 pledge





## 2.2.1 Water

**Water shortage affects every continent we operate in, so we have a duty to use water responsibly for the good of society and the natural environment. INEOS is committed to using water sustainably and recognises the human right to water and sanitation. We strive to protect water as a scarce resource, reduce emissions to water, and continually improve the water efficiency of our sites.**

We consider it a priority to discharge wastewater in full compliance with local regulations and to avoid groundwater contamination. We have a company-wide system in place to monitor water withdrawals and discharges, and many of our sites have environmental management systems in place in line with ISO 14001. We identify and implement opportunities to improve sustainable water management, such as the recycling of process water. This helps to protect the natural environment and secure the safety, health, and wellbeing of our employees and people who live and work close to our sites.

### Monitoring and tracking our water footprint

We monitor water withdrawal and discharge at all our manufacturing sites. Each site has a system in place to track water use throughout the year and to report its annual water intake and output as part of INEOS Group's environmental data collection using a tailored software platform.

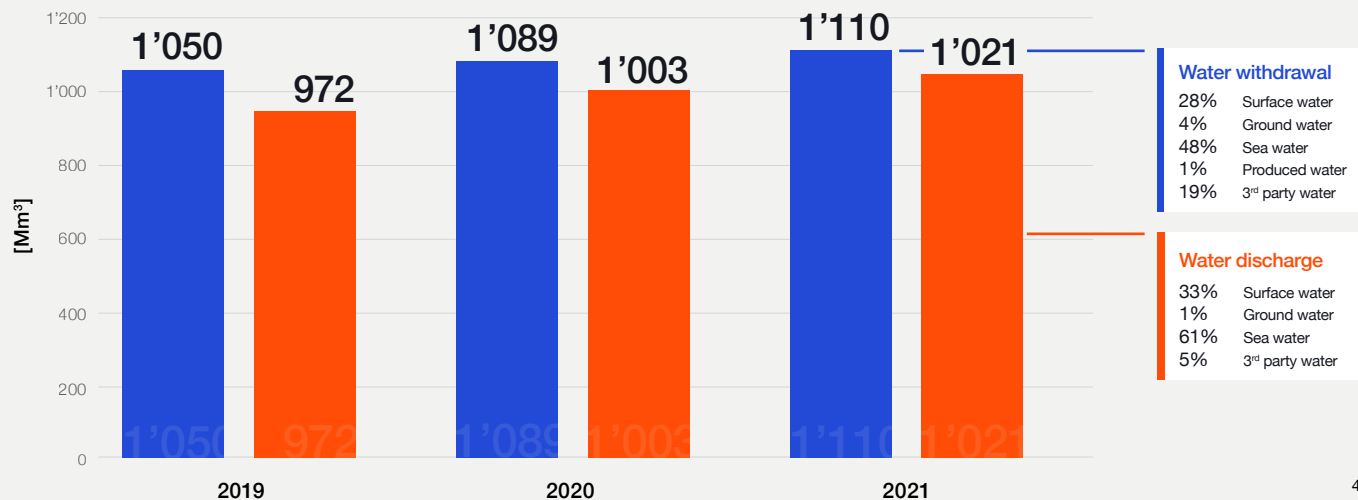
Site water balances are consolidated by business and at group level, the latter is publicly reported in this report on an annual basis.

Water is withdrawn from five source categories: surface water, groundwater, sea water, produced water and third-party water. Surface water, groundwater or water supplied by a third party

are classed as fresh water. Fresh water is essential for many of our manufacturing sites because our processes require high-quality water. In 2021, around 51% of INEOS' water withdrawal came from fresh water sources. The availability and quality of these sources is of high importance for our operations.

Around 49% of the water we use is seawater or water produced onsite. This is generally not suitable to use as process water but is often used as cooling fluid in our operations.

**Water withdrawal and discharge across all businesses worldwide**







## ENVIRONMENT

## 2.2.1 Water

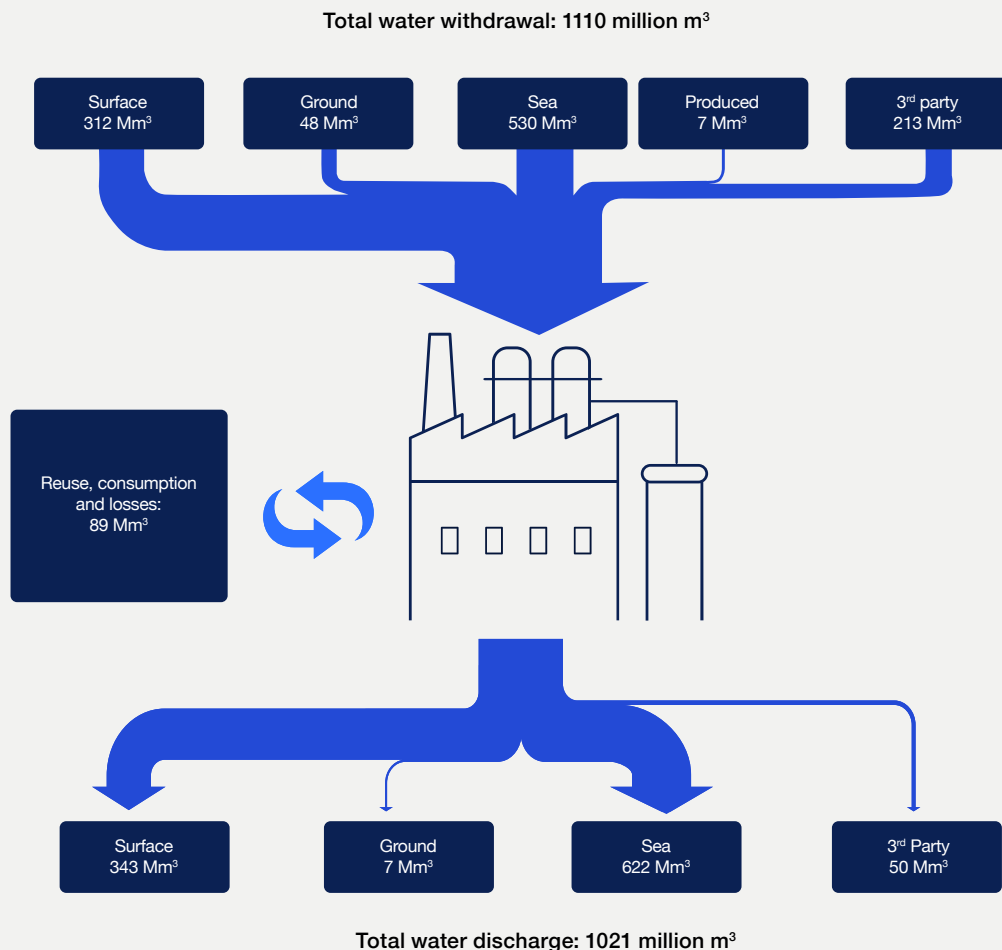
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By definition, process water comes into contact with our products. If not reused in the process or as solvent or cleaning fluid, it is sent to an onsite or offsite wastewater treatment facility. Cooling water runs in a separate system. It does not come into contact with the products and therefore is not contaminated. Regardless of regional differences, the use of process and cooling water is strictly monitored by quantity and quality and is compliant with local standards.

As with waste, our water discharge is monitored by destination at all manufacturing sites. We differentiate between four destination categories: surface water, groundwater, sea water and third-party water. According to the site permit and local regulations, the water output quality is measured using many effluent parameters such as temperature, pH value, oxygen demand, total suspended solids, as well as nitrogen, phosphor, and sulphur concentration.

This will also include other site-specific substances of concern as required. Water discharge is heavily regulated, and requirements become stricter as policymakers address chemicals in the environment and global water scarcity.

INEOS' water footprint for 2021 is summarised here, based on a full response rate including jointly controlled sites (JVs and JOs) based on INEOS' shareholding.





## ENVIRONMENT

## 2.2.1 Water

(continued.)

**In 2021, our withdrawal and discharge of water amounted to 1'110 Mm<sup>3</sup> and 1'021 Mm<sup>3</sup>, respectively, implying that 89 Mm<sup>3</sup> of water was reused, consumed, or lost.**

Both withdrawal and discharge showed a slight increase compared to 2020 of approximately 2% each, while production across INEOS increased by 6%. Surface and sea water accounted for 28% and 48% of our withdrawals, respectively.

### Water management

We closely monitor data from all INEOS manufacturing sites to manage our water balance and optimise our water strategy. The water consumption per site is calculated as the difference between withdrawal and discharge. The balance is shared with each INEOS business for appropriate water planning and actions.

The report also includes the results of water stress screening performed for each manufacturing site, following GRI standards. Using the Water Risk Atlas provided by WRI (Aqueduct 3.0, 2019), we have identified that 22 sites (16% of our 134 manufacturing sites in 2021) are located in an area subject to water stress, accounting for approximately 2% of our total water withdrawals and discharges as well as 6% of our total water consumption.

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.

### Water reduction

Reducing INEOS' water consumption across the Group is one of our ambitions put into practice at each manufacturing site. It is also an essential element in the design and retrofit of our plants.

#### For example:

Our new cracker to be built in Antwerp (Belgium) is designed to use demineralised water in the cooling circuits instead of city water and to reuse rainwater, which will considerably reduce water consumption.

Across INEOS, focusing on identified water stress areas, our manufacturing sites are invited to share current and future plans to reduce, reuse or replace fresh water.

Other water reduction examples include the reduction of cooling water by optimising an osmosis plant (Rosignano, Italy) and substituting water jets (Marl, Germany).





## ENVIRONMENT

## 2.2.1 Water

(continued.)



## Wastewater reuse and treatment

To reduce our water footprint INEOS practises responsible water care. One of the most efficient ways of doing so is by reusing process water. Due to the nature of chemical processes, wastewater is nearly always contaminated, which is why INEOS sites are optimised to reuse wastewater streams until no further use is possible.

Remaining contaminated water is regularly treated in onsite facilities using appropriate technologies, such as biological wastewater treatment, in line with site permits.

Sludge from wastewater treatment is minimised at INEOS sites, reducing the volume for further processing. If not treated onsite, contaminated wastewater and sludge are sent for treatment off site.

## For example:

In Hull (UK) we purify process water in ethanol recovery and recycle it back into other processes.

In Gladbeck (Germany) caustic soda dilution is done using wastewater.

In Feluy (Belgium) we feed process purge water into the cooling towers.

In Rheinberg (Germany) we treat wastewater, to permitted specification, using own product derivatives before discharging back into the Rhine.

In Pasadena (USA), phenolic wastewater is used as nutrient feed for the biota in the onsite wastewater treatment plant, avoiding the need to dispose of it as hazardous waste.

Our Merak site (Indonesia) is running a new anaerobic reactor to treat the wastewater prior to discharge.

At our Green Lake site (US) a new biochemical tank has been constructed to reduce sludge waste prior to disposal.

All INEOS sites in the Port of Antwerp-Bruges participate in a study to maximise the sustainable and circular use of industrial water.

This strategic exploration aims at guaranteeing the operational continuity of the industry in the port, while also introducing water management in the wider Antwerp area. The exercise is being developed to roll out across all INEOS sites worldwide.

## 2.2.2 Waste

**INEOS is committed to monitoring and reducing its waste footprint and safely managing its hazardous waste to protect the natural environment, meet compliance with national regulations, and conserve resources.**

As a partner in the transition to a circular economy, INEOS plays its role in optimising resources and eliminating waste where possible.

We have set targets to incorporate recycled content into our plastics and ensure all our plastic products are recyclable. We are investing in advanced recycling technologies to reuse or repurpose waste that is not suitable for mechanical recycling, and we take part in end-of-life reprocessing initiatives in our wider value chains.

Across INEOS we seek to optimise resource efficiency and minimise waste at our sites by following the principles of the waste hierarchy: reduce, reuse, recycle, recover. In 2021, 22% of all waste generated at INEOS' sites was recycled or reused, and another 22% was sent for energy recovery.

Our sites have environmental management systems in place in line with ISO 14001 to identify and implement opportunities to reduce material consumption and valorise waste and by-products.

# 4Rs

## Reduce

Lowering waste and energy produced

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 valorised by third parties.

## Reuse

Using materials repeatedly

Remaining waste that cannot be reused or recycled is shipped to specialist waste treatment facilities. Stringent procedures and safety checklists are standard at all sites.

## Recycle

Using materials to make new products

All personnel working with, handling, or transporting hazardous materials and waste are required to have proof of the appropriate specialist training.

## Recover

Recovering energy from waste





## ENVIRONMENT

## 2.2.2 Waste

(continued.)

## Monitoring and tracking our waste footprint

Waste management is already heavily regulated, and requirements will continue to get stricter as society moves to a circular economy. To inform our waste management strategy, we track our waste footprint on an annual basis, gathering data on the quantity, classification, and destination of waste according to the GRI 306 standard.

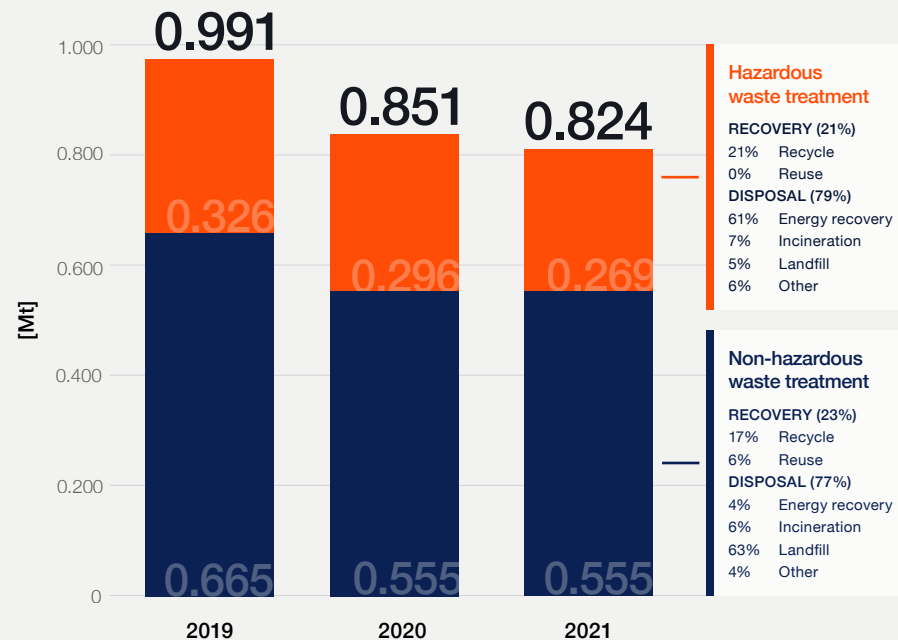
As part of INEOS' environmental reporting, waste is classified as hazardous or non-hazardous and tracked for circularity by destination. We seek to minimise waste generation in the first instance and recover waste where possible through reuse (without processing) and recycling (after treatment). We consider incineration (with or without energy valorisation) and landfilling to be a last resort. All our manufacturing sites monitor their waste production and handling, including treatment methods, operators, and whether waste is treated onsite or offsite. Across INEOS worldwide, waste is handled in full compliance with the local regulations. Each site has a system in place to track material output as part of INEOS' environmental data collection using a dedicated software platform.

Site waste data are consolidated per business and at group level, the latter being publicly reported in INEOS' annual sustainability report.

INEOS' waste footprint for 2021 is summarised here, based on a full response rate including jointly controlled sites (JVs and JOs) at their INEOS share.

In 2021, we generated a total of 824 kt of waste across our sites, 33% of which was classed as hazardous. In comparison to 2020, INEOS reduced its waste generation by about 3% in 2021, while production across INEOS increased by 6%. Changes at site and business level are mainly due to one-off events, turnarounds, maintenance, and construction projects.

## Waste generated across all business worldwide





## ENVIRONMENT

## 2.2.2 Waste

(continued.)

## Waste management

To be transparent and aligned with international reporting standards, we monitor various waste categories and aim to set targets for wider product groups. We strive to minimise the waste we produce, and where possible to reuse or recycle waste to the maximum extent possible.

We only send waste for incineration (with or without energy recovery), landfilling or other disposal route as a last resort. In 2021, we recovered 22% of our total waste output, while the remaining 78% was disposed of. Also in the same year, 48% of our total waste was treated on site while 52% was handled off site by third parties.

When waste is handled by a third party off site, we ensure that the service and contractors follow the applicable regulations, whether on waste, SHE, or labour, in compliance with our Supplier Code of Conduct through external audits as appropriate.

## Deriving value from waste and by-products

We identify and implement opportunities to valorise 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 a by-product to be recycled or reused as refuse derived fuel at INEOS Compounds,

Achieving almost 100% waste and energy recovery at INEOS Automotive, by strictly monitoring the loading and 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,

Implementing tools to facilitate industrial symbiosis e.g. at Hull (UK) as a result of the European Horizon 2020 project [EPOS](#).

## 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. the INFINIA pilot plant to recycle previously non-recyclable colours of PET,

Implementing robust waste handling systems established together with local waste handling companies at INEOS O&P North,

Separately collecting non-hazardous waste fractions at our sites and sending them for recycling at external parties.

Providing financial and management support via INOVYN to the VinylPlus® voluntary initiative that is designed to establish a long-term sustainability framework for the entire PVC value chain.





### 2.2.3 Circularity in the value chain

# Product innovation is at the heart of our business.

**Our objective is to take action now to create new products that advance the transition to a bio-based, circular, carbon-neutral economy.**

**INEOS has a strategy in place to reduce the use of fossil materials by recovering waste materials and switching to alternative feedstocks obtained from reused, recycled or renewable sources.**

#### **Mechanical recycling**

In mechanical recycling, plastic waste is physically sorted, shredded, cleaned, and processed into smaller pieces without changing the basic structure of the material. This is then reprocessed back into products and 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 are newly developed high-performance products that match the performance of virgin materials.

We have, for instance, developed new Recycl-IN polyolefin products containing up to 70% recycled polymer for a wide range of applications. Our INOVYN business has also fostered the VinylPlus industry recycling initiative that has 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.



## ENVIRONMENT

## 2.2.3.1 Plastics recycling

## Advanced recycling

In advanced recycling, we distinguish between dissolution technology, depolymerisation, pyrolysis and gasification.

## 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 polystyrene back to styrene, then repolymerising it to make products identical to 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. This oil is further purified and processed, then used as feedstock in steam crackers to produce the building blocks (ethylene, propylene, butadiene, benzene) necessary for polymer and chemical 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 Cologne, Germany. The process and resulting products have been certified by the ISCC, an independent accreditation body.

Also in 2021, INEOS O&P US received ISCC PLUS certification across many of its sites including three sites in Texas and California following the successful commercial scale trials of advanced recycling production through pyrolysis.

## 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, it 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, and applications and process knowledge together for a common purpose.





## ENVIRONMENT

## INEOS and NEXTLOOPP work together to recycle polypropylene



INEOS | CASE STUDY

INEOS Olefins & Polymers have announced it has joined the NEXTLOOPP project, an exciting UK collaboration to create circular food-grade recycled polypropylene from Post-Consumer Recycled (PCR) packaging.

INEOS will be at the centre of an important two-year project that will inform the building of a demonstration plant in the UK to produce 10'000 tonnes per year of food-grade recycled polypropylene.

From its manufacturing base in Grangemouth, Scotland, and extensive product and technical expertise across its European operations, INEOS will help tailor food-grade recycled polypropylene to the precise specification of converters by blending it with virgin polypropylene to modify its mechanical and processing properties. It will also introduce processing aids to help converters to meet the exacting requirements of Brand Owners.



INEOS and NEXTLOOPP Work Together To Recycle Polypropylene



“Polypropylene is one of the most versatile plastics in the world – it is also missing from our recycling streams in food contact applications. In the UK alone we use over 210'000 tonnes of PP in our food packaging every year.

It is found in pots, tubs and trays. However, the absence of food-grade recycled polypropylene means that all PP food packaging is currently made from virgin plastics. This isn't unique to the UK but a large global issue that INEOS and its partners are determined to change.”

— Graham MacLennan,  
Polymer Business Manager INEOS O&P UK



## ENVIRONMENT

## INEOS O&P Europe joins the HolyGrail 2.0 initiative for recycling plastic waste

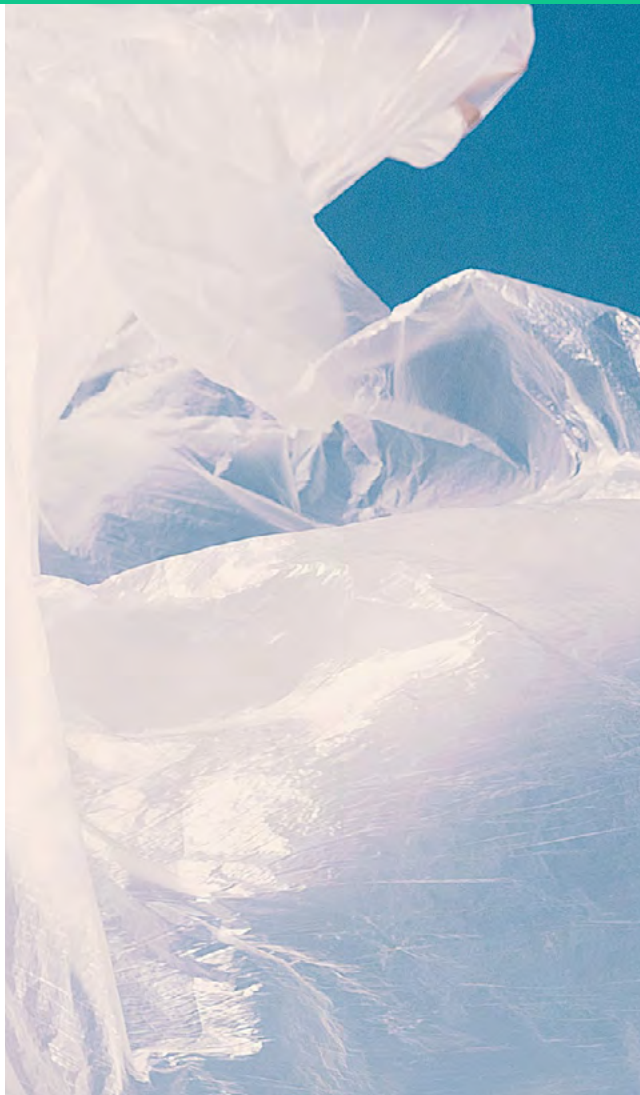


INEOS | CASE STUDY

The HolyGrail initiative aims to address and improve how plastic waste is sorted into different types, making the recycling of household plastic waste far more efficient. Although plastic packaging collection rates are improving across Europe, challenges in sorting mean that recycled plastics are often a mix of types and grades, making the recycled product difficult for plastics converters to re-use.

The Digital Watermarks Initiative HolyGrail 2.0 is pioneering a ground-breaking technology. Digital watermarks are imperceptible codes which cover the surface of the packaging. They are around the size of a postage stamp, imperceptible to the human eye, but detectable by special cameras linked to high-speed waste sorting systems.

The HolyGrail 2.0 initiative will provide the whole packaging value chain with a robust, cost-effective, and easily scalable system to optimise the sorting of post-consumer plastics packaging and improve the quality of the recycled product.



“Partnering with HolyGrail 2.0 demonstrates our commitment to taking action across the value chain, to create a more sustainable future. It fits perfectly with the INEOS goal to increase recycling rates and the use of recycled materials back into everyday products.

This is an exciting next step on our path to full packaging circularity.”

— Rob Ingram,  
CEO of INEOS Olefins and Polymers North



## ENVIRONMENT

### 2.2.3.2 Bio-based and circular products

#### INEOS' businesses have introduced bio-based feedstocks into a range of bio-attributed polymers and chemicals.

At all INEOS sites offering such products, each step in the supply chain has been fully certified by ISCC PLUS or RSB. In both cases the final product carries an attribution according to the displacement of fossil fuel-derived raw materials.

These sustainable products are introduced by our businesses into a range of polymers and chemicals, following the mass balance approach.

#### 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 production.

The carbon footprint of these bio-attributed materials can be up to 90% lower than conventionally made products. One of these products includes BIOVYN™, the world's first commercially available bio-attributed PVC, produced by INOVYN and certified by RSB.

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





## ENVIRONMENT

## INEOS launches new bio-attributed ethylene oxide



INEOS | CASE STUDY

INEOS completely substitutes fossil feedstock with renewable biomass in its latest bio-attributed ethylene oxide. This is based on certified, bio-based sources which do not compete with food production.

This new product reaffirms INEOS' commitment to developing more sustainable ways to produce the materials we use and rely on every day. INEOS Oxide is developing a suite of solutions to deliver carbon neutrality by 2050, of which this new product is one.

Both RSB and ISCC PLUS have certified that the new product is 100% renewable on a mass balance basis and delivers a greenhouse gas saving of over 100% compared to conventionally produced EO.

This allows INEOS customers to significantly reduce their carbon footprint and offer innovative solutions to serve their ever more demanding markets for sustainable solutions.



INEOS Launches new Bio-Attributed Ethylene Oxide, Completely Substitutes Fossil Feedstock With Renewable Biomass



“In developing our bio-attributed Ethylene Oxide, INEOS is once again leading the way in developing sustainable solutions for products essential to our everyday lives.”

— Tobias Hannemann,  
CEO of INEOS Oxide



### 2.2.3.3 Product innovation

**INEOS businesses are developing ways of recycling post-consumer plastics, reusing by-products, and incorporating renewable feedstocks.**

We understand that no single method is sufficient to meet the challenge of moving to a bio-based and circular economy, so we are developing several routes to reach our circularity targets. We invest in parallel in reuse, recycling and recovery technologies, each suited to a different fraction of the plastic and chemical waste which is collected and prepared for circularity throughout our value chain.

A major focus is to combine high performance with a lower carbon footprint, improved recyclability, and high recycled content. For example, we have developed new grades of ABS containing recycled material that still fulfil the stringent specifications our customers' high-performance applications.

INEOS has joined forces with other leading businesses and governments from across the world who want to transform today's take, make, dispose economy into one where chemicals, and plastics in particular, are designed to be used over and over again – and, in doing so, retain their value while avoiding the environmental impact of incineration or landfill.





## 2.3 Zero pollution: driving progress towards sustainable chemical value chains

**INEOS is committed  
to advancing towards  
sustainable chemical  
value chains with  
zero pollution.**



We require that our suppliers do the same through our Supplier Code of Conduct.

We have a company-wide REACH network in place to ensure excellence in product stewardship, meeting all regulatory requirements and identifying opportunities to substitute hazardous substances for more sustainable alternatives.

INEOS monitors its pollution through a company-wide data platform and is committed to complying with all regulations governing pollution and implementing measures across its sites to reduce environmental and social impacts of pollution.



## ENVIRONMENT

### 2.3.1 Avoiding pollution to air, water, and soil

#### Safe handling and containment of chemicals and products is of critical importance to INEOS.

Our processes, operating procedures and working practices are designed to secure containment of all products and raw materials.

The loss of containment of any materials is extremely rare, but any accidental emission of material is reported to the authorities according to the local regulations. To avoid or keep such risk to a minimum, we closely monitor all systems. We have internal reporting systems in place that trigger online reporting and full internal investigation when there is any loss of containment that is 10% of the reportable level. We call these LOC10s.

By sustained focus and continuous improvement, over the last eight years we have reduced the frequency of these minor losses.

INEOS sites monitor air emissions such as NOx, SOx, CO, volatile organic compounds (VOC) and dust and we operate in full compliance with local and national regulations governing air pollution. Our annual monitoring helps reduce the impact

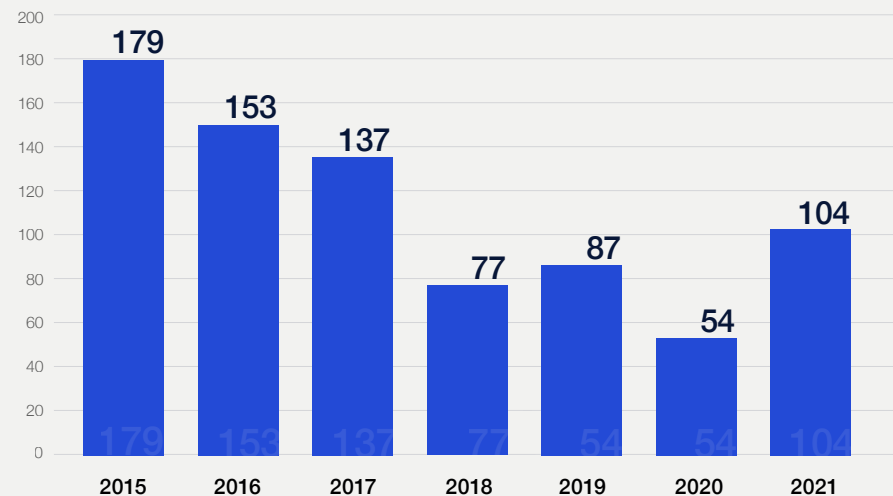
of our sites on air quality. INEOS' non-GHG air emissions in 2021 were as follows: 9.530 kt NOx, 2.421 kt SOx, 55.092 kt CO, 13.468 kt VOC, 0.745 kt dust, and 0.044 kt of ozone depleting substances (ODS) as defined under the Montreal Protocol.

INEOS takes steps to reduce air emissions by investing in systems such as low NOx burners, selective catalytic reduction and DeNOx treatment based on urea injection. Leak detection and quantification (LDAR) programs are also in place for detecting and eliminating fugitive emissions from equipment.

INEOS is a signatory of Operation Clean Sweep (OCS), a voluntary stewardship programme of the Plastics Industry Association and the American Chemistry Council. We apply this commitment to achieve zero pellet, flake, and powder loss across all our sites and value 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. We continuously improve our performance by installing pellet containment measures such as filters, water separators, extractors, air blowers, and rumble strips. We train employees, truck drivers, and hauliers and includes clauses in supply chain contracts to commit to the OCS principles.

### INEOS LOC10s across all businesses worldwide





## ENVIRONMENT

### 2.3.1 Avoiding pollution to air, water, and soil

(continued).

## The 6 commitments of Operation Clean Sweep® we endorse

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

Improving worksite set-up to prevent and address spills

2

Creating and publishing internal procedures to achieve zero industrial plastic material loss

3

Providing employee training and accountability for spill prevention, containment, clean-up, and disposal

4

Auditing performance regularly

5

Complying with all applicable state and local regulations governing industrial plastics containment

6

Encouraging partners (contractors, transporters, distributors, etc.) to pursue the same goals





## ENVIRONMENT

## “Car wash” combats loss of plastic pellets



INEOS | CASE STUDY

Trucks that want to leave the site in Lillo, Antwerp, after loading plastic pellets, first have to go through the so-called air-tunnel. This ‘dry car wash’ for trucks efficiently, safely and accurately blows away plastic pellets that have remained on the roof or chassis of the truck during loading. INEOS invested 700'000 euros in the covered blow-off line in order to prevent lost pellets from leaving the site and ending up in nature.

The installation of the blow-off street is the final piece in a series of measures that have already been applied on the site for some time to reduce the loss of pellets to zero.

Given the complex logistics chain, it is very important to make the different actors aware of the importance of prevention measures. Operation Clean Sweep, an initiative of the European plastics federation PlasticsEurope, unites sector companies and logistics partners to adopt a common approach in combating the loss of plastic pellets. INEOS has been a member from the very beginning since its launch in Belgium in 2017 and is paying close attention to sensitising its own employees and logistics partners to the programme at its production sites.



“Truck wash” combats loss of plastic pellets  
([ineos.com](https://www.ineos.com))





## ENVIRONMENT

### 2.3.1 Avoiding pollution to air, water, and soil

(continued).

In addition to the 6 commitments of OCS, we implement best practices to prevent pollution to water and soil.

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#### For example by:

Creating waste management programmes and minimisation plans at all INEOS sites

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Testing, sampling, and analysing waste via approved methods at our sites in the US

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Handling hazardous waste according to the REACH guidelines and classifying our waste in accordance with the local regulations, such as VLAREA in Flanders (Belgium)

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Monitoring and managing soil contamination following local regulations such as VLAREBO in Flanders (Belgium) and brownfield management rules in Germany.

In the unlikely event of leaks, we have procedures in place that specify direct actions. In case remediation is needed, it is organised according to the rules stipulated by the local authorities and INEOS' Group Guidance Notes.

To prevent groundwater contamination, we take action across our sites.

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#### For example by:

Defining the reference state of the groundwater in initial state reports, e.g. at our sites in Germany in line with the European Industrial Emissions directive, and assessing the current state of specific substances

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Performing groundwater monitoring at our US sites to detect any potential issue if a site has a permitted disposal facility

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Installing storage tanks and loading/unloading facilities in bunds

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Using impervious floors, kerbing and bunding

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Building process units on concrete with dedicated sewage facilities.





## ENVIRONMENT

### 2.3.2 Preventing pollution in the value chain

## INEOS is committed to advancing towards zero pollution in its value chains.

We consider it a priority to prevent chemical pollution downstream of our operations through effective product stewardship and sustainable product innovation.

We also expect all our partners to comply with relevant environmental laws, use resources responsibly, and minimise negative impacts relating to pollution. As outlined in our Supplier Code of Conduct, we require our suppliers to manage their emissions to air, water, and soil, and follow Responsible Care principles when managing chemicals.

Suppliers are also required to participate in the Operation Clean Sweep initiative if they handle plastic pellets.







## ENVIRONMENT

## 2.3.2.1 Compliance with REACH

**In line with its SHE culture, INEOS is committed to fulfilling REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) obligations, which 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.

Provision of safety data sheets (SDS) to customers according to regulatory requirements in each country we operate in. This means that, by law, our SDS are classified and labelled with reference to the Global Harmonised System (GHS).

An open access document management system to store and share all SDS, as well as ISO certificates, product specifications, and information on impurities or compliance with specific regulations. It includes an automatic distribution system linked with the internal SAP system. On all safety data sheets, emergency phone numbers are added.

Continual improvement of products to avoid potential problems before they become human or environmental hazards.

Hazard identification systems that take advantage of available information.

A risk-based process for identifying, understanding, and prioritising concerns and managing chemicals in commerce.

The extended safety data sheets include an exposure assessment per identified use of a substance, including a detailed assessment of the risk management measures required per handling activity linked to this use.

Risk reduction measures, including limitations on use or even phaseouts 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.

Ensuring the transparency of information flows throughout the value chain (e.g. suppliers, manufacturers, customers, waste companies), so that manufacturers and users can understand and manage risk and provide meaningful and relevant information to their respective stakeholders.

Publishing product information on hazard, exposure, and risk.

Assessing all suppliers are REACH compliant before we engage with them, as required by EU law. Our monitoring is ongoing outside of the EU in jurisdictions such as the UK and Korea.



INEOS has specific policies in place for transport safety and performs customer audits prior to delivery to ensure that customers have the facilities and know-how to receive and store our products safely. In addition, we have a free carrier (FCA) policy that is distributed to all customers, hauliers, and supply chain partners prior to the collection of products from our facilities, setting out their safety, health, and environmental requirements.

In addition to sharing knowledge within the INEOS REACH network, several businesses have subscribed to Chemical Watch. This is a platform that provides insights on regulatory and non-regulatory news from member companies around the world leading to the continual improvement of the safe use of chemicals, including risk assessment, policy, legislation, and voluntary initiatives.



## ENVIRONMENT

## 2.3.2.2 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 conducting business in a safe, ethical, and environmentally responsible manner.

INEOS 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 all customers to ensure they have the necessary information, procedures, and facilities to receive, store, and use products safely.





# People



## PEOPLE

## 2.4 Our people: prioritising workplace health and safety (SHE) and fairness

**As of the end of 2021, INEOS had almost 25'000 permanent employees worldwide, including full-time equivalents in our joint arrangements and sports and fashion businesses. 70% of this workforce was based in Europe, 22% in America, and 8% in Asia.**

A demographic breakdown of our workforce and information on new hires and staff turnover in the reporting period can be found in table 14 in the annex.

We are committed to ensuring our people are valued and human rights are respected throughout our operations. In particular, the health and safety of employees, contractors, and visitors to our sites is our highest priority, given the nature of our processes. It is also of great importance to us to maintain a working environment of mutual trust where all employees are treated with respect, compensated fairly based on local market conditions, and entitled to reasonable working hours.

All INEOS businesses and employees are required to follow our Code of Conduct, which governs how we manage health and safety, workers'

rights, equal opportunity in the workplace, working conditions, career management, training, harassment, and personal conduct. Our Group-wide management of health and safety is also governed by our dedicated SHEQ policy, 7 Life Saving Rules, 20 Principles of behavioural and process safety, and INEOS Group Guidance Notes (IGGNs).

As stated in our Code of Conduct, INEOS respects the rights in the International Bill of Human Rights and the International Labour Organization Declaration on Fundamental Principles and Rights at Work. We recognise employees' right to collective bargaining and freedom of association, and we work to prevent any instances of forced or compulsory labour, child labour, or employment discrimination throughout our operations. All our businesses and employees must uphold these standards and report suspected violations as a priority.

In every country in which we operate, we abide by local, regional, and national laws regarding human rights. All our employees have the right to join labour unions, works councils, participate in collective bargaining or equivalent initiatives. On average, around 60% of INEOS employees worldwide are covered by a formal collective labour or bargaining agreement (CLA/CBA), and over three quarters of our employees in Europe.

INEOS' European sites participate in European Works Council (EWC) meetings twice a year and produce an annual report for their EWC. Committees and CLAs/CBAs are in place

addressing employee and contractor health and safety, wages and working benefits, working conditions, recruitment, training and development, diversity, and equality, and more. In addition to works councils, some sites use union delegations, formal or informal team meetings, and safety committees to communicate with employees.

Employees that are not covered by CLAs/CBAs, are covered by local employment laws to determine working conditions. Our sites also put in place employee forums to ensure these employees can raise concerns.

As of the end of 2021, INEOS had almost 25'000 permanent employees worldwide

25'000



## PEOPLE

### 2.4.1 Health and safety: ensuring the safety of our people



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

The health and safety of employees, contractors, and site visitors is the highest priority for INEOS. Collectively and individually, we are committed to maintaining the highest standards of health and safety.

We meet or exceed regulatory requirements and do not compromise our standards for commercial benefit or any other reason. Although our safety record already ranks among the best in the industry, we believe there is always room for improvement.

Our goal is  
**zero**  
injuries and  
product spills.





## PEOPLE

### 2.4.1.1 INEOS' health and safety management system

**INEOS has company-wide policies in place governing our health and safety management, namely our Code of Conduct, SHEQ policy, 7 Life Saving Rules, 20 Principles of behavioural and process safety, and INEOS Group Guidance Notes.**

These policies are given authority and implemented through our federal structure, where each INEOS business is responsible for its own performance and must report to INEOS' shareholders.

The CEO of each INEOS business is responsible for the health and safety performance of their business, which is reviewed monthly by the executive board of the business. Each business then reports on its health and safety performance directly to the shareholders of INEOS at business Executive Committee (Exco) meetings every two months.

These data are also presented directly in quarterly functional Exco meetings. In addition, the board of each business must submit a signed letter of assurance to INEOS' shareholders every year confirming that their business is operating in accordance with INEOS' company-wide operational and financial standards.

The Operations Director and CFO of the business must review the health and safety performance of all sites under their responsibility prior to issuing this letter of assurance by the end of Q1.

1

We believe that excellence in health and safety 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.

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.





## PEOPLE

## 2.4.1.1 INEOS' health and safety management system

## The INEOS 20 Principles

To make our approach clear, we have summarised our safety philosophy into what we call the INEOS 20 Principles, each one consisting of a list of sub-principles (e.g. on mandatory PPE requirements and SHE improvement programmes).

This company-wide management system addresses the safety of both people and plant operations. The safety principles apply to all employees as well as all contractors. These are published 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 investigated
- 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



## PEOPLE

### 2.4.1.1 INEOS' health and safety management system

**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.**

#### Life saving rules

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

These principles are supplemented by our Life Saving Rules, set out in one of the INEOS Group Guidance Notes (IGGNs). These are mandatory rules that must never be broken. These seven simple but crucial lifesaving 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, whether they are an employee or a third-party worker.

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

Across all our sites, we also 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. Implementation of the IGGN is designed to remove/manage the risk. All elements of the IGGN must be formally reviewed by each business, site & facility within INEOS, to assess gaps from the described best practice. Full implementation will achieve the desired best practice and INEOS expects businesses, sites and facilities to continually evolve their procedures, practices and training towards this.

To protect our own employees, INEOS sites also perform noise assessments and draw sound maps at plant level to decide on personal protective equipment such as earplugs or ear-defenders in certain plant areas.

Mandatory health checks for our employees are organised per business and/or site and comply with local legislation. For example, some of our Belgian sites use Attentia for employee health checks, an external service for prevention and protection at work. The check-ups are conducted on site based on a risk matrix and offsite medical screening is offered to employees over 45 years old. Other sites, such as Herne and Moers in Germany, have a physician available on site approximately one day a week. They perform health checks related to job exposure or function, covering all site employees.



## PEOPLE

#### 2.4.1.2 INEOS' health and safety performance

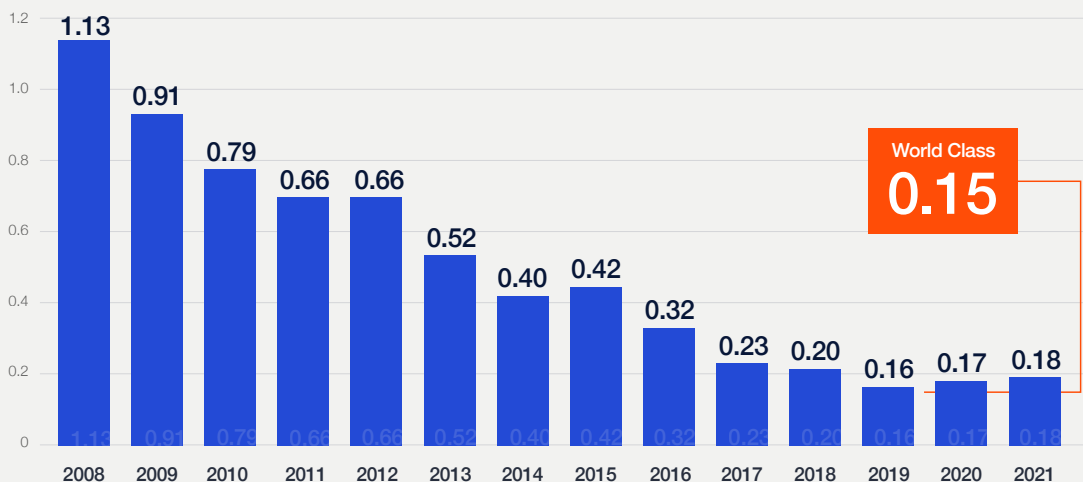
Over the past decade, the INEOS approach to safety has resulted in a fivefold decrease in the injury rate among employees and contractors. When it comes to safety, health, and environment, we treat employees and contractors alike, which is why we report on their combined performance when working on our sites.

In 2021, zero fatalities were reported across all INEOS sites and our OSHA (Occupational Safety and Health Administration) recordable injury rate of 0.18 injuries per 200'000 hours worked (for employees and contractors combined) was 'best in class' in our industry. In comparison to 2020, the 2021 measure includes the newly acquired Aromatics and Acetyls business from BP, as well as the expansion of WL plastics.

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.

### INEOS safety performance

OSHA recordable rate per 200'000 hours employees + contractors







## PEOPLE

### 2.4.1.3 Health and wellbeing

#### We support and encourage a healthy lifestyle for our employees.

INEOS is committed to supporting employees' physical health and mental wellbeing and promoting work-life balance. Some of our businesses and sites conduct surveys and annual reviews to determine the satisfaction of our employees in this important area.

We have equipped many of our main manufacturing sites and offices with gyms. Most of these are on site but, where this is not possible, we subsidise access to local gyms close to our facilities. Employees are free to use the gym to follow their own fitness programmes or sign up to classes at their location. During the COVID pandemic many classes were given online and made available to all INEOS employees and families worldwide.

INEOS Energy Station is an online health and wellbeing platform for all INEOS employees and their friends and family to follow fitness, health, and lifestyle tips, and share experiences. Through the platform, INEOS employees can book classes at any of the INEOS gyms and to sign up to companywide events and challenges. The platform is open to all and was particularly valuable for engaging employees in a wide range of activities when many had to work from home due to country restrictions during the pandemic. The platform has 9'000 users from across all INEOS regions.



## 2.4.2 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.

Through our transparent and fair recruitment process, all candidates are kept up to date on the evolution of their application and are objectively reviewed at each stage. We ensure that the staff who undertake our recruitment activities have gone through adequate training.

INEOS employed 22'965 people in full-time employment at the end of 2021, excluding joint ventures, joint operations, and our sports, and fashion activities. Another 1'422 people were employed at jointly controlled sites and around 500 people worked for our sports and fashion businesses. In total, in 2021, INEOS had 24'887 employees worldwide.

In each of our locations, where possible, 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 our European Commercial Programme.

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 our graduates 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.

In year four, our graduates can take part in an unforgettable adventure together, to redefine their limits in our IN-NAM challenge: a seven-day adventure in the Namibian desert.





## PEOPLE

### 2.4.2 Recruitment, development, and remuneration

(continued).

Training and development are continuous processes at INEOS. From the first day of introduction onwards, safety and job-related training is paramount. We focus on enhancing professional and technical knowledge, as well as developing 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 all employees are expected to participate in regular 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 deliver these for each employee. Best practices are shared across the group and experiences and achievements compared and built upon.

## 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

25'000 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





## PEOPLE

### 2.4.2 Recruitment, development, and remuneration



**In 2021, we recorded a global average of around 60 hours of training per employee, which is 30 hours more than 2020 due to more accurate reporting.**

Training is tailored to meet each business' needs, but falls into the following main categories:

#### Training categories

Health and safety (e.g. lifesaving rules, process and behavioural safety, hazard communication, hearing awareness, transport of hazardous materials)

Environment (e.g. spill prevention and response, energy conservation and environmental awareness, waste, and wastewater management)

Workforce and human rights: (e.g. leadership effectiveness, soft skills development, discrimination and harassment, media training, presentation skills)

Ethics and compliance (e.g. anti-bribery and corruption, anti-slavery and people trafficking, competition/anti-trust law, sanctions, IT security)

Sustainable procurement (e.g. Supplier Code of Conduct, international trade sanctions)

Our remuneration strategy is to pay above market rates and to reward productive team behaviours. We have a fixed pay element set annually and linked to individual performance in a given role, and a variable pay element linked to business performance on safety and other goals (see section 1.3.3 sustainability governance).

The actual reward structure varies by country and business, but in all cases, we ensure that our overall compensation is competitive in the appropriate market.

Senior managers through to board members are rewarded using global benchmarks to ensure consistent treatment at this level and to aid movement and progression within INEOS.





### 2.4.3 Diversity, inclusion, and equality

**INEOS is a global company that values diversity. We respect the rights, values, and dignity of all our employees, customers, contractors, vendors, and other stakeholders. All our employees, wherever they are in the world, know that they must hold themselves to the highest standards of ethics, integrity, openness, and accountability.**

Our INEOS Speak Up! whistleblowing service allows employees to share concerns anonymously if they believe anyone representing INEOS is not acting consistently with these values. Speak Up! is accessible via an independent third party online or through a 24/7 toll-free phone number.

All employees understand that they have a duty to ensure that decisions regarding recruitment, selection, development, and advancement are based on merit, qualifications, demonstrated skills, and achievements. We practice 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. We maintain fair, balanced and objective pay for

all our employees worldwide. 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 and distributed to everyone within the company. All other stakeholders can access the code via our website.

As of the end of 2021, 17% of our workforce was female and 83% male (excluding our joint operations and joint ventures and sports and fashion businesses). This gender gap is reflected in the wider chemical industry. To encourage a more diverse range of job applicants, we promote science, engineering, and chemistry to young people, for instance through our TuWas! programme and STEM Crew initiative. In the coming years, we will start to report on gender pay within INEOS.

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

**To encourage a more diverse range of job applicants, we promote science, engineering, and chemistry to young people.**





PEOPLE



## INEOS employees ride “their” Tour de France raising €134’000 for charity



INEOS | CASE STUDY

For the sixth time, INEOS employees have participated in the Tour de France in their own way, with 113 teams riding the equivalent distance of every stage of the tour.

### Simple idea, famous challenge

The idea is simple. Employees form teams to collectively cycle the equivalent distance of each tour stage. Teams that complete the challenge are given £1000 to donate to a charity of their choice. Everyone is welcome, with all journeys counted, and all types of bicycle accepted (including e-bikes and training bikes).

### INEOS’ only all-female cycling team

Nineteen colleagues from INEOS O&P in Lillo formed INEOS’ first all-female cycling team. Only two members of the team were used to cycling regularly, which shows how the initiative is getting more INEOS employees on bikes.

In total, 1,283,865 km were covered in this year’s Tour de France challenge by a total of 2,569 riders spread across 31 countries, which raised €134,000 for local charities.





## PEOPLE

## Girls into STEM: encouraging the net zero generation



## INEOS | CASE STUDY

The Girls into STEM initiative is part of our ongoing work with schools and further education providers to encourage young people to pursue a STEM-related career by enabling them to meet and spend time with inspirational STEM ambassadors.

An event organised by the 1851 Trust and supported by the Department for Transport, held at the iconic Falkirk Wheel, has seen more than 250 girls from schools across the region come together to be inspired into becoming the next generation of female scientists, engineers, and mathematicians and to discover the range of STEM opportunities available to them when choosing a future career.

The event was supported by enthusiastic female employees from O&P UK and FPS as well as other women working in STEM-related roles in local businesses and industry.





## PEOPLE

## 2.5 People in our value chain: safeguarding conditions and human rights

**INEOS respects the rights in the International Bill of Human Rights and the International Labour Organization Declaration on Fundamental Principles and Rights at Work.**

We recognise the right to collective bargaining and freedom of association, and we work to prevent any instances of forced or compulsory labour, child labour, or employment discrimination in our value chains. We require our suppliers to protect human rights and ensure their employees are safe and well treated.

We work with responsible suppliers that comply with applicable laws and adhere to internationally recognised environmental, social and governance (ESG) standards, including those set forth in our Code of Conduct and SHEQ policy. INEOS believes that workers in the value chain deserve a fair and ethical workplace and must be treated with dignity and respect.

Through our Supplier Code of Conduct, we require our suppliers to protect human rights and provide a safe and fair working environment for employees by meeting standards in the following areas:

### Supplier Code of Conduct key areas

Health and safety

Anti-discrimination, anti-harassment, and abuse

Prevention of forced labour and human trafficking

Prevention of child/underage labour

Avoidance of conflict minerals

Fair working conditions

Freedom of association and collective bargaining







## PEOPLE

### 2.5.1 Modern slavery and people trafficking in the supply chain

#### INEOS takes a zero-tolerance approach to modern slavery in the supply chain.

Most of INEOS' activities are carried out in the EU and US and can be considered at lower risk of modern slavery. But we recognise our responsibility to engage with value chain partners and staff, and alert them to the risks of slavery, however small, in their businesses and supply chains and help them act on it.

Our approach includes regular checks and due diligence for onboarding 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.

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 are not taking place anywhere in our supply chains.

Further information on INEOS' policy on modern slavery can be found in our [Modern Slavery Transparency Statement](#).





## PEOPLE

### 2.5.2 Supplier and customer monitoring

**Our Supplier Code of Conduct 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 in terms of CSR.**

The Group-wide [Supplier Code of Conduct](#) is part of 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 to monitor their CSR and ESG performance. All replies are automatically updated into a central database accessible to all INEOS businesses.

INEOS provides sustainable procurement training and disseminates information across its businesses to implement the Supplier Code of Conduct, which includes sharing examples of contractual clauses and assessments, and putting in place monitoring systems.

On 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 who value their employees' human rights.

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

#### SCoC KPIs

Distribution of the Supplier Code of Conduct

Inclusion of social and environmental clauses in standard terms of purchase and in contracts

Proportion of suppliers that have signed the Supplier Code of Conduct or equivalent

Proportion of procurement staff that have attended sustainable procurement training or self-training programme

Response rate to the supplier questionnaire

Suppliers with third party CSR accreditation and which rating bands they belong to (i.e. platinum, gold, silver or bronze)





## PEOPLE

## 2.6 People in our communities: respecting and supporting local communities

**INEOS is committed to being a responsible neighbour and supporting local communities around our sites. We recognise that this underpins our licence to operate and is essential to the long-term prosperity of our business.**

All INEOS businesses are required to operate according to robust SHE standards made clear in our Code of Conduct and SHEQ policy, both of which are designed to prevent incidents that could harm people in the vicinity of our sites or pollute the local environment.

We consult communities about any development, and we seek to collaborate with neighbouring companies to strengthen local economies, use resources efficiently, and minimise waste. We have played a leading role in developing strong industrial clusters in Antwerp in Belgium, Cologne in Germany, Lavera in France, Grangemouth and Hull in the UK, Houston in the US, and Rafnes in Norway.

To minimise disturbance to local communities, we ensure that noise and odour pollution is kept to the lowest possible level around our facilities. Our sites perform regular measurements, either in their own right or through a third party, to make sure that any nuisance does not exceed the thresholds set by local legislation.

In addition to managing the impact of our sites on communities, INEOS is committed to supporting local causes and projects, with a focus on children, health, education, and access to grassroots sports. By working with schools, universities, hospitals, sports teams, local government, and charities we aim to inspire the next generation of scientists and engineers and promote general physical health, wellbeing, and fitness. As well as providing funding, our employees contribute time and expertise directly to local projects.

By working with schools, universities, hospitals, sports teams, local government, and charities **we aim to inspire the next generation** of scientists and engineers







### 2.6.1 INEOS charities and foundations

**INEOS is proud to support a wide range of charitable projects, such as The Ineos Oxford Institute, The Daily Mile and The Forgotten Forty.**

We are also involved in several conservation initiatives, including projects to preserve threatened Atlantic Salmon stocks in Iceland and protect the biodiversity of vital wetland regions in Tanzania. For further information, please refer to [our website](#).

The INEOS Oxford Institute



The INEOS Oxford Institute: In January 2021, INEOS announced a £100 million donation to Oxford University to establish the Ineos Oxford Institute for Antimicrobial Resistance (AMR) Research, which will work on tackling the global threat of drug-resistant infection.

The Daily Mile



The Daily Mile: Since 2016, INEOS has supported The Daily Mile initiative, which encourages children to develop positive habits for life by running a mile every day at school; over 3 million children from over 80 countries currently take part in the scheme.

The Forgotten Forty



The Forgotten Forty: In 2020, INEOS launched the Forgotten Forty initiative to alleviate childhood poverty in the UK by funding the most disadvantaged primary schools.





### 2.6.2 INEOS Sports and Fashion sustainability

**Sports and fashion receive significant media attention, giving both sectors an opportunity to promote sustainability on a global platform to millions of people.**

Having a sustainability strategy is also now essential in these sectors to meet the expectations of customers and spectators and comply with evolving regulations.

By signing up to international standards and developing codes of conduct and roadmaps to net zero, INEOS wants its sports and fashion teams to be world leaders in sustainability, acting as a catalyst for change across our company and beyond. This way we can inspire others to take positive action, identify solutions to collective challenges, and accelerate the pace of change in society.





# Governance



## 2.7 Governance: maintaining the highest standards of ethics and compliance

INEOS is committed to maintaining high ethical standards and operating responsibly in accordance with the law and its Code of Conduct, which is regularly updated and shared with our employees and key external stakeholders.

Individually and collectively our teams are accountable for legal compliance, and our requirements and behavioural expectations for all INEOS businesses and their employees are outlined in the code.

The board of each INEOS business is responsible for ensuring that it adheres to INEOS' policies and operates within the law at all times. Legal compliance is a regular item on board agendas. To assist the board, a compliance manager is embedded within each business.

The managers lead legal compliance initiatives, are responsible for ensuring INEOS policies are followed, and support the board with the development and implementation of a business compliance plan.

There are four key areas to compliance management that businesses must address:

1

ANTI-BRIBERY  
& CORRUPTION

2

ANTI-SLAVERY, ANTI-CHILD  
LABOUR & ANTI-PEOPLE  
TRAFFICKING

3

ANTI-TRUST  
/ COMPETITION LAW

4

INTERNATIONAL TRADE  
/ SANCTIONS

In addressing these areas in their compliance programmes, executive boards and compliance managers must have regard to the following elements of effective compliance management:

### 7 elements of effective compliance management

**Risk assessment:** Identifying risks when engaging with new counterparties or trading in new products or jurisdictions and assessing such risks by completing comprehensive due diligence.

**Prioritising and planning:** Prioritising and planning for outcomes using a risk-based approach built on the likelihood of an event occurring and its potential impact and severity.

**Training:** Identifying all staff who are exposed to actual or potential risk and ensuring they are allocated and complete required training in the four areas of compliance listed above, which is monitored using a virtual training assistant (VTA) system.

**Record keeping:** Ensuring complete and accurate records are kept of external advice received, training content and completion, board meetings, trade conferences and seminars, meetings with competitors, trade unions and other key stakeholders and external statements.

**Reviewing:** Reviewing business compliance plans regularly to account for changes in law, markets, and operations.

**Reporting:** Providing both the relevant board and the group legal compliance team with periodic reports on compliance issues as well as annual training completion statistics.

**Auditing:** Conducting periodic audits of the relevant business to ensure appropriate compliance priorities are identified and addressed for the business.



## 2.7 Governance: maintaining the highest standards of ethics and compliance

(continued.)

**While executive boards and compliance managers are best placed to effectively identify and manage compliance risks within their business according to specific business needs and circumstances, they are supported at the central level by the group legal compliance team.**

The group legal compliance team provides regular reporting and assurance on compliance matters to INEOS' shareholders. Significant business compliance issues are also reported to the shareholders of INEOS directly by the board of the relevant business.

The remit of the group legal compliance team includes the following:

### Group legal compliance team remit

Circulating guidance notes and regular updates on changing areas of law.

Providing free competition and commercial law helplines with external international law firms.

Maintaining a central legal compliance database containing internal policies, guidance notes, reference materials, checklists, process and procedural documents and sample contract terms and templates.

Auditing legal compliance across existing and newly acquired businesses and commissioning spot-audits on businesses in legal compliance areas.

Providing online training in compliance areas, supplemented by in-person training events hosted by external experts, monitored per business in the Group VTA system.

Hosting legal compliance conferences to discuss current issues, share knowledge and promote development.

Operating a compliance network for the sharing of best practice.

**INEOS is committed to an environment where open, honest communications are the expectation, not the exception.**

While INEOS encourages staff to report any instances of apparent or suspected malpractice to their senior manager in the first instance, INEOS also offers an independent whistleblowing service (known within the organisation as "Speak Up!"). The system is hosted by a third-party operator and enables employees and contractors working on INEOS sites to report any concerns across the following areas anonymously:

Dangers to safety, health & the environment

Financial malpractice, impropriety, or fraud

Failure to comply with a legal obligation or statutes

Criminal activity

Improper conduct or unethical behaviour

Attempts to conceal any of the above



The Speak-Up! system is accessible 24 hours a day, 365 days a year by staff at each INEOS site globally, with reports able to be made in local languages. The group legal compliance team has established detailed guidance for the handling of reports issued through the system, including KPIs for response times to ensure that all reports are addressed as a matter of priority and resolved in a timely fashion.

Reports are allocated to the human resources director or compliance manager of the relevant business (as appropriate) so they can be thoroughly investigated and enforcement action taken as required.





## A mission to mobilise a global movement of sustainable companies



### INEOS | CASE STUDY

As part of our commitment to sustainable and responsible business practices, INEOS has embedded the Ten Principles of the UN Global Compact into strategies and operations, and committed to respecting human and labour rights, safeguarding the environment, and working against corruption in all its forms.

The Global Compact seeks to promote responsible business practices by stimulating multi-stakeholder dialogue and providing knowledge, tools and mutual learning for businesses to engage in corporate responsibility and sustainability.

As one of INEOS' headquarters is in Switzerland, we joined the local UNGC network of Switzerland and Liechtenstein. We aim to leverage the UNGC guidance at both local and global level, making global goals local business. INEOS will do so by taking the 17 UN Sustainable Development Goals and the UNGC Ten Principles into account in our strategies.



### 2.7.1 Anti-bribery and corruption



**INEOS recognises its responsibility to maintain robust policies and ensure that its businesses and employees abide by all relevant laws and regulations to counter bribery and corruption in all the countries in which we operate.**

We strictly prohibit the payment of bribes, kickbacks or other payments to government personnel and other officials, as well as to suppliers and customers, or the request or solicitation, offer or promise in cash or kind to obtain or retain business or otherwise gain advantage for INEOS, irrespective of whether payments or offers are made directly or indirectly.

Each business is responsible for developing and maintaining internal controls that are proportionate to the risk of bribery and corruption faced by that business. Such controls must be subject to ongoing risk assessment, monitoring and updating in order to ensure they remain effective and valid in response to changing circumstances. Businesses are also required to conduct appropriate due diligence and screening processes before forming contractual

relationships with agents and distributors.

Training is provided to at-risk employees and monitored per business in the Group VTA system. All employees are encouraged to seek clarification and guidance in cases of doubt.

INEOS has a zero-tolerance approach to breaches of its anti-bribery and corruption policies and internal control procedures. Any reports of actual or suspected violations are thoroughly investigated and appropriate sanctions imposed for non-compliance.





### 2.7.2 Anti-trust and anti-competitive practices

**Vigorous competition, free from collusion and unreasonable restraints is the most effective mechanism for ensuring that INEOS produces high-quality, well-priced products and services.**

Anti-trust laws and competition laws regulate anti-competitive conduct by companies to ensure that this fair competition exists in an open-market economy. These laws are relevant to all INEOS businesses and ensuring compliance with these laws forms an integral part of each business' compliance plan.

Failure to comply with competition, anti-trust, and other trade regulation laws in any jurisdiction in which we conduct business could result in serious consequences, for INEOS and the offending individuals, including significant civil and criminal penalties.

To mitigate risk, employees are regularly trained on applicable anti-trust and competition rules and regulations and free helplines have been established with external legal advisers to which employees may direct queries at any time. Businesses are also required to carry out regular assessments to identify areas of potential risk in their business relating to anti-competitive behaviour.





### 2.7.3 IT security

**IT systems of large companies are under constant attack, which is why INEOS has a Group-wide management system in place to minimise digital security risks.**

We conduct regular threat hunting across INEOS' platforms and have a Group-wide contract with a leading provider to monitor and alert us to potential threats across our network. INEOS is committed to respecting the intellectual property and data of customers, suppliers, and employees in full compliance with regulations, including the General Data Protection Regulation.

All INEOS employees are obliged to undergo regular cyber security training and have received a copy of our "10 golden IT security rules", which they are required to follow under our Code of Conduct. In addition to our behavioural codes, we have IT security incident management guides and Cybersecurity Incident Response Plans (CIRPs) in place, and we regularly undertake system vulnerability assessments and IT audits.







## 2.7.4 Political engagement

**INEOS does not make any financial or in-kind political contributions and is committed to transparent political engagement that is in the interests of democracy and good governance.**

We abide by all local regulations on lobbying and all our employees are required to follow the rules set out in our [Code of Conduct](#) when interacting with government representatives or undertaking political activity.

INEOS does not tend to participate directly in political activity, but we do regularly engage in policy debates of legitimate concern to us through trade associations. By contributing to briefings and meetings in this way, we aim to provide useful information and lend valuable expertise to the policymaking process. Our corporate affairs departments for climate and energy and communications are responsible for overseeing this political activity, which is supported by INEOS' networks.

INEOS discloses information on its EU political engagement via the EU transparency register. Our [submission](#) details the areas of policy we engage on, the associations we are a member of, and the financial and human resources we devote to political activity. Our financial expenditure is calculated based on the number of FTEs involved and our contribution to associations (primarily Cefic). We also disclose information on our climate-related political engagement in our CDP disclosure.

We engage on policy concerning climate change, energy, the circular economy, pollution, chemical regulation, and energy-intensive industries. The positions we advocate in our political engagement, and the positions advocated by our associations, are consistent with our public statements and commitments.

For further memberships, partnerships, and industry charters, please refer to our [website](#).

### Industry charters and voluntary agreements:

United Nations Global Compact

Carbon Disclosure Project

Responsible Care Global Charter

Operation Clean Sweep

Cefic sustainability charters and product charters, e.g. glycol ethers charter

PlasticsEurope voluntary agreements

Styrenics Circular Solutions (INEOS Styrolution)

VinylPlus (INOVYN)

Polyolefins Circular Economy Platform (INEOS O&P)

Circular Plastics Alliance

European Chemicals Agency charter on REACH

SusChem





# 3

## Annexes

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# Independent limited assurance report on selected Sustainability Information of INEOS AG

## To the Board of Directors of INEOS AG, Rolle

We have undertaken a limited assurance engagement on INEOS AG's (hereinafter "INEOS") Sustainability Information in the following sections of the Sustainability Report for the year ended December 31, 2021 (hereinafter "Sustainability Information"):

---

The organization and its reporting practices as per GRI 2-1

---

Entities included in the organization's sustainability reporting as per GRI 2-2

---

Reporting period, frequency and contact point as per GRI 2-3

---

Process to determine material topics as per GRI 3-1

---

List of material topics as per GRI 3-2

---

Direct (Scope 1) GHG emissions as per GRI 305-1 and GHG protocol

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Indirect (Scope 2) GHG emissions as per GRI 305-2 and GHG protocol

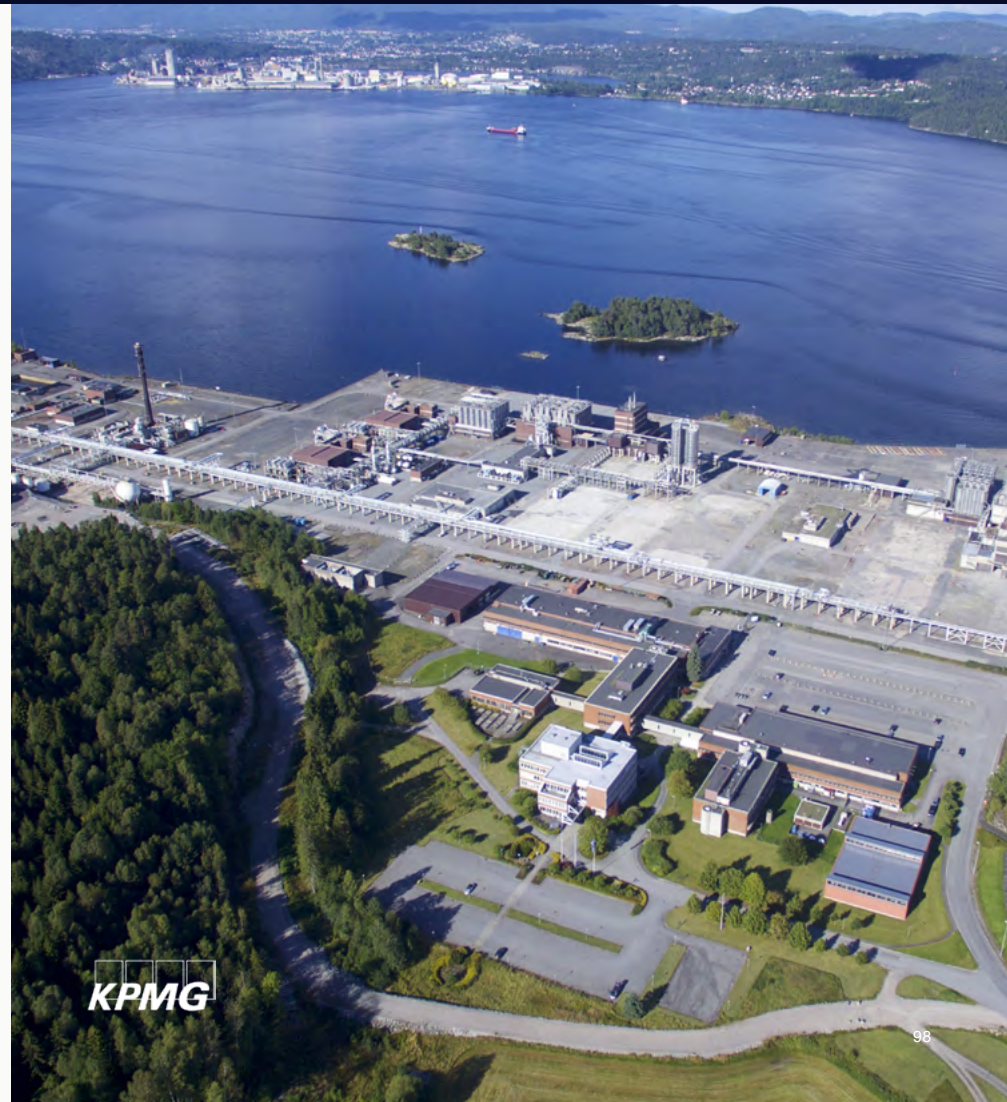
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Our assurance engagement does not extend to information in respect of earlier periods or to any other information included in the Sustainability Report, Annual Report or any other Report, including any images, audio files or embedded videos.

## Our Limited Assurance Conclusion

Based on the procedures we have performed as described under the 'Summary of the work we performed as the basis for our assurance conclusion' and the evidence we have obtained, nothing has come to our attention that causes us to believe that INEOS's Sustainability Information in the above-mentioned sections of the Sustainability Report for the year ended December 31, 2021 is not prepared, in all material respects, in accordance with the Global Reporting Initiative (GRI) Standards and the Greenhouse Gas protocol (GHG).

We do not express an assurance conclusion on information in respect of earlier periods or to any other information included in the Sustainability Report, Annual Report or any other Report, including any images, audio files or embedded videos.



### Understanding how INEOS AG has Prepared the Sustainability Information

The GRI Standards and the GHG protocol have been used as criteria references for the disclosures. Consequently, the Sustainability Information needs to be read and understood together with the GRI Standards and the GHG protocol.

### Inherent Limitations in Preparing the Sustainability Information

Due to the inherent limitations of any internal control structure, it is possible that errors or irregularities may occur in disclosures of the Sustainability Information and not be detected. Our engagement is not designed to detect all internal control weaknesses in the preparation of the Sustainability Information because the engagement was not performed on a continuous basis throughout the period and the audit procedures performed were on a test basis.

### INEOS's Responsibilities

The Board of Directors of INEOS is responsible for:

Selecting or establishing suitable criteria for preparing the Sustainability Information, taking into account applicable law and regulations related to reporting the Sustainability Information;

The preparation of the Sustainability Information in accordance with the criteria (GRI/GHG);

Designing, implementing and maintaining internal control over information relevant to the preparation of the Sustainability Information that is free from material misstatement, whether due to fraud or error.

### Our Responsibilities

We are responsible for:

Planning and performing the engagement to obtain limited assurance about whether the Sustainability Information is free from material misstatement, whether due to fraud or error;

Forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained; and

Reporting our independent conclusion to the Board of Directors of INEOS.

As we are engaged to form an independent conclusion on the Sustainability Information as prepared by management, we are not permitted to be involved in the preparation of the Sustainability Information as doing so may compromise our independence.

### Professional Standards Applied

We performed a limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised) Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board.

### Our Independence and Quality Control

We have complied with the independence and other ethical requirements of the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality, and professional behaviour.

Our firm applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

Our work was carried out by an independent and multidisciplinary team including assurance practitioners and sustainability experts. We remain solely responsible for our assurance conclusion.







### Summary of the Work we Performed as the Basis for our Assurance Conclusion

We are required to plan and perform our work to address the areas where we have identified that a material misstatement of the Sustainability Information is likely to arise. The procedures we performed were based on our professional judgment. Carrying out our limited assurance engagement on the Sustainability Information included, among others:

Assessment of the design and implementation of systems, processes and internal controls for determining, processing and monitoring sustainability performance data, including the consolidation of data;

Inquiries of employees responsible for the determination and consolidation as well as the implementation of internal control procedures regarding the selected disclosures;

Inspection of selected internal and external documents to determine whether quantitative and qualitative information is supported by sufficient evidence and presented in an accurate and balanced manner;

Assessment of the data collection, validation and reporting processes as well as the reliability of the reported data on a test basis and through testing of selected calculations;

Analytical assessment of the data and trends of the quantitative disclosures included in the scope of the limited assurance engagement;

Assessment of the consistency of the disclosures applicable to INEOS AG with the other disclosures and key figures and of the overall presentation of the disclosures through critical reading of the Sustainability Report.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

**KPMG AG**

Zurich, 12 October 2022

— Silvan Jurt

Licensed audit expert

— Cyrill Kaufmann

Licensed audit expert

## 3.2 Sustainability data

**Table 1**

**INEOS AG Greenhouse  
Gas inventory**

**Footnotes:**

- a. 2019 is defined as reference year for tracking INEOS' footprint over time; historical data is recalculated following the all-year/same-year approach taking into account the structural changes
- b. Other GHG emissions are converted to CO<sub>2</sub>e using the 100-year Global Warming Potential (GWP) factors from IPCC's fifth assessment report; CH<sub>4</sub> and N<sub>2</sub>O emissions are 3004 t and 136 t respectively in 2021, while other GHG data are collected only in t CO<sub>2</sub>e due to lower materiality.
- c. Emissions on energy exported to 3rd parties are reported as a separate subcategory of scope 1; all emissions in this category are in CO<sub>2</sub> with negligible contribution of other GHGs (<0.01%).
- d. The scope 2 figure is based on gross energy purchase with negligible contribution of other GHGs (<0.01%); highest quality available emission factors are used as per the hierarchy in the GHG protocol.
- e. Total emissions are calculated using the market-based scope 2 figure; this figure is also reported in INEOS' sustainability report and is used as basis for INEOS' climate strategy.
- f. Captured CO<sub>2</sub> is mostly transferred outside our boundary and sold to 3rd parties; only 1% of the capture is mineralised onsite to produce carbonate.

[kt CO <sub>2</sub> e]	2021	2020 <sup>a</sup>	2019 <sup>a</sup>
<b>Scope 1 emissions:</b>			
Carbon dioxide (CO <sub>2</sub> )	16'018.380	15'707.407	16'421.964
Other GHG emissions <sup>b</sup> :			
Methane (CH <sub>4</sub> )	84.111	86.852	69.255
Nitrous oxide (N <sub>2</sub> O)	36.168	35.704	44.942
Hydrofluorocarbons (HFC)	30.156	11.567	22.186
Perfluorocarbons (PFC)	0.000	0.000	9.640
Sulphur hexafluoride (SF <sub>6</sub> )	0.524	0.000	0.000
Nitrogen trifluoride (NF <sub>3</sub> )	0.000	0.000	0.000
Exported energy to 3rd parties <sup>c</sup>	1'053.931	1'105.834	1'087.915
<b>Scope 2 emissions<sup>d</sup>:</b>			
Market-based emissions	6'593.995	6'931.526	7'417.849
Location-based emissions	5'386.074	5'400.261	5'899.339
<b>Total emissions<sup>e</sup> excluding exported energy</b>	<b>22'763.334</b>	<b>22'773.056</b>	<b>23'985.835</b>
Total emissions incl. exported energy	23'817.265	23'878.891	25'073.750
<b>Additional data</b>			
Captured CO <sub>2</sub> <sup>f</sup>	321.097	286.801	292.503
Biogenic CO <sub>2</sub> from fuels	17.291	18.955	13.531
Biogenic CO <sub>2</sub> from imported energy	331.917	262.849	243.207
Offsets	-	-	-

## 3.2 Sustainability data

**Table 2**

**INEOS Enterprises  
Holdings Limited  
Greenhouse gas inventory**

The following four GHG inventories correspond to the main INEOS entities that produce consolidated financial accounts, namely INEOS Enterprises Holdings Limited, INEOS Industries Limited, INEOS Group Holdings SA, and INEOS Quattro Holdings Limited. These entities are all included within the reporting boundary of INEOS AG. But it should be noted that the INEOS AG inventory is not equivalent to the sum of these four inventories because INEOS Quattro Holdings Limited is a subsidiary of INEOS Industries Limited, and certain INEOS AG entities are not included with the boundary of these four inventories (see About this Report). It should also be noted that a global reporting boundary has been used for each entity, which is why the figures for INEOS Enterprises Holdings Limited and INEOS Industries Limited are larger than those reported under the Streamlined Energy and Carbon Reporting framework in the UK.

[kt CO <sub>2</sub> e]	2021	2020	2019
<b>Scope 1 emissions:</b>			
Carbon dioxide (CO <sub>2</sub> )	938.825	937.629	884.080
Other GHG emissions <sup>b</sup> :			
Methane (CH <sub>4</sub> )	0.189	0.183	0.088
Nitrous oxide (N <sub>2</sub> O)	0.180	0.178	0.102
Hydrofluorocarbons (HFC)	0.196	0.085	0.205
Perfluorocarbons (PFC)	0.000	0.000	0.000
Sulphur hexafluoride (SF <sub>6</sub> )	0.000	0.000	0.000
Nitrogen trifluoride (NF <sub>3</sub> )	0.000	1.000	2.000
Exported energy to 3rd parties <sup>c</sup>	19.725	22.940	39.244
<b>Scope 2 emissions<sup>d</sup>:</b>			
Market-based emissions	468.915	493.544	719.937
Location-based emissions	458.042	444.811	531.917
<b>Total emissions excluding exported energy</b>	<b>1'408.305</b>	<b>1'432.619</b>	<b>1'606.411</b>
Total emissions incl. exported energy	1'428.030	1'455.558	1'645.655
<b>Additional data</b>			
Captured CO <sub>2</sub> <sup>f</sup>	0.000	0.000	0.000
Biogenic CO <sub>2</sub> from fuels	0.000	0.000	0.000
Biogenic CO <sub>2</sub> from imported energy	0.000	0.000	0.000
Offsets	-	-	-

## 3.2 Sustainability data

**Table 3**

INEOS Industries  
Limited Greenhouse  
gas inventory

[kt CO <sub>2</sub> e]	2021	2020	2019
<b>Scope 1 emissions:</b>			
Carbon dioxide (CO <sub>2</sub> )	5'286.079	5'330.582	5'507.638
Other GHG emissions <sup>b</sup> :			
Methane (CH <sub>4</sub> )	55.317	57.366	53.077
Nitrous oxide (N <sub>2</sub> O)	4.365	3.943	2.651
Hydrofluorocarbons (HFC)	23.517	8.856	13.258
Perfluorocarbons (PFC)	0.000	0.000	9.640
Sulphur hexafluoride (SF <sub>6</sub> )	0.524	0.000	0.000
Nitrogen trifluoride (NF <sub>3</sub> )	0.000	1.000	2.000
Exported energy to 3rd parties <sup>c</sup>	837.510	862.042	881.087
<b>Scope 2 emissions<sup>d</sup>:</b>			
Market-based emissions	4'695.204	4'794.848	4'891.587
Location-based emissions	3'750.116	3'503.394	3'881.719
<b>Total emissions excluding exported energy</b>	<b>10'065.006</b>	<b>10'196.595</b>	<b>10'479.851</b>
Total emissions incl. exported energy	10'902.516	11'058.637	11'360.938
<b>Additional data</b>			
Captured CO <sub>2</sub> <sup>f</sup>	40.105	25.921	35.771
Biogenic CO <sub>2</sub> from fuels	11.351	12.636	12.956
Biogenic CO <sub>2</sub> from imported energy	305.735	246.753	220.166
Offsets	-	-	-



## 3.2 Sustainability data

**Table 4**

INEOS Group Holdings SA  
Greenhouse gas inventory

[kt CO <sub>2</sub> e]	2021	2020	2019
<b>Scope 1 emissions:</b>			
Carbon dioxide (CO <sub>2</sub> )	8'462.109	8'202.828	8'783.895
Other GHG emissions <sup>b</sup> :			
Methane (CH <sub>4</sub> )	26.320	26.041	14.975
Nitrous oxide (N <sub>2</sub> O)	21.421	21.884	32.095
Hydrofluorocarbons (HFC)	23.517	8.856	13.258
Perfluorocarbons (PFC)	4.698	2.475	7.308
Sulphur hexafluoride (SF <sub>6</sub> )	0.000	0.000	0.000
Nitrogen trifluoride (NF <sub>3</sub> )	0.000	1.000	2.000
Exported energy to 3rd parties <sup>c</sup>	539.509	564.319	524.526
<b>Scope 2 emissions<sup>d</sup>:</b>			
Market-based emissions	1'879.611	2'058.228	2'208.630
Location-based emissions	1'629.026	1'705.844	1'904.655
<b>Total emissions excluding exported energy</b>	<b>10'394.160</b>	<b>10'312.455</b>	<b>11'048.903</b>
Total emissions incl. exported energy	10'933.669	10'876.774	11'573.429
<b>Additional data</b>			
Captured CO <sub>2</sub> <sup>f</sup>	280.992	260.880	256.732
Biogenic CO <sub>2</sub> from fuels	5.940	6.319	0.575
Biogenic CO <sub>2</sub> from imported energy	26.182	16.096	23.041
Offsets	-	-	-

## 3.2 Sustainability data

**Table 5**

INEOS Quattro Holdings Limited  
Greenhouse gas inventory

[kt CO <sub>2</sub> e]	2021	2020	2019
<b>Scope 1 emissions:</b>			
Carbon dioxide (CO <sub>2</sub> )	3'633.989	3'662.025	3'818.506
Other GHG emissions <sup>b</sup> :			
Methane (CH <sub>4</sub> )	39.711	41.138	34.485
Nitrous oxide (N <sub>2</sub> O)	4.323	3.768	2.444
Hydrofluorocarbons (HFC)	14.669	5.779	12.795
Perfluorocarbons (PFC)	0.000	0.000	9.640
Sulphur hexafluoride (SF <sub>6</sub> )	0.524	0.000	0.000
Nitrogen trifluoride (NF <sub>3</sub> )	0.000	1.000	2.000
Exported energy to 3rd parties <sup>c</sup>	307.301	284.238	295.336
<b>Scope 2 emissions<sup>d</sup>:</b>			
Market-based emissions	4'258.083	4'374.789	4'421.198
Location-based emissions	3'331.910	3'090.347	3'416.297
<b>Total emissions excluding exported energy</b>	<b>7'951.300</b>	<b>8'088.499</b>	<b>8'301.068</b>
Total emissions incl. exported energy	8'258.601	8'372.737	8'596.403
<b>Additional data</b>			
Captured CO <sub>2</sub> <sup>f</sup>	2.955	2.903	2.900
Biogenic CO <sub>2</sub> from fuels	0.000	0.000	0.001
Biogenic CO <sub>2</sub> from imported energy	305.735	246.753	220.166
Offsets	-	-	-

## 3.2 Sustainability data

**Table 6**

**Breakdown of  
energy footprint**

We calculate our energy consumption from fuels using the lower heating value and mass flow rate of each fuel. The energy content of our steam, electricity, and other utilities is typically calculated based on invoices. Electricity is directly metered but steam consumption is metered in terms of mass flow, which is multiplied with enthalpy to calculate its energy content.

[PJ]	2021
<b>TOTAL FUEL CONSUMPTION</b>	<b>278.5</b>
Non-renewable fuels	278.3
Renewable fuels	0.2
<b>TOTAL ELECTRICITY CONSUMPTION</b>	<b>41.2</b>
Non-renewable electricity	41.2
Renewable electricity	5.7
Exported electricity	5.6
<b>TOTAL HEAT CONSUMPTION</b>	<b>25.7</b>
Non-renewable heat	38.3
Renewable heat	0.2
Exported heat	13.5
<b>TOTAL OTHER UTILITIES</b>	<b>0.1</b>
Non-renewable other utilities	0.1
Renewable other utilities	0.0
Exported other utilities	0.0

## 3.2 Sustainability data

**Table 7**

Breakdown of  
water footprint

[Mm³]	2021					
SITES	FRESH WATER WITHDRAWAL (≤1,000 MG/L TOTAL DISSOLVED SOLIDS)			OTHER WATER WITHDRAWAL (>1,000 MG/L TOTAL DISSOLVED SOLIDS)		TOTAL WATER WITHDRAWAL
	SURFACE WATER	GROUND WATER	THIRD PARTY WATER	SEA WATER	PRODUCED WATER	
in water stress areas	11.71	3.82	4.17	4.15	0.07	23.92
Others	300.05	44.63	208.57	526.30	6.47	1'086.03
<b>Total</b>	<b>311.77</b>	<b>48.45</b>	<b>212.75</b>	<b>530.45</b>	<b>6.54</b>	<b>1'109.95</b>

[Mm³]	2021				
SITES	DISCHARGE OF WATER DIRECTLY TO SURFACE WATERS	DISCHARGE OF WATER TO GROUNDWATER	DISCHARGE OF WATER TO A THIRD PARTY	DISCHARGE OF WATER TO SEA	TOTAL WATER DISCHARGE
in water stress areas	12.93	0.02	0.30	4.93	18.18
Others	329.64	6.62	49.54	617.11	1'002.91
<b>Total</b>	<b>342.57</b>	<b>6.64</b>	<b>49.84</b>	<b>622.04</b>	<b>1'021.09</b>

[Mm³]	2021
SITES	TOTAL WATER CONSUMPTION
in water stress areas	5.74
Others	83.12
<b>Total</b>	<b>88.87</b>

Changes in water storage levels are not considered material for water consumption calculations.



## 3.2 Sustainability data

**Table 8**

Breakdown of  
waste footprint

[t]	2021		
WASTE DIVERTED FROM DISPOSAL	ON SITE	OFF SITE	TOTAL
<b>HAZARDOUS WASTE</b>	<b>3'651</b>	<b>53'428</b>	<b>57'078</b>
Reuse	13	1'165	1'178
Recycling	3'638	52'262	55'900
<b>NON-HAZARDOUS WASTE</b>	<b>151</b>	<b>127'716</b>	<b>127'867</b>
Reuse	25	33'691	33'716
Recycling	126	94'025	94'151
<b>TOTAL</b>	<b>3'802</b>	<b>181'144</b>	<b>184'946</b>

[t]	2021		
WASTE DIRECTED TO DISPOSAL	ON SITE	OFF SITE	TOTAL
<b>HAZARDOUS WASTE</b>	<b>105'945</b>	<b>105'961</b>	<b>211'906</b>
Incineration (with energy recovery)	103'993	59'614	163'607
Incineration (without energy recovery)	1'511	17'708	19'219
Landfilling	440	12'031	12'472
Other disposal operation	-	16'608	16'608
<b>NON-HAZARDOUS WASTE</b>	<b>287'403</b>	<b>139'486</b>	<b>426'890</b>
Incineration (with energy recovery)	-	21'048	21'048
Incineration (without energy recovery)	11'123	22'620	33'744
Landfilling	276'280	73'965	350'245
Other disposal operation	-	21'853	21'853
<b>TOTAL</b>	<b>393'348</b>	<b>245'447</b>	<b>638'795</b>

## 3.2 Sustainability data

**Table 9**

Manufacturing site  
certifications

CERTIFICATION KPIS		2021			
		REGIONS			WORLDWIDE
		AMERICA	EUROPE	ASIA	
Proportion of sites with ISO certifications	ISO 9001	88.6%	87.7%	92.3%	88.6%
	ISO 14001	29.5%	86.0%	84.6%	64.0%
	ISO 17020/17025	4.6 %	8.8%	0	6.2%
	IGGNs (ISO45001/OHSAS18001)	100%	100%	100%	100%
	ISO 45001/OSHAS 18001	0	19.3%	23.1%	12.3%
	ISO 50001/EBO/ESOS	0	50.9%	23.1%	28.3%
Sites with feedstock certification	RSB	0	15	0	15
	ISCC PLUS	5	11	0	16
Carbon neutrality certifications (PAS2050/2060)		0	2	0	2

## 3.2 Sustainability data

**Table 10**

Environmental  
governance KPIs

[%]		2021			
ENVIRONMENTAL GOVERNANCE KPIS		REGIONS			WORLDWIDE
		AMERICA	EUROPE	ASIA	
Proportion of businesses with dedicated employee/team		100%	100%	100%	100%
Proportion of sites with dedicated employee/team		86.4%	92.4%	96.1%	91.6%
Proportion of dedicated site employees/ teams covering:	Emergency preparedness, response & investigation	97.7%	98.2%	100%	98.2%
	GHG emissions management	93.2%	89.5%	100%	92.1%
	Energy management & transition	43.2%	82.5%	84.6%	67.5%
	Hazardous material management	95.5%	98.2%	92.3%	96.4%
	Waste management	95.5%	98.2%	100%	97.4%
	Water management	93.2%	87.7%	100%	91.2%

## 3.2 Sustainability data

**Table 11**

Workforce  
governance KPIs

[%]		2021			
WORKFORCE GOVERNANCE KPIS		REGIONS			WORLDWIDE
		AMERICA	EUROPE	ASIA	
Proportion of businesses with dedicated employee/team		100%	100%	100%	100%
Proportion of sites with dedicated employee/team		80.1%	72.1%	71.1%	74.5%
Proportion of dedicated site employees/teams covering	Employee health and safety	100%	100%	100%	100%
	Diversity initiatives	56.8%	28.8%	23.1%	39.4%
	Community relations	77.3%	65.4%	76.9%	71.6%
	Working conditions and other labour relations	86.4%	94.2%	84.6%	89.9%
Total % of sites with a board-level signed letter of assurance (LoA)		100%	100%	100%	100%



## 3.2 Sustainability data

**Table 12**

Ethics governance  
KPIs

[%]		2021			
ETHICS GOVERNANCE KPIS		REGIONS			WORLDWIDE
		AMERICA	EUROPE	ASIA	
Proportion of businesses with dedicated employee/team		100%	100%	100%	100%
Proportion of sites with dedicated employee/team		81.2%	83.3%	84.6%	83.3%
Proportion of dedicated site employees/teams covering:	Anti-bribery and corruption	84.1%	84.2%	84.6%	84.2%
	Anti-trust and competitive practices	84.1%	80.7%	84.6%	82.4%
	Information/IT security	84.1%	89.5%	84.6%	86.8%

## 3.2 Sustainability data

**Table 13**

Sustainable procurement  
governance KPIs

[%]		2021			
SUSTAINABLE PROCUREMENT GOVERNANCE KPIs		REGIONS			WORLDWIDE
		AMERICA	EUROPE	ASIA	
Proportion of businesses with dedicated employee/team		100%	100%	100%	100%
Proportion of sites with dedicated employee/team		45.5%	64.9%	46.2%	52.2%
Proportion of dedicated site employees/teams covering	Anti-slavery and people trafficking	75.0%	78.9%	84.6%	78.1%
	Social management of suppliers	15.9%	50.9%	7.7%	32.7%
	Environmental management of suppliers	22.7%	57.9%	15.4%	39.8%

## 3.2 Sustainability data

**Table 14**

Employee  
demographics

MEASURE		2021			
		REGIONS			WORLDWIDE
		AMERICA	EUROPE	ASIA	
Total INEOS employee count		5'529	17'458	1'900	24'887
Manufacturing employee count exc. JOs/JVs		5'187	15'920	1'858	22'965
	Male employees	4'243	13'296	1'551	19'090 (83%)
	Female employees	1944	2'624	307	3'875 (17%)
Total new hires		672	838	99	1'609
	New male hires	537	641	74	1'252 (77%)
	New female hires	135	197	25	357 (23%)
Total turnover		1'518	1'616	299	3'433
	Total resignations	411	355	86	852
	Total terminations	183	174	25	382
	Total retirements	143	234	33	410
	Total other	781	853	155	1'789
Total % of employees covered by CLA/CBA		20.9%	77.2%	34.5%	61.5%
Total % of employees represented in SHE committees		48.8%	63.5%	69.2%	42%

## 3.2 Sustainability data

**Table 15**

Training data

[%]		2021			
MEASURE		REGIONS			WORLDWIDE
		AMERICA	EUROPE	ASIA	
Average training hours per employee		123.3	16.2	22.6	60
Proportion of sites providing training for:	Health and safety	100%	100%	100%	100%
	Environment	100%	84.9%	92.3%	92.7%
	Labour and human rights	84.1%	73.6%	76.9%	78.9%
	Ethics	100%	81.1%	92.3%	90.8%
	Sustainable procurement	29.5%	60.4%	76.9%	50.4%



### 3.3 Reporting Standards

#### 3.3.1 GRI

INEOS' 2022 sustainability report has been prepared in accordance with Global Reporting Initiative (GRI) standards, using GRI 1: Foundation 2021. This index sets out where information can be found in the report pertaining to specific GRI disclosures; namely all GRI 2 and GRI 3 disclosures, as well as the GRI disclosures of relevance to our material topics.

In addition to reporting GRI disclosures, INEOS also reports general information on sustainability topics of wider interest. The contents page sets out where this information can be located in the report.

In our materiality assessment, which was conducted in accordance with GRI 3, the following GRI 11 topics were identified as not material for INEOS as a Group in 2021; so have not been used to select disclosures for inclusion in the GRI index: *biodiversity, closure and rehabilitation, employment practices, non-discrimination and equal opportunity, forced labour and modern slavery, freedom of association and collective bargaining, economic impacts, local communities, land and resource rights, rights of indigenous peoples, conflict and security, anti-competitive behaviour, anti-corruption, and payments to governments.*



## 3.3.1.1 General disclosures

GRI	DISCLOSURE	CHAPTER	PAGE	COMMENTS
<b>The organisation and its reporting practices</b>				
2-1	Organisational details	Front cover ABOUT THIS REPORT 1.2.1 INEOS at a glance 1.2.2 Our structure	1 3 8 10	
2-2	Entities included in the organisation's sustainability reporting	ABOUT THIS REPORT 1.2.2 Our structure	3 10	Our audited consolidated financial statements are published online: <a href="#">INEOS Group Holdings SA</a> , <a href="#">INEOS Industries Limited</a> , <a href="#">INEOS Enterprises Holdings Limited</a> .
2-3	Reporting period, frequency and contact point	ABOUT THIS REPORT	3	
2-4	Restatements of information	2.1.2.1 Scope 1 and 2 emissions 3.2 Sustainability data (Table 1)	32 101	INEOS has restated its 2019 and 2020 greenhouse gas emissions to account for the acquisition of the Acetyls and Aromatics businesses, as well as the Hambach site, and the divestment of Norwegian oil and gas assets.
2-5	External assurance	3.1 Assurance report	98	After evaluating several providers, INEOS senior executives, with approval from INEOS' highest governance body, chose KPMG to externally assure certain disclosures in our 2022 report.
<b>Activities and workers</b>				
2-6	Activities, value chain and other business relationships	1.2.1 INEOS at a glance 1.2.2.1 Significant structural changes 1.2.3 Our products and market	8 11 12	Please refer to our website for further information on our i) <a href="#">businesses</a> ; ii) <a href="#">industries</a> ; iii) <a href="#">products (and upstream supply chains)</a> ; iv) <a href="#">markets</a> ; and v) <a href="#">consumer brands</a> .
2-7	Employees	ABOUT THIS REPORT 2.4 Our people: prioritising workplace health and safety (SHE) and fairness 2.4.2 Recruitment, development, and remuneration 2.4.3 Diversity, inclusion, and equality 3.2 Sustainability data (Table 10)	3 70  77 80 110	INEOS has introduced more accurate reporting in 2021 enabling employee figures to be broken down by gender and region.

2-8	Workers who are not employees			<p>Reason for omission: information incomplete. INEOS is putting in place processes to consolidate Group-wide data on contractors. We employ relatively few contractors compared to the total number of our employees.</p> <p>We recognise the following types:</p> <ul style="list-style-type: none"> <li>• <b>Service contractors</b> who visit INEOS sites to provide some type of non- maintenance service such as on-site transport, inspection, or testing.</li> <li>• <b>Maintenance contractors</b> who typically provide skilled trades to maintain, modify, install, or fix equipment.</li> <li>• <b>Project contractors</b> who are employed to construct specific projects of any nature, e.g. buildings, manufacturing facilities or process plant.</li> <li>• <b>Contract staff</b> who are hired from a contractor or agency to provide a design, production, maintenance, clerical, or other service for INEOS.</li> <li>• <b>Management contractors</b> who manage any of the above categories of works contractors or INEOS employees on behalf of INEOS.</li> <li>• <b>Distribution contractors</b> who transport INEOS products.</li> </ul>
<b>Governance</b>				
2-9	Governance structure and composition	ABOUT THIS REPORT 1.2.2 Our structure 1.3.3 Sustainability governance	3 10 20	<p>More information on our highest governance body can be found on our website: <a href="#">Our Leadership   INEOS Group.</a></p>
2-10	Nomination and selection of the highest governance body	1.2.2 Our structure	10	INEOS' highest governance body ('INEOS Capital') comprises the three owners of the company. This body appoints a CEO to the board of each INEOS business.
2-11	Chair of highest governance body	ABOUT THIS REPORT 1.1 Tackling global challenges 1.2.2 Our structure	3 4 10	
2-12	Role of highest governance body in overseeing the management of impacts	1.2.2 Our structure 1.3.1 Our commitments and policies 1.3.2 Our material topics 1.3.3 Sustainability governance	10 17 19 20	
2-13	Delegation of responsibility for managing impacts	1.2.2 Our structure 1.3.3 Sustainability governance	10 20	

2-14	Role of highest governance body in sustainability reporting	1.2.2 Our structure	10	By default, all sustainability statements made on behalf of INEOS must first be approved by INEOS Capital, INEOS' highest governance body. This includes our sustainability reporting.
2-15	Conflicts of interest	1.2.2 Our structure 1.3.1 Our commitments and policies 2.7 Governance: maintaining the highest standards of ethics and compliance	10 17 90	
2-16	Communication of critical concerns	1.2.2 Our structure 1.3.3 Sustainability governance 2.4.1.1 INEOS' health and safety management system 2.7 Governance: maintaining the highest standards of ethics and compliance	10 20 72 90	All topics of critical concern are discussed in monthly Exco meetings; each INEOS business' SHE performance receives prime attention. Any employee who wishes to report a concern anonymously, can do so via the <a href="#">INEOS Speak Up! service</a> .
2-17	Collective knowledge of the highest governance body	1.1.1 Statement from our Chairman and CEO 1.2.2 Our structure 1.3.3 Sustainability governance	5 10 20	Sustainability knowledge is disseminated through INEOS via our networks and shared with the highest governance body regularly.
2-18	Evaluation of the performance of the highest governance body			Since INEOS is a privately owned company, our highest governance body consists of our shareholders. This means they are not being evaluated by other stakeholders, unlike in listed companies.
2-19	Remuneration policies	1.3.3 Sustainability governance 2.4.2 Recruitment, development, and remuneration	20 77	More information on our remuneration strategy can be found on our website: <a href="#">Recruitment, Development and Remuneration</a>   <a href="#">INEOS Group and Code of Conduct</a>
2-20	Process to determine remuneration	1.3.3 Sustainability governance 2.4.2 Recruitment, development, and remuneration	20 77	More information on our remuneration strategy can be found on our website: <a href="#">Recruitment, Development and Remuneration</a>   <a href="#">INEOS Group and Code of Conduct</a>
2-21	Annual total compensation ratio			Reason for omission: not applicable. Fair remuneration is fundamental to INEOS, but we do not consider this metric to be a meaningful measure in a large privately owned company.



Strategy, policies, and practices				
2-22	Statement on sustainable development strategy	1.1 Tackling global challenges	4	
2-23	Policy Commitments	1.3.1 Our commitment and policies 2.4 Our people: prioritising workplace health and safety (SHE) and fairness 2.7 Governance: maintaining the highest standards of ethics and compliance	17 70 90	All Group-level policies mentioned in this report are approved at the highest governance level, and communicated to our internal and external stakeholders via our website: <a href="#">Policies and codes</a>
2-24	Embedding policy commitments	1.3.1 Our commitment and policies 1.3.3 Sustainability governance 2.4 Our people: prioritising workplace health and safety (SHE) and fairness 2.4.2 Recruitment, development, and remuneration 2.7 Governance: maintaining the highest standards of ethics and compliance 3.2 Sustainability data (Tables 6–9 and 11)	17 20 70 77 90 101	More information on how we ensure responsible business conduct can be found on our website: <a href="#">Governance   INEOS Group</a> , <a href="#">Compliance   INEOS Group</a> , <a href="#">Delegation and Controls   INEOS Group</a> and <a href="#">Code of Conduct   INEOS Group</a> .
2-25	Processes to remediate negative impacts	2.4.1.1 INEOS' health and safety management system 2.6 People in our communities: respecting and supporting local communities 2.7 Governance: maintaining the highest standards of ethics and compliance 3.2 Sustainability data (Tables 12)	72 86 90 101	<p>As outlined in our IGGNs (INEOS Group Guidance Notes), INEOS monitors complaints from members of the public, as well as employees from other companies working at our sites, and regulatory authorities (including prosecutions and citations).</p> <p>Complaints are classified according to significance as follows:</p> <ul style="list-style-type: none"> <li>• <b>Category I:</b> Complaints from members of the public not considered to be justified against INEOS after appropriate investigation has been carried out.</li> <li>• <b>Category IIa:</b> Justified complaints from members of the public where three or fewer persons complained about the same event..</li> <li>• <b>Category IIb:</b> Justified complaints from members of the public where more than 3 persons complained about the same event.</li> <li>• <b>Category III:</b> Formal written complaints from regulatory authorities, including legally enforceable instruments requiring specific improvement.</li> </ul> <p>Issues are investigated and addressed as they arise. Each business gathers and reviews data on site complaints to determine what action is required and for the purposes of preparing its annual letter of assurance to INEOS' highest governance body. We also have a list of contacts per INEOS business available on our website in case of emergencies and complaints: <a href="#">Contacts   INEOS</a>.</p>

2-26	Mechanisms for seeking advice and raising concerns	2.7 Governance: maintaining the highest standards of ethics and compliance	90	More information can be found in our <a href="#">Code of Conduct</a> , <a href="#">Supplier Code of Conduct</a> and the <a href="#">INEOS Speak Up! service</a> .
2-27	Compliance with laws and regulations	1.2.2 Our structure	10	Reason for omission: Information unavailable. INEOS is preparing to report this disclosure in future years.
2-28	Membership associations	1.3.1 Our commitment and policies 1.3.4 Contributing to the UN SDGs 2.3.1 Avoiding pollution to air, water, and soil 2.3.2.1 Compliance with REACH 2.3.2.2 Responsible Care and product stewardship 2.6.1 INEOS charities and foundations 2.7.4 Political engagements	17 22 62 67 68 87 96	Further information on our memberships, charities, and foundations can be found on our website: <a href="#">Associations, Charities and Foundations</a> .
<b>Stakeholder engagement</b>				
2-29	Approach to stakeholder engagement	1.3.2 Our material topics 1.3.4 Contributing to the UN SDGs 2.6 People in our communities: respecting and supporting local communities 3.2 Sustainability data (Table 12)	19 22 86 112	
2-30	Collective bargaining agreements	2.4 Our people: prioritising workplace health and safety (SHE) and fairness	70	

## 3.3.1.2 Management approach

GRI	DISCLOSURE	CHAPTER	PAGE	COMMENTS
3-1	Process to determine material topics	1.3.2 Our material topics	19	
3-2	List of material topics	1.3.2 Our material topics	19	
3-3	Management of material topics	Throughout		For each material topic, the following information is explained throughout: <ul style="list-style-type: none"> <li>• any INEOS policies and commitments,</li> <li>• any qualitative and/or quantitative targets,</li> <li>• any actions taken to achieve targets, which includes the tracking of action effectiveness,</li> <li>• any engagements, partnerships, memberships or equivalent to achieve these targets.</li> </ul>

## 3.3.1.3 Economics

GRI	DISCLOSURE	CHAPTER	PAGE	COMMENTS
Economic performance – INEOS' key material topics: climate change				
201-2	Financial implications and other risks and opportunities due to climate change	2.1.6 Climate risks and opportunities 1.3.1 Our commitments and policies	45 17	INEOS does not aim to disclose financial estimates related to climate risks and opportunities in its sustainability reports; however, estimates are disclosed in our annual CDP submission and the consolidated financial accounts of our three major finance groups, which can be found on our website: <a href="#">Investors   INEOS Group</a> .

## 3.3.1.4 Environment

GRI	DISCLOSURE	CHAPTER	PAGE	COMMENTS
Materials – INEOS' key material topics: circular economy				
301-2	Recycled input materials used	2.2 Circular economy: maximising resource efficiency and eliminating waste 2.2.3 Circularity in the value chain	46 54	INEOS is on track to meet and exceed its 2025 pledge and has set additional targets for 2030.
Energy – INEOS' key material topics: climate change				
302-1	Energy consumption within the organisation	2.1.3 Energy 2.1.4.1 Clean energy 3.2 Sustainability data (Table 2)	36 38 102	
302-2	Energy consumption outside of the organisation			Reason for omission: information unavailable. INEOS does not currently monitor energy consumption outside of the organisation.
302-3	Energy intensity	2.1.3 Energy 2.1.4.1 Clean energy	36 38	
302-4	Reduction of energy consumption	2.1.3 Energy 2.1.4.1 Clean energy	36 38	INEOS does not currently quantify energy consumption reductions achieved as a direct result of efficiency and conservation projects. We do disclose our energy consumption, however, and provide a qualitative statement regarding energy reduction measures and reasons for year-on-year changes in our energy footprint.
Water and effluents – INEOS' key material topics: pollution, water				
303-1	Activities, value chain and other business relationships	2.2.1 Water 1.3.1 Our commitments and policies 1.3.2 Our material topics	47 17 19	
303-2	Management of water discharge- related impacts	2.2.1 Water 2.3 Zero pollution 1.3.1 Our commitments and policies	47 61 17	
303-3	Water withdrawal	2.2.1 Water 3.2 Sustainability data (Table 7)	47 107	INEOS does not break down third-party water withdrawals in stress areas by source because this only represents 2% of our withdrawals.



303-4	Water discharge	2.2.1 Water 3.2 Sustainability data (Table 7)	47 107	Substances of concern in water are monitored according to local requirements and not reported globally.
303-5	Water consumption	2.2.1 Water 3.2 Sustainability data (Table 7)	47 107	
<b>Emissions – INEOS' key material topics: climate change, pollution</b>				
305-1	Direct (S1) GHG emissions	2.1.1 The INEOS science base 2.1.2.1 Scope 1 and 2 emissions 3.2 Sustainability data (Table 1-5)	31 32 101	
305-2	Indirect (S2) GHG emissions	2.1.1 The INEOS science base 2.1.2.1 Scope 1 and 2 emissions 3.2 Sustainability data (Table 1-5)	31 32 101	
305-3	Other indirect (S3) GHG emissions	2.1.2.2 Scope 3 emissions 2.1.5 Emission reductions in the supply chain	34 44	Reason for omission: information incomplete. INEOS does not currently monitor its scope 3 emissions from the whole value chain but has started assessing certain upstream scope 3 categories within the framework of product carbon footprints.
305-4	GHG emissions intensity	2.1.2.1 Scope 1 and 2 emissions	32	
305-5	Reduction of GHG emissions	2.1.2 GHG emissions 2.1.4 Our roadmaps and targets 2.1.5 Emission reductions in the supply chain	32 37 44	INEOS does not currently quantify emission reductions achieved as a direct result of abatement projects. We do disclose our emissions, however, and provide a qualitative statement regarding our emission reduction measures and reasons for year-on-year changes in our GHG footprint.
305-6	Emissions of ozone-depleting substances (ODS)	2.1.1 The INEOS science base 2.3.1 Avoiding pollution to air, water, and soil	31 62	Calculated according to the Montreal Protocol based on the ODSs released from chemicals production processes and utilities.
305-7	Nitrogen oxides (NOx), sulphur oxides (SOx), and other significant air emissions	2.1.1 The INEOS science base 2.3.1 Avoiding pollution to air, water, and soil	31 62	Calculated according to local reporting requirements for combustion gases and other air emissions.
<b>Waste – INEOS' key material topics: circular economy, pollution</b>				
306-1	Waste generation and significant waste-related impacts	2.2.2 Waste 1.3.1 Our commitments and policies 1.3.2 Our material topics	51 17 19	

306-2	Management of significant waste-related impacts	2.2.2 Waste 2.2.3.3 Product innovation 2.3 Zero pollution 1.3.1 Our commitments and policies	51 60 61 17	
306-3	Waste generated	2.2.2 Waste 3.2 Sustainability data (Table 8)	51 108	
306-3 (2016)	Significant spills	2.3.1 Avoiding pollution to air, water, and soil	62	INEOS uses its own, company-wide loss of containment measure to report on spills (IGGN01). We do not report on spills in financial statements.
306-4	Waste diverted from disposal	2.2.2 Waste 3.2 Sustainability data (Table 8)	51 108	
305-5	Waste directed to disposal	2.2.2 Waste 3.2 Sustainability data (Table 8)	51 108	

## 3.3.1.5 Society

GRI	DISCLOSURE	CHAPTER	PAGE	COMMENTS
<b>Employment – INEOS' key material topic: working conditions</b>				
401-1	New employee hires and employee turnover	3.2 Sustainability data (Table 14)	113	INEOS plans to consolidate data on new employee hires and turnover broken down by age group and gender in the coming years, where possible. For 2021, our hire rate was 0.065 and turnover rate 0.14.
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	1.3.3 Sustainability governance 2.4 Our people: prioritising workplace health and safety (SHE) and fairness	20 70	All INEOS employees are treated the same whether they have a permanent, temporary, full- time, or part-time contract. Our discretionary bonus is handed out on a pro-rata basis.
401-3	Parental leave			Reason for omission: information unavailable. INEOS does not consolidate data on parental leave at INEOS AG level.
<b>Occupational health and safety – INEOS' key material topic: workforce safety</b>				
403-1	Occupational health and safety management system	2.4.1 Health and safety: ensuring the safety of our people 2.4.1.1 INEOS' health and safety management system	71 72	Our health and safety management system (IGGNs) and policies cover anyone arriving on INEOS' premises, whether employee, contractor, service provider or visitor. Our internal standards are based on ISO standards and are designed to ensure compliance with all legal OSHA requirements. More information is available on our website: <a href="#">Safety, Health and Environment   INEOS Group, SHEQ Policy</a> .
403-2	Hazard identification, risk assessment, and incident investigation	1.3.1 Our commitments and policies 1.3.3 Sustainability governance 2.4.1 Health and safety: ensuring the safety of our people 2.4.1.1 INEOS' health and safety management system 2.7 Governance: maintaining the highest standards of ethics and compliance	17 20 71 72 90	More information is available on our website: <a href="#">Safety, Health and Environment   INEOS Group</a> .
403-3	Occupational health services	2.4.1 Health and safety: ensuring the safety of our people 2.4.1.1 INEOS' health and safety management system 2.4.1.3 Health and wellbeing	71 72 76	More information is available on our website: <a href="#">Safety, Health and Environment   INEOS Group</a> .

403-4	Worker participation, consultation, and communication on occupational health and safety	2.4 Our people: prioritising workplace health and safety (SHE) and fairness 2.4.1 Health and safety: ensuring the safety of our people 2.4.1.1 INEOS' health and safety management system 2.4.1.3 Health and wellbeing	70 71 72 76	Our employees and contractors participate in safety teams, contribute to incident learning, and suggest ongoing improvements to our health and safety procedures.  INEOS uses a Process Safety Group Intranet to: <ul style="list-style-type: none"> <li>• store best practice documents for the Group on Process Safety Management (PSM),</li> <li>• communicate and highlight PSM messages,</li> <li>• provide data on PSM KPIs throughout the Group,</li> <li>• provide a central location for advice on process safety issues.</li> </ul> More information is available on our website: <a href="#">Safety, Health and Environment   INEOS Group</a> .
403-5	Worker training on occupational health and safety	2.4.1 Health and safety: ensuring the safety of our people 2.4.2 Recruitment, development, and remuneration 3.2 Sustainability data (Table 15)	71 77 115	All our employees and contractors are offered occupational health and safety training covering generic and specific work-related hazards.
403-6	Promotion of worker health	2.4 Our people: prioritising workplace health and safety (SHE) and fairness 2.4.1.1 INEOS' Health and safety management system 2.4.1.3 Health and wellbeing	71 72 76	Our initiatives to support healthy lives have a separate page on our intranet and website ( <a href="#">Health and Wellbeing   INEOS Group</a> ). We also 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	2.3.2 Preventing pollution in the value chain 2.5 People in our value chain: safeguarding conditions and human rights 2.5.2 Supplier and customer monitoring	66 83 85	INEOS is extensively involved in the distribution of hazardous and non-hazardous products throughout Europe, the US, and Asia. We follow strict product stewardship protocols and make our expertise available to customers and emergency services in the event of an incident. We also require our customers and suppliers to meet occupational health and safety standards via our free carrier policy and Supplier Code of Conduct.  More information is available on our website: <a href="#">Safety, Health and Environment   INEOS Group</a> .
403-8	Workers covered by an occupational health and safety management system	2.4.1 Health and safety: ensuring the safety of our people 2.4.1.1 INEOS' health and safety management system	71 72	Our internally audited health and safety management system (IGGNs) covers anyone arriving at an INEOS site, whether employee, contractor, service provider, or visitor.
403-9	Work-related injuries	2.4.1 Health and safety: ensuring the safety of our people	71	INEOS follows the official US OSHA system when reporting on work-related injuries and ill-health. We do not distinguish between injuries and cases of ill-health, nor do we report separately on 'high-consequence' work-related injuries. Our figures cover employees and contractors.  We report incident rates in relation to 200'000 hours worked. The total number of hours worked (including employees and contractors) in 2021 was 80'045'070. We have a Group-wide system in place to ensure all OSHA recordables are entered into our central database and no injury or illness is left unmonitored. Injuries include cuts, fractures, sprains, and amputations. Illnesses include acute and chronic illnesses, such as skin diseases, respiratory disorders, and poisoning.  More information is available on our website: <a href="#">Safety, Health and Environment   INEOS Group</a> and <a href="#">Performance   INEOS Sustainability</a> .
403-10	Work-related ill-health	2.4.1.2 INEOS' health and safety performance	75	



**Training and education – INEOS' key material topic: working conditions**

404-1	Average hours of training per year per employee	2.4.2 Recruitment, development, and remuneration 3.2 Sustainability data (Table 15)	77 115	INEOS plans to consolidate data on training hours per employee category in the coming years. We offer the same training to all employees regardless of their gender, so do not break down figures by gender.
404-2	Programmes for upgrading employee skills and transition assistance programmes	2.4.2 Recruitment, development, and remuneration 3.2 Sustainability data (Table 15) 2.2.2 Waste 2.3.1 Avoiding pollution to air, water, and soil 2.4 Our people: prioritising workplace health and safety (SHE) and fairness 2.4.1.1 INEOS' health and safety management system 2.5.1 Modern slavery and people trafficking in the supply chain 2.5.2 Supplier and customer monitoring 2.7 Governance: maintaining the highest standards of ethics and compliance	77 115 51 62 70  71 84  85 90	INEOS is looking into reporting on transition assistance in the future.
404-3	Percentage of employees receiving regular performance and career development reviews	2.4.2 Recruitment, development and remuneration	77	Reason for omission: information incomplete. All INEOS employees are expected to have regular reviews (as outlined in section 2.4.2), but we do not have Group-wide data on the percentage of employees that received a review in the reporting period.

**Public policy – INEOS' key material topic: political influence**

415-1	Political contributions	2.7.4 Political engagement	96	
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**Customer health and safety**

416-1	Assessment of the health and safety impacts of product and service categories	2.3.2.1 Compliance with REACH 2.3.2.2 Responsible care and product stewardship	67 68	Our group-wide REACH network assesses the impact of all our products on the health and safety of our value chain partners. The network, which comprises around 40 members covering all INEOS businesses, manages global product safety related topics, and has regular meetings to share and discuss updates on matters such as the following: REACH policies; OSH interface (occupational safety and health); ECHA registration, evaluation and authorisation changes; SDS (safety data sheets) and data sharing; CLP legislation (classification, labelling and packaging); wider developments in REACH regulations (e.g. Korean REACH, Turkey REACH, UK REACH); product stewardship; and trade association actions.
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### 3.3.2 UNGC

#### 3.3.2.1 | HUMAN RIGHTS

##### Principle 1

Businesses should support and respect the protection of internationally proclaimed human rights

1.3.1	Our commitments and policies	17
1.3.2	Our material topics	19
1.3.4	Contributing to the UN SDGs	22
2.4	Our people: prioritising workplace health and safety (SHE) and fairness	70
2.5	People in our value chain: safeguarding conditions and human right	83
2.6	People in our communities: respecting and supporting local communities	86

##### Principle 2

Businesses should make sure they are not complicit in human rights abuses

1.3.1	Our commitments and policies	17
2.4	Our people: prioritising workplace health and safety (SHE) and fairness	70
2.5	People in our value chain: safeguarding conditions and human rights	83
2.6	People in our communities: respecting and supporting local communities	86

#### 3.3.2.2 | LABOUR

##### Principle 3

Businesses should support and respect the protection of internationally proclaimed human rights

1.3.1	Our commitments and policies	17
2.4	Our people: prioritising workplace health and safety (SHE) and fairness	70
2.5	People in our value chain: safeguarding conditions and human right	83

##### Principle 4

Businesses should uphold the elimination of all forms of forced and compulsory labour

1.3.1	Our commitments and policies	17
2.5	People in our value chain: safeguarding conditions and human right	83
2.5.1	Modern slavery and people trafficking in the supply chain	84
2.7	Governance: maintaining the highest standards of ethics and compliance	90

##### Principle 5

Businesses should uphold the effective abolition of child labour

1.3.1	Our commitments and policies	17
2.5	People in our value chain: safeguarding conditions and human right	83
2.5.1	Modern slavery and people trafficking in the supply chain	84
2.7	Governance: maintaining the highest standards of ethics and compliance	90

#### 3.3.2.3 | ENVIRONMENT

##### Principle 6

Businesses should uphold the elimination of discrimination in respect of employment and occupation

1.3.1	Our commitments and policies	17
2.4	Our people: prioritising workplace health and safety (SHE) and fairness	70
2.4.3	Diversity, inclusion, and equality	80

##### Principle 7

Businesses should support a precautionary approach to environmental challenges

1.3.1	Our commitments and policies	17
2.1	Climate change: advancing the transition to net zero economy in our industry	30
2.2	Circular economy: maximising resource efficiency and eliminating waste	46
2.3	Zero pollution: driving progress towards sustainable chemical value chains	61

##### Principle 9

Businesses should encourage the development and diffusion of environmentally friendly technologies

2.1	Climate change: advancing the transition to net zero economy in our industry	30
2.1.4	Our roadmaps and targets	37
2.1.5	Emission reductions in the supply chain	44
2.2	Circular economy: maximising resource efficiency and eliminating waste	46
2.2.3.1	Plastics recycling	55
2.2.3.2	Bio-based and circular products	58
2.3	Zero pollution: driving progress towards sustainable chemical value chains	61

##### Principle 8

Businesses should undertake initiatives to promote greater environmental responsibility

1.3.	INEOS and sustainability	16
2.1	Climate change: advancing the transition to net zero economy in our industry	30
2.2	Circular economy: maximising resource efficiency and eliminating waste	46
2.3	Zero pollution: driving progress towards sustainable chemical value chains	61

#### 3.3.2.4 | ANTI-CORRUPTION

##### Principle 10

Businesses should work against corruption in all its forms, including extortion and bribery

2.7	Governance: maintaining the highest standards of ethics and compliance	90
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