



2023 Sustainability Progress Report



Building a stronger future

Geir Tuft, INEOS Inovyn CEO



2023 was a **story of two halves** for our business.

It started with momentum and a continuation of strong 2022 performance but was followed by a cyclical downturn across our industry, which saw margins rapidly erode and **demand for products fall to unprecedented low levels**.

Driven by higher interest rates and spiralling inflation, domestic European PVC demand reduced significantly while imports doubled. As a result, European producer operating run rates are now 20% lower.

Our industry needs to **address the competitiveness gap** with US and Asia, caused by high energy costs, access to raw material and a challenging regulatory landscape. To achieve the sustainable goals set forward by Europe, a strong and healthy European industry is required, that can shoulder the needed investments.

Continued investments in this transition will require regulators to develop a **global level playing field**.

Against this context we delivered resilient results and improved our safety record. INEOS Inovyn remains committed towards our sustainability goals and I am pleased to see us making good progress. Milestones include:

- Becoming Europe's first green hydrogen ISCC PLUS fully certificated producer
- Expanding our PVC product range by offering new solutions for carbon neutrality and circularity
- Advancing Project Circle which will strengthen Europe's PVC recycling

- Developing renewable energy access through green power deals in Norway and Belgium.

To drive long-term efficiencies and create a more sustainable business we also launched project FIT, which is helping us reduce our fixed costs, strengthen our organisation and secure jobs for the future. **Project FIT plays a vital role** in compensating for some of the lost competitiveness and will require a mindset shift across INEOS Inovyn.

Challenges bring us together and through mobilising our **core principles of grit, rigour and humour**, we will weather the storm and come through this stronger.

INEOS

26,000

Employees

204

Sites

\$65bn

Sales in 2022

66M Tonnes

Chemicals capacity in 2022

INEOS Inovyn

4,221

Employees

15

Sites

€3.5bn

Revenue

8.6M Tonnes

Production volume

Safety is our
priority #1

European leader
in PVC & Chlor Alkali

Global leader
in Specialty PVC

Resilience in turbulent times

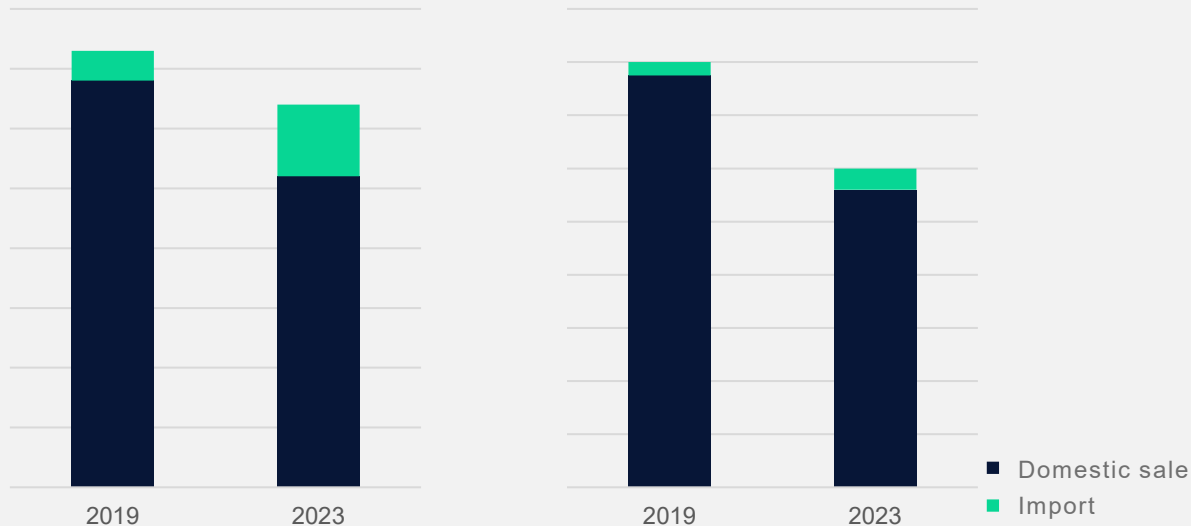
The need for a level playing field



European demand evolution

General Purpose PVC

Liquid Caustic Soda



- 2023 was characterised by unprecedented market conditions
 - GP PVC demand reduced by circa 15%
 - Imports of PVC resin doubled - predominantly from the US,
 - Circa 25% reduction in the effective market for European PVC and Caustic Soda producers - which is unsustainable
- Our industry is facing a competitiveness gap with the US and Asia, driven by high energy and raw material costs. INEOS Inovyn has been working with the EU commission and UK Trade Remedies Authority to look at imposing anti-dumping measures on US resin imports
- The regulatory landscape in Europe is changing rapidly, putting more requirements on EU producers, which are not consistently enforced on imported materials
- Collaboration with our stakeholders, including regulators, will be required to create a global level playing field that justifies continued investments in Europe
- Despite the economic headwinds, INEOS Inovyn delivered resilient results and are committed towards our sustainability goals.

2023 highlights and 2024 outlook

Despite tough markets we continue making strong progress

Strong safety performance

- Significant reduction of incident rate for contractors, reflected in [OSHA recordable rate](#)
- [SHE&OCS day](#) for hauliers across our European sites

- **OUTLOOK:** Safety remains our number 1 priority

Reducing carbon footprint

- Development of 90,000-panel [solar farm](#) in Belgium
- New long-term [Norwegian power](#) agreements
- Progress with [Mechanical Vapor recompression](#) for salt plant in Tavaux
- [Energy efficiency](#) improvements
- Strengthening our [hydrogen business](#) - demonstrating novel alkali water electrolysis in Runcorn

- **OUTLOOK:** Progress critical projects like [Aquarius](#), [Electra](#), and HyBay treatment & compression plant

Strengthening PVC recycling

- Addressing PVC waste that cannot be mechanically recycled – [Project Circle](#)
 - Technology development
 - Launch of 2 new consortia to accelerate the development of the dissolution technology

- **OUTLOOK:** Progress Project Circle to address PVC waste that cannot be mechanically recycled

Products and people

- [NEOVYN™](#), a low carbon solution
- [RECOVYN™](#), containing 100% recycled carbon content
- Europe's first fully ISCC PLUS certificated [renewable energy derived hydrogen](#) producer
- [Gender equality](#) certification - Rosignano
- [Health & Safety award](#) for Runcorn

- **OUTLOOK:** Launch [Ultra Low Carbon Chlor alkali](#). Launch and deploy our new people strategy

Pillar 1: Responsible Production



Pillar 2: Carbon Neutrality



Pillar 3: Circularity



Pillar 4: Value to Society



Our products are indispensable

Everyday use and essential to modern life

General Purpose (GP) PVC

- A versatile polymer essential in construction for pipes, windows and flooring.
- Its applications extend to healthcare equipment, packaging and electrical insulation.
- Contributes significantly to sustainability efforts through its durability, recyclability and energy efficiency.



Specialty (SP) PVC

- Crucial in manufacturing high-performance products like medical devices, automotive interiors and specialty films.
- Its chemical resistance and durability make it indispensable in harsh environments.
- SP-PVC innovation drives advancements in renewable energy, aerospace and electronics.



Chlor-Alkali

- Sodium hydroxide is fundamental to produce water treatment chemicals, hygiene products, food preservation and insulation and construction materials. It is used in the extraction of metals for batteries and their recycling process.
- Potassium hydroxide is used as a fertilizer or as food and feed ingredient.
- Chlorine derivatives serve diverse industries, from pharmaceuticals to automotive and renewable energy.



Hydrogen

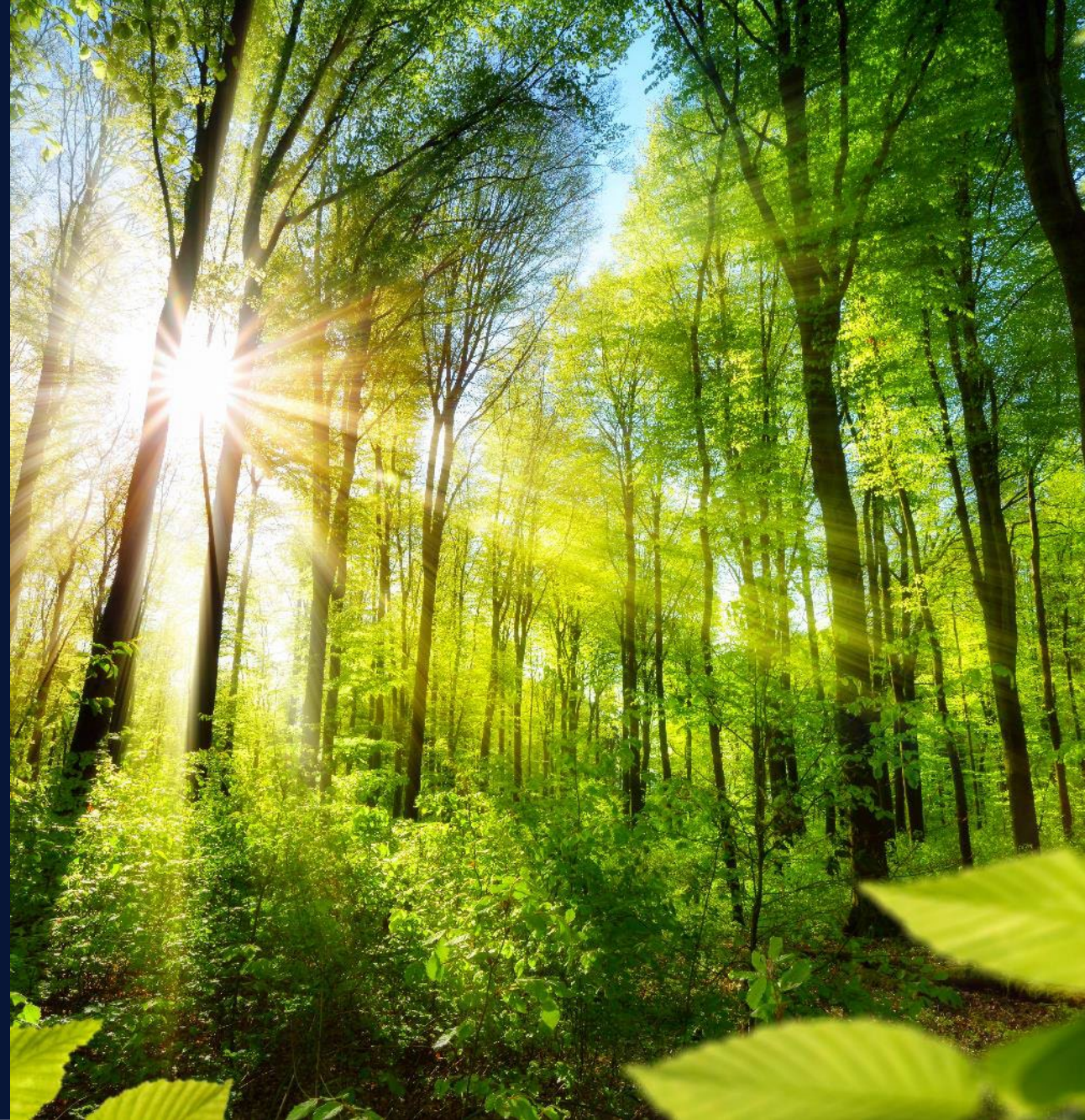
- Plays a crucial role in decarbonizing existing chemical value chains including ammonia and methanol, whilst being a key enabler to reduce emissions coming from the transport market of the future.
- Our hydrogen business contributes to the climate transition by kick-starting the market and demonstrating the required technologies at an industrial scale.



Chlorovinyl industry is on a sustainable path

Our industry has transformed over the past decade, focusing on process safety and proactively implementing new regulatory measures to ensure manufacturing is safe for people and the environment.

- PVC production in Europe is well controlled, as recognised in a recent ECHA investigation report on PVC and its additives
- Salt as the main raw material for the industry; PVC resin has a low carbon content of 43%
- Circularity is embedded; >8M tonnes of PVC waste recycled since 2000 in Europe.



EU Chlorovinyls industry faces critical challenges

Eroding the competitive position of EU producers

- In recent years, EU energy and feedstock prices have risen to unsustainable levels, impacting the competitive position of EU producers. This has led to PVC resins being dumped from outside Europe into local markets – an increase of around 80% between 2019 and 2023
- Regulators are now acting - the EU commission and UK Trade Remedies Authority are reviewing imposing anti-dumping measures on US resin imports
- We have also seen a sharp increase, 50% up from pre-COVID levels, of finished PVC import goods. These imported products are subject to lower regulatory scrutiny and not always adhering to European product safety standards



80% up

PVC resin import
(350-625 KT)

50% up

PVC finished goods import
(320-490 KT)

20% down

EU PVC industry
production level

A call for a global level playing field

That drives sustainable manufacturing, use and end of life of our products forward

- Ensure Europe's petrochemical and plastics industries remain **globally competitive**
- Improve the availability of competitively priced low carbon **energy** and support the market development for low carbon hydrogen through legislation and investment incentives
- Help unlock **industry investments** with appropriate support (CAPEX, OPEX and fiscal level) to accelerate sustainable development e.g. Inflation Reduction Act
- Foster demand for more circular material with **circular plastic content targets** per applications is also essential to justify the investment needed
- We need a **level playing field** for imports of Chlorovinyls and finished goods - that are enforceable at the border
- Providing a stable and predictable **regulatory environment** - avoid over regulation and administration.

“

This is the last chance to stop Europe from sleepwalking into off-shoring its industry, jobs, investments and emissions.

Sir Jim Ratcliffe, Chairman and Founder of INEOS.
2024 Antwerp Declaration for a European Industrial Deal

Our sustainability pillars

We recognise our responsibility to accelerate the pace of sustainability in our industry

1 

Responsible production:

Striving for zero incidents and taking an industry-leading approach on the health of our employees, partners involved in the value chain and our impact on the environment.

2 

Carbon neutrality:

Accelerating the transition to a Net Zero carbon economy.

3 

Circularity:

Advancing circular solutions to maximise efficient use of resources and ensure the long-term value of our products.

4 

Value to society:

Products: Ensuring that our products continue to bring significant value to society.

People: Ensuring that our employees are valued and INEOS Inovyn plays a positive impact on society and the communities in which we operate.



Safety our #1 priority

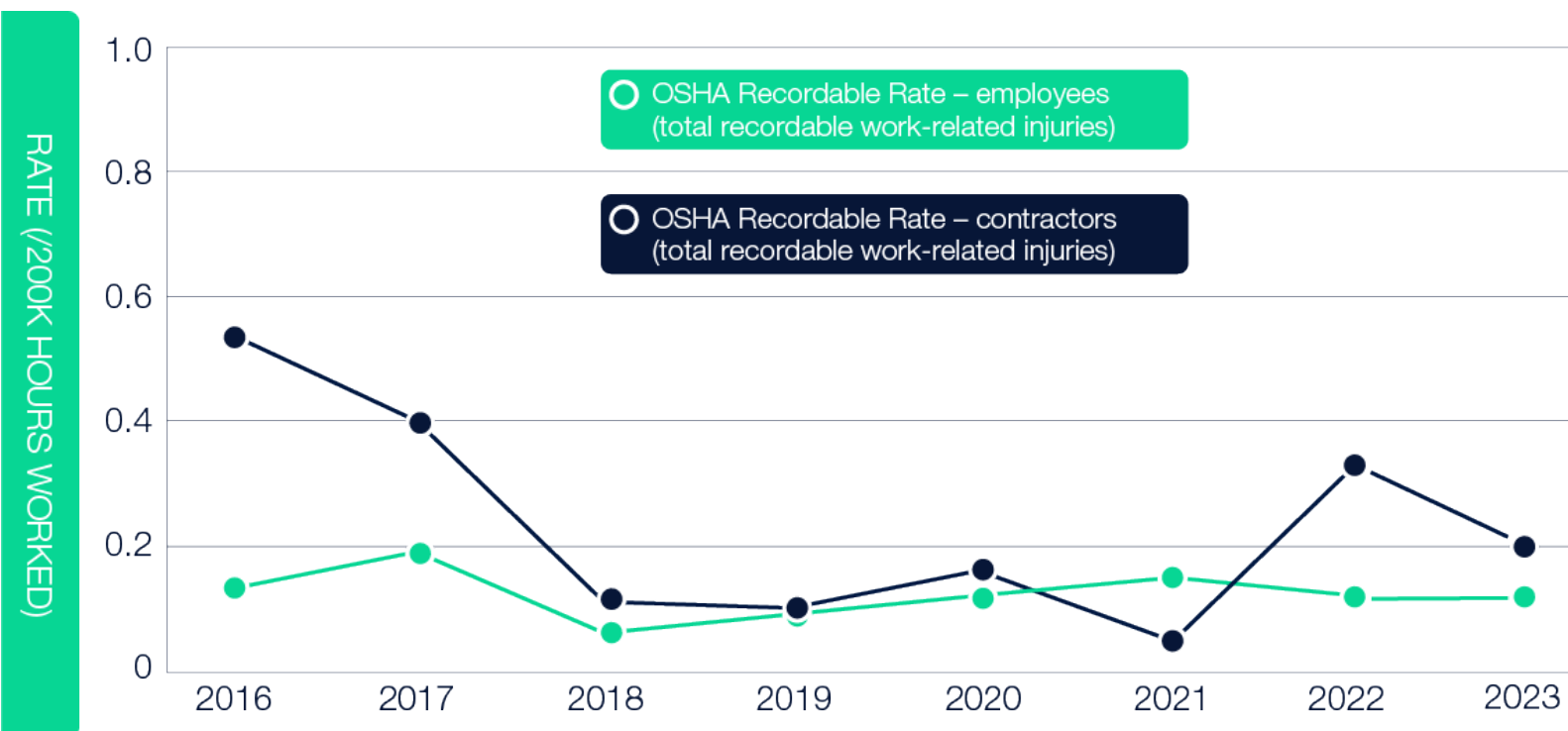
- Following the 2022 increase in contractor **OSHA** recordables, we have seen this **decrease significantly**. Our employee rate has remained identical to last year's at 0.12/ 200,000 hours worked, cementing our industry leading approach to safety
- **Spillages & LOC10s*** **reduced drastically** since the launch of our spillage taskforce; OCS** is now part and parcel of our approach to PVC manufacturing
- Successfully launched of our **first SHE & OCS day** with hauliers, across 6 sites and 8 languages; reinforcing that safety extends beyond factory gates
- Our **Safety Awareness Programme** and pre-delivery inspections are continually expanding and improving

* Loss of Containment ** Operation Clean Sweep





Safety performance



OSHA
Recordable Rate
per 200,000 hours

Safety is our utmost priority.

Our approach is grounded in our

7 life-saving rules &
20 safety principles

SHE & OCS day

Safety awareness beyond INEOS Inovyn

- SHE & OCS trainings for **hauliers and contractors** have been organised across our sites
- The training was **proactive** and based around the idea of **open dialogue**; it covered INEOS Inovyn policies coupled with questionnaires and suggestions on **how to best improve on safety equipment, procedures and eliminate spillages**.
- **Operation Clean Sweep®** is at the core of our approach to **reducing spillages and minimising plastic pellet and powder loss**. All sites are prepared for external audits during Q3 2024.



* Safety Health Environment | ** Operation Clean Sweep

September -
October 2023



6 sites

8 languages

8 SHE* & OCS** days

129 people trained

Responsible production through the eyes of our people



The most important thing for us at INEOS Inovyn is to make sure that our people working in the plants return home safely, every day.

Safety, Health and Environment are our top priorities and our most important value.

Our commitment to health and safety is visible through the whole organisation and is equally important for employees and contractors.

Øystein Furuvald Palmgren
Health & Safety Manager



Our aim is to operate all our manufacturing processes in full compliance with both national and European legislation. We strive to continuously reduce emissions of pollutants to soil, air and water to ensure we avoid harm to human health and the natural environment. We also minimise our impact through reducing waste and use of water by manufacturing our products as responsible as possible.

Our commitment to Operation Clean Sweep (OCS) program is one of our top priorities. We are implementing adequate measures and procedures to avoid microplastics losses to the environment. We are now looking forward to the voluntary OCS certification planned in 2024 !

Mar Vila
Quality, Environment and Laboratory Manager, Martorell

We have committed to reduce our carbon emissions by

33%

by 2030

Carbon Neutrality Roadmap

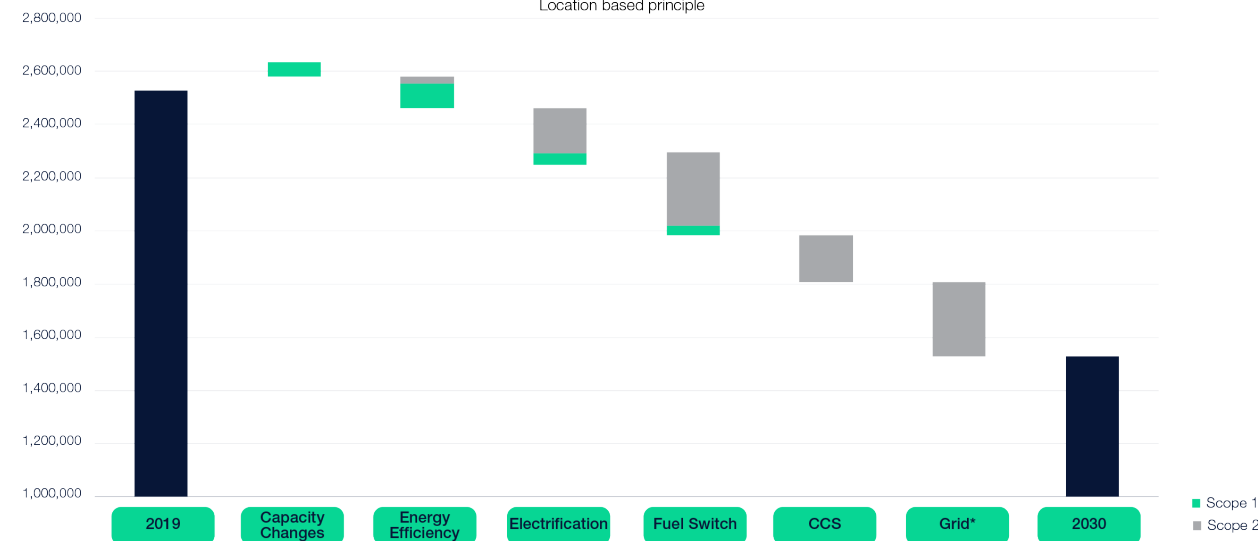
By 2030, we aim to reduce our GHG emissions by 33% compared to 2019 levels, with a goal of achieving Net Zero by 2050.

Achieving these targets will come from a mix of technologies and solutions; some existing and some requiring significant R&D. By harnessing innovative and sustainable solutions, we can navigate a path to Net Zero whilst maintaining profitability and staying ahead of regulation.

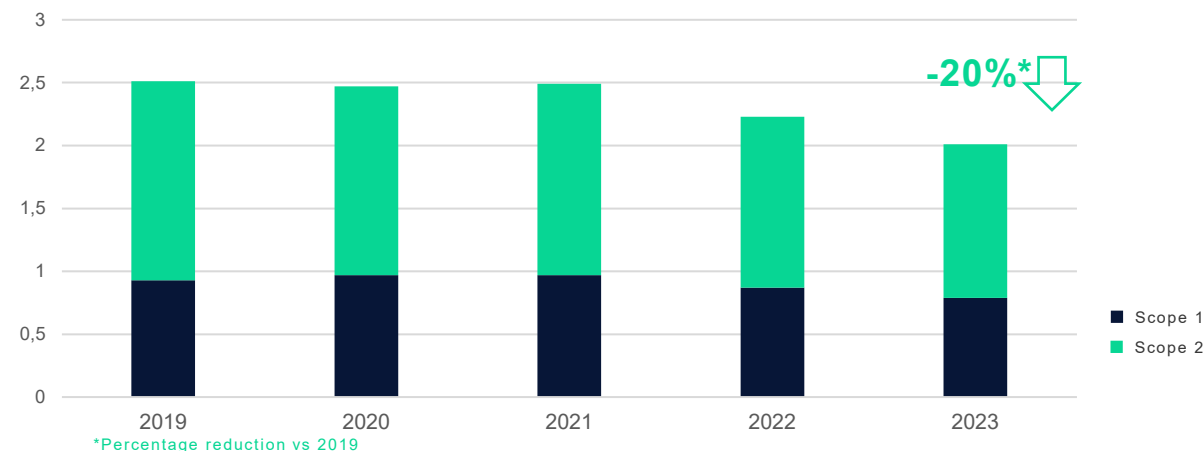
In 2023, we reduced our GHG emissions by 11% compared to 2022 and 20% compared to 2019. Implementing energy efficiency projects and access to greener grids fuelled these reductions. But a significant part of the reduction is due to lower production in our assets. Compared to 2019, production reduced with 16%.

Road map for CO₂ reduction

Location based principle



*Greening of the national grids in the countries in which we operate



— Helios solar farm

INEOS Inovyn invests in 90,000 panel solar farm to significantly cut its CO₂ emissions in Belgium



- The facility is the size of 56 football pitches and will supply 10% of INEOS Inovyn's electricity site demand from 2024
- The investment is part of INEOS Inovyn's wider plans towards Net Zero 2050 and will save 14,000 tonnes of CO₂ per year, equivalent to the annual consumption of 16,000 Belgium households
- At 60MW it will be one of Belgium's largest solar farms.

Statkraft PPA*



2 Long-term renewable power supply deals for our Norwegian sites

- Capacity of 100MW as of May 2023 and an additional capacity of up to 30MW in the coming years, corresponding to 876 GWh and 263 GWh respectively.
The power supply will come exclusively from renewable sources.



Complementing our low carbon product portfolio

- Ensuring we have access to green power for our new products launched, such as NEOVYN™
- Enabling access to renewable power, complementing future electrification and green H₂ projects.

* Power Purchase Agreement

Tavaux plant MVR

Mechanical Vapour Recompression unit to decarbonise our solid salt process

- INEOS Inovyn produces more than one million tonnes a year of essential chemicals through the electrolysis of brine at Tavaux site, supplying raw materials for a wide range of essential applications including PVC for blood bags, medical equipment and personal protective equipment
- The planned investment will deliver a major improvement in the energy efficiency of the Tavaux operations by converting its brine concentration process to run on steam produced from electricity rather than gas. This will ultimately deliver a reduction in primary energy consumption of over 200 GWh and a reduction in CO₂ emissions in excess of 60,000 tonnes per year, equivalent to 40,000 European cars being taken off the road.




Energy efficiency in our assets

Examples in Rheinberg plant

- PVC Drier Upgrade - Completed and commissioned in 2023
 - During the process of PVC drying, hot water is generated from the centrifuges in the first steps. In a second step, hot air is used to remove the final water content from the PVC powder in fluidised bed dryers
 - In 2023, air pre-heaters were installed to preheat the incoming ambient air, using the residual heat of the hot water from the centrifuge. This results in a reduction of the specific steam consumption of **2417 MWh/a**, corresponding to **826 tCO₂/a**.
- ECU optimisation
 - During the re-membraning of the electrolyzers, more energy efficient membranes and electrolysis elements were installed
 - This results in a reduction of the specific power consumption of the cellrooms and leads to **4,200 MWh/a** electricity savings, corresponding to **1,600 tCO₂/a**.





As INEOS Inovyn, we have the capacity to produce **60kt** of hydrogen per year.

Project Aquarius in Rafnes: Potential to reduce emissions by **22kt CO₂eq** per year once operational.

Hydrogen

- Current economic climate is difficult for investment. INEOS has an unwavering commitment to green and low-carbon H₂ projects, but at a pace that matches market conditions. Focus remains on utilising our Ultra Low Carbon Chlor-Alkali hydrogen to bridge the initial demand for the mobility market
- In the UK, INEOS Inovyn is part of the HyNet key strategic hydrogen project. Our involvement will enable the storage of H₂ in our salt caverns in Northwich, North West England
- INEOS Inovyn have successfully certified chlor-alkali hydrogen in Lillo and Rafnes as renewable energy derived under the ISCC PLUS scheme. We are the first producer in Europe to have its required greenhouse gas data fully audited, providing added value to customers by enabling the traceability of sustainable materials along supply chains
- INEOS Electrochemical Solutions have developed a state-of-the-art alkaline water electrolyser, with supply chain capability and expertise to rapidly develop industrial scale production.

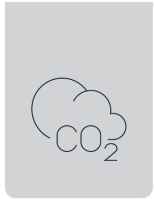
Alkaline Water Electrolyser

State of the art technology

- Utilising our years of electrolyser development, supply and operation in the chlor-alkali industry
- Deployed at full scale a **~0.5MW Alkaline Water Electrolyzer (AWE) demo unit**
 - Modular electrolyser concept based on BICHLOR
 - Extensive lab testing on coatings, separators and conditions
 - Manufactured using existing supply partners
- Ready to scale-up for commercial projects.

IES: Inovyn Electrochemical Solutions





Hydrogen projects

Hydrogen as a crucial low carbon energy carrier for the future

HyNet H₂ storage project



This facility is set to accommodate 1.3TWh of energy, equivalent to 35KT of hydrogen.

HyBay H₂ treatment plant



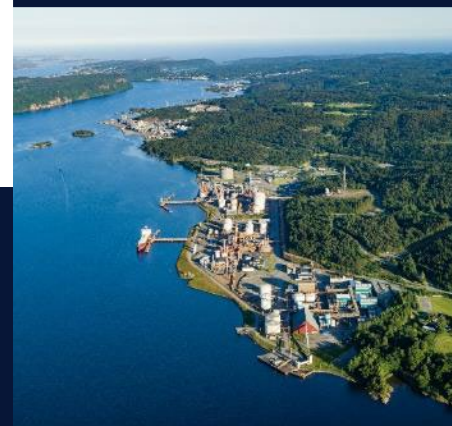
HyBay is our new treatment and compression facility in Runcorn, slated for a 2025 startup.

Antwerp H₂ boiler



Construction of an on-site hydrogen boiler fuelled by co-produced hydrogen originating from the Lillo ECU.

Aquarius H₂ electrolyser



This 20 MW water electrolyser project aims to fuel a VCM unit, resulting in substantial emission reductions.

ChemCH₂ange project



This initiative, led by INEOS O&P North, centres on constructing a 100 MW water electrolyser at the INEOS Köln site in Germany.

[More about these projects](#)

Project Electra

- Developing world first technology to electrify EDC cracking process and harness renewable electricity in Rafnes
- Renewable electricity will be displacing the need for fuel gas in the EDC-cracker and reduce scope 1 emissions
- Net zero solution for VCM production
- Potential adoption across other sites



Fuel switch to electricity
creates a reduction of **21kt**
CO₂eq per year, once
operational

Carbon neutrality through the eyes of our people



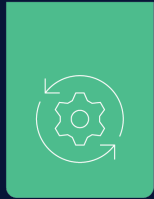
Constructing a new market entails risks and assumptions about demand. The markets for green and blue hydrogen are expanding at a slower pace than initially expected. Hence, we will vigilantly observe the progress and adjust our investments accordingly, focusing on opportune moments and locations. Legislations, along with local and EU authorities, can assist by offering appropriate incentives to mitigate risks associated with this process and stimulate demand.

Wouter Bleukx
GP Vinyls & Hydrogen Manager



Making progress on the decarbonisation roadmap is one of the key challenges society expects from us. In the Manufacturing Excellence team, my role is to coordinate progress towards our carbon roadmap with the different production sites. Challenging times like these make my role even more interesting!

Harry Brentnall
Manufacturing Excellence Sustainability Specialist

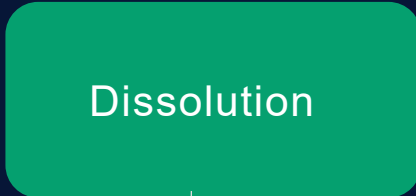
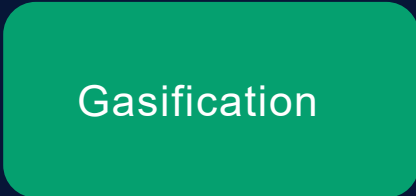
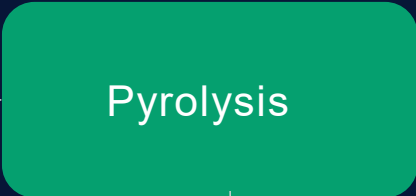


Project Circle: advancing chemical recycling

- About 27% of PVC waste generated in Europe is currently recycled, mainly through mechanical recycling, putting PVC recycling ahead of the curve compared to other polymers. Progress is tracked through VinylPlus.
- In order to address the remaining PVC waste that cannot be mechanically recycled, we have launched Project Circle. The aim of Project Circle is to close the loop for the full PVC value chain.
- Besides recovering the carbon from PVC, we also want to ensure the recycling of Chlorine (in the form of HCl) as well as extracting additives used in PVC products. This will allow us to grow recycled material into our product offering.
- The target is to make all PVC recyclable and to accelerate the development of the circular economy. To ensure both are achieved, the demand for circular products must be incentivised. A regulatory framework that enforces the inclusion of recycled content and funding support to drive the required investments will be key to reach the full potential of the circular economy.

This ambitious venture aims to process

40,000 tonnes of PVC waste
each year by 2030.



Technology

Next generation recycling pilot plants launched - to strengthen Europe's PVC recycling

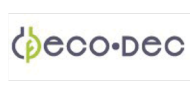
Dissolution technology development

- INEOS Inovyn launched two new PVC pilot plants at our Jemeppe-sur-Sambre site in Belgium, to accelerate technologies for recycling PVC articles which are not mechanically recyclable today.
- Forms part of the Project Circle initiative, which aims to commission an industrial unit with 40KT recyclable capacity by 2030



Project Circle requires collaboration

- To strengthen our technical and commercial development, INEOS Inovyn is part of two value chain consortiums supported by the Walloon and Flemish authorities.
 - The first 'CIRC-PVC' covers the entire chain, from collecting PVC waste to the production of rejuvenated PVC not containing legacy additives.
 - The second consortium 'DISSOLV' will drive the development for PVC waste from flooring, carpets and tarpaulin applications which cannot be recycled today, due to the presence of textile fibres and legacy additives.



Circularity through the eyes of our people



Today, there is no turnkey technology to recycle PVC waste that can't be recycled mechanically, like composites and PVC containing legacy additives. Project Circle is about the development of advanced recycling technologies enabling a first industrial unit by 2030.

I'm putting my experience to boost the advanced recycling of PVC. Leading Project Circle is leading the PVC industry on the next step in its circular journey.

Eric Romers
Head of Project Circle



I managed the design and installation of 2 new pilot plants to be used for the CIRC-PVC and DISSOLV consortiums.

Both pilot plants are in operation enabling the confirmation of our successful lab results on the extraction of legacy additives from rigid and flexible PVC waste.

It's a pleasure to work as a team member on the upscaling of our Vinyloop-D technology development.

Corentin Dubois
PVC Recycling R&D Scientist



New sustainable portfolio

Providing sustainable solutions through innovation

- Our fossil-based PVC and Chlor-Alkali product ranges already have a significantly lower carbon footprint than the average in the European chlorovinyls industry. Our Environmental Product Declarations (EPDs) are certifying these savings transparently.
- In 2023, we launched NEOVYN™. Combining access to renewable energy, green H₂ from water electrolyzers and our developments in electrification technology, allows us to offer PVC grades that have a 37% lower carbon footprint than industry average.
- This complements our existing certified renewable products, BIOVYN™ and REODRIN™, which have been available for the past few years. With the launch of the ultra-low carbon Chlor-Alkali product range in January 2024, we are further leveraging our structural access to low carbon energy.
- Our low carbon product ranges enables our customers to have access to products with the product carbon footprints that are expected in 2030 and 2050. Through the launch of RECOVYN™ we also offer PVC made from 100% recycled ethylene.
- INEOS Inovyn also launched the first ISCC PLUS certified renewable hydrogen.
- To ensure the uptake of low carbon and recycled products is further accelerated, a predictable and robust regulatory framework will be needed. This ranges from ensuring recycled content targets are endorsed, to developing a mass balance approach that incentivises the development of the market for sustainable products.

biovyn

neovyn

recovyn

recodrin

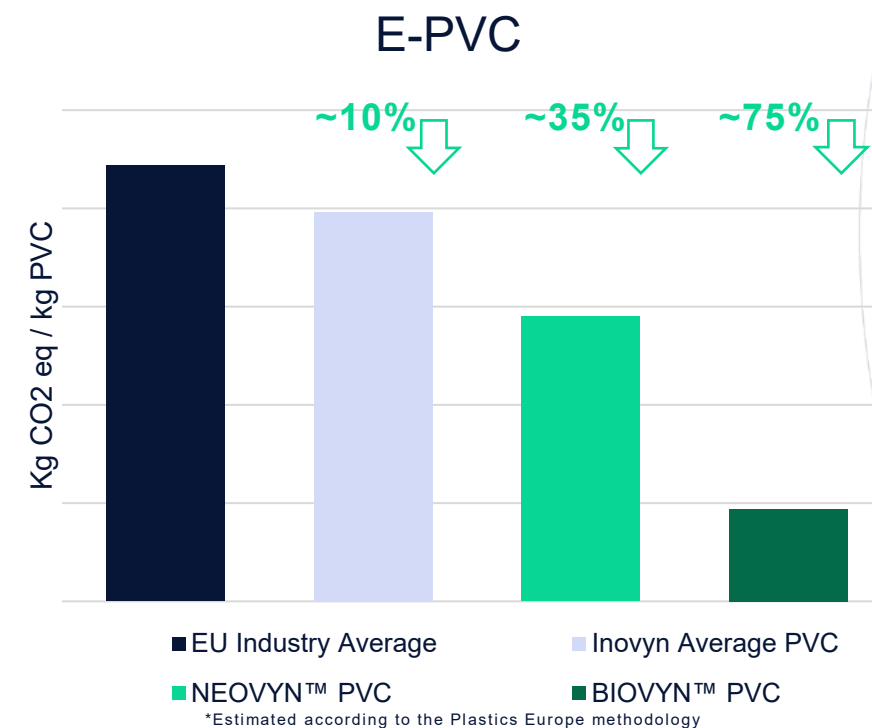
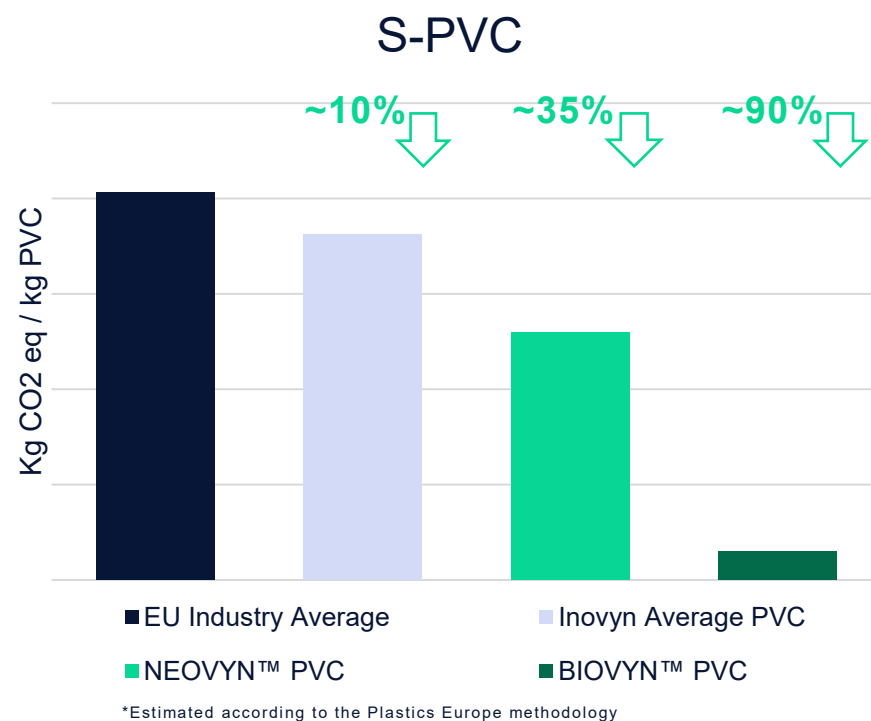
ULC
Chlor-Alkali

INEOS
Hydrogen



Low carbon PVC portfolio

GHG Savings through the use of bio-circular feedstock & renewable energy





Circular PVC portfolio

Incorporating recycled content in our product range

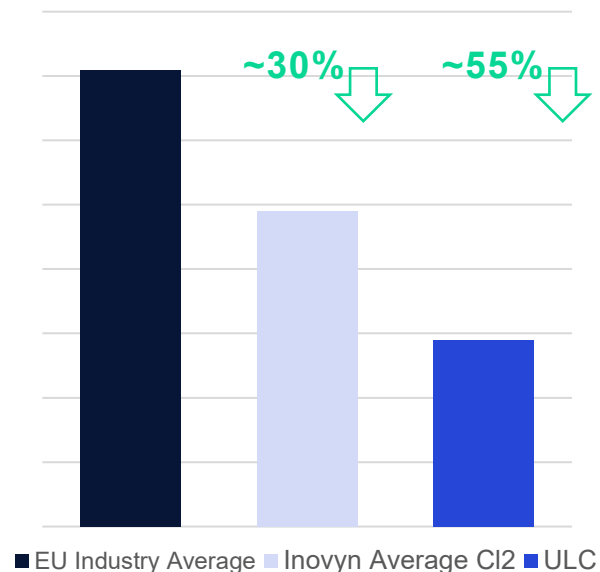
- RECOVYN™ was launched in 2023, using 100% recycled ethylene as feedstock, made available through INEOS O&P.
- **Looking forward:** through our technology development in advanced recycling, we aspire to grow the recycling of both carbon and chlorine of PVC and close the loop. Project Circle is our vehicle to achieve this with the first industrial unit expected by 2030. This will be complementary to recycled ethylene from other mixed plastic waste.
- Growing the market for RECOVYN™ will also depend on the uptake by customers, through voluntary commitments, or incentivised through recycled content targets set by the regulators in various end applications.



ULC CA portfolio

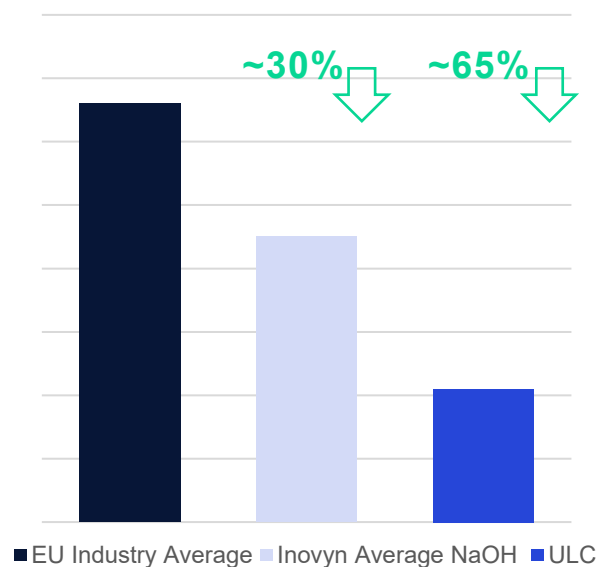
GHG Savings through the use of renewable energy

Cl₂ GWP
(in kg CO₂ eq/kg Cl₂)



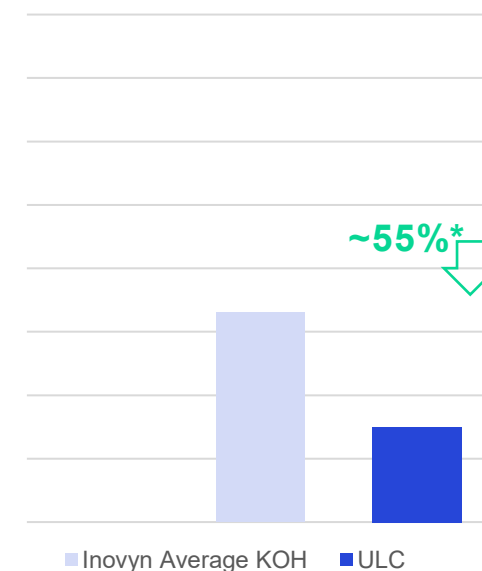
*Estimated according to the Euro Chlor methodology

NaOH GWP
(in kg CO₂ eq/kg NaOH)



*Estimated according to the Euro Chlor methodology

KOH GWP
(in kg CO₂ eq/kg KOH)



No industry benchmark available. Comparison with our standard KOH, according to Euro Chlor methodology

Our low carbon products in use

Building on the success of BIOVYN™ - ISCC-Plus certified REODRIN™ is being used across a range of diverse carbon abating applications

- Rossignol's new Essential ski line benefits from a low carbon footprint through ARALDITE® Mass Balance Certified epoxy resin produced by Huntsman using REODRIN™
- "ISCC-Plus certified REODRIN™ brings about a 70% reduction in GHG emissions compared to fossil based equivalent. As the world's first bio-attributed epichlorohydrin, REODRIN™, combines its greenhouse gas savings with significant reduction of water intake, land use and overall ecological impact of production," comments Pedro Moura Pinto, Business Unit Manager Allylics at INEOS Inovyn



Backing up our sustainable credentials



Our sustainability claims are backed by 3rd party verified EPD's or ISCC PLUS and RSB certifications. In 2023, we expanded our certifications portfolio to include ISCC PLUS-certified renewable energy derived hydrogen, Chlor-Alkali products and our latest generation of low carbon PVC products.

BIOVYN™: ISCC PLUS and RSB certified in Jemeppe, Tavaux, Porsgrunn, Rheinberg and Stenungsund.

NEOVYN™: Produced the first ISCC PLUS certified NEOVYN™ in Newton Aycliffe, expecting to grow our offering in different sites.

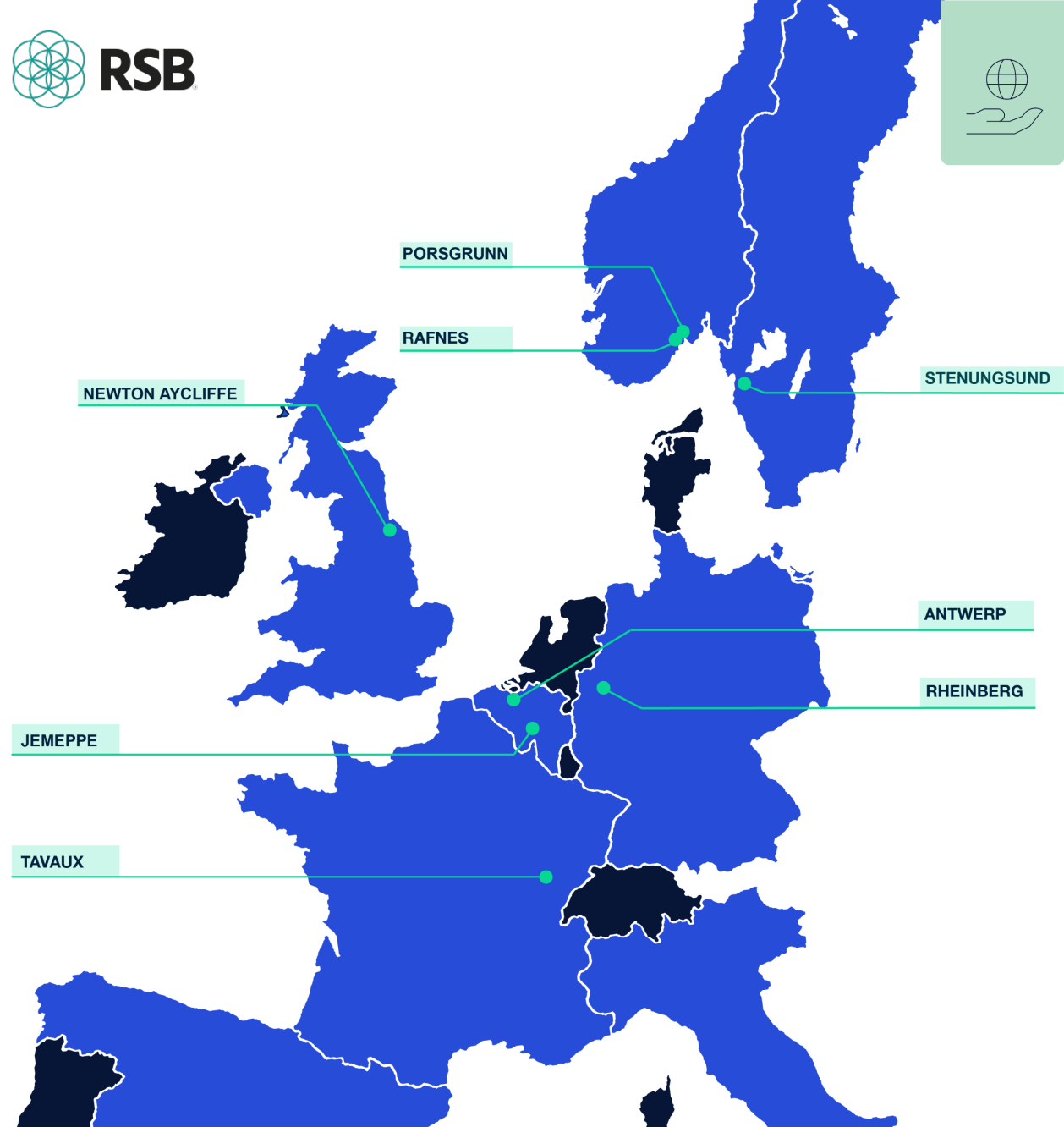
RECOVYN™ : ISCC PLUS certified in Jemeppe, Tavaux, Porsgrunn, Rheinberg and Stenungsund.

ULC Chlor-Alkali: Completed the first ISCC PLUS certification at Antwerp and Rafnes.

Renewable Hydrogen: Completed the first ISCC PLUS certification at Antwerp and Rafnes.

REODRIN™ : ISCC PLUS certified in Tavaux.

Conventional: 3rd party verified Environmental product declarations (EPD) have been developed for all of our major fossil products.



Sustainability products through the eyes of our people



In 2023, I had the honour to develop the new company's sustainability awareness program. This initiative was vital to further educate our salesforce on our sustainability strategy and provide the right tools to engage with our customers, as these also want to engage more on sustainability.

Our commercial teams now feel more confident when they discuss with our customers on our long-term investment plans which enables better understanding why sustainable solutions come with a premium.

Arina Hauge
Sales Manager GP & SP Vinyls – Nordic region



Our customers are looking more and more to us as a key supplier, to help provide low carbon footprint products. With the launch of NEOVYN™, we can provide the 2030 Carbon footprint of PVC already today.

Being the first to sell this newly launched product in the UK market was a key milestone for us at INEOS Inovyn and for me personally.

Brian Cosgrove
Area Sales Manager UK & Nordics

Rosignano plant to achieve certification under UNI/PDR 125:2022 Gender Equality

- The Company was recognised for its overall management system for gender equality, which includes key performance indicators to measure, report and evaluate the gender profile of its operations with the aim of bridging existing gaps and producing sustainable, lasting change towards an inclusive and gender-equal organisation.
- Certification covers strategic areas such as culture and strategy; governance; HR processes; opportunities for growth and the inclusion of women in business; gender pay equity; parental protection; and work-life balance.
- **Erika Alcamisi**, Chloromethanes Plant Manager: “we have a strong meritocratic culture that ensures people are assessed fully on the basis of their skills and competencies”. **Antonella Bianchi**, Chlor-alkali R&D Manager adds: “this certification is perfectly in line with the vision and values of INEOS, where we have equal opportunities for all and where we act with integrity and respect for everyone regardless of gender or role in the organisation.”





Runcorn Site winner of the Chemicals Northwest Health & Safety Award for its 'Walk in Safety' initiative

- Perceptual blindness occurs when someone fails to perceive a potential hazard that is in plain sight, purely because of a lack of attention rather than any problem with eyesight. Perceptual blindness can result from being pre-occupied with something else, such as focusing on a conversation with a colleague whilst walking or simply becoming complacent with familiar workplace surroundings.



- Training 900 employees and contractors, walking small groups through special scenes created to contain various hazards. Individuals were encouraged to spot and 'call out' what they saw. The aim is to increase focus and attention.
- Since the training, accidents involving slips, trips and falls have halved.
- The next step is to adapt the training for employees working in offices, where there are equal numbers of potential hazards, including texting on a phone whilst walking, reading a report on the way to a meeting, or leaving a filing cabinet draw open.



At INEOS Inovyn, we are enabling and empowering our people to achieve business and personal success.

We are creating a culture that brings us together and demands the best from us.

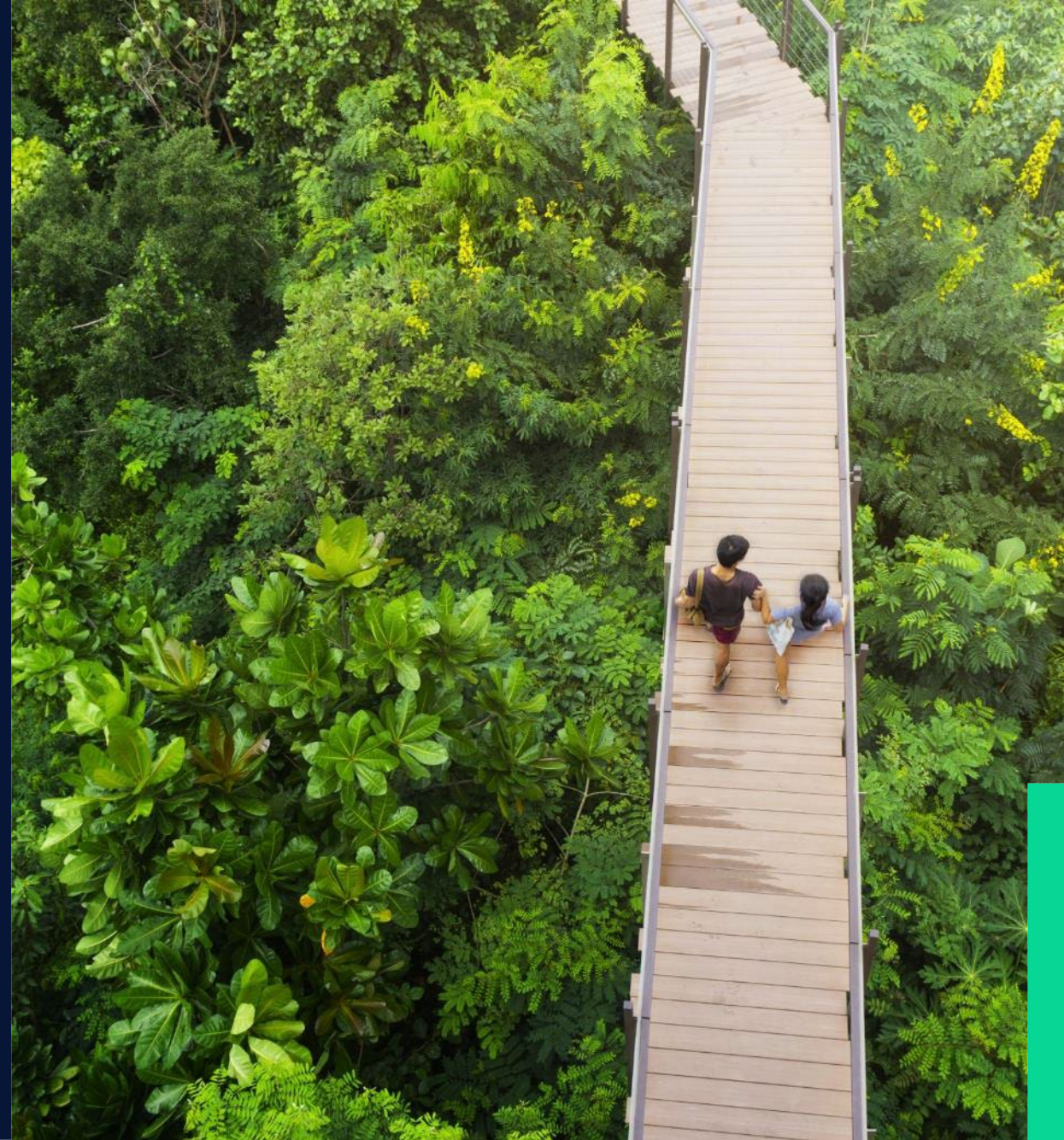
The new people strategy plays a vital role in harnessing our expertise, talents and innovation to build a stronger, more sustainable organisation.

Els Pauwels, Human Resources Director, INEOS Inovyn

2024 Outlook

Anticipating the market bottoming out

- Economic challenges and tough market outlooks will require us to prioritise investments, in order to maintain a competitive, sustainable business. Regardless of these conditions we will continue to:
 - Focus on safety as our number 1 priority
 - Develop Project Circle to address the circularity challenges of PVC waste that cannot be mechanically recycled
 - Strengthen our sustainable portfolio to the Chlor-Alkali business
 - Complete key investments including the Tavaux MVR, project Helios and HyBay treatment & compression plant at our Runcorn site
 - Monitor the development of the European H₂ markets, strategically evaluating the right pace to progress our H₂ projects.
 - Launch and deploy our new people strategy



Facts and figures

	2020*	2021*	2022*	2023
Emissions				
Scope 1 M Metric tonnes CO ₂	0.97	0.97	0.87	0.79
Scope 2 Location	1.50	1.52	1.36	1.22
Scope 1+2 location	2.47	2.48	2.23	2.01
GHG intensity 1+2 location	0.23	0.23	0.24	0.23
Scope 2 Market	2.27	2.19	1.94	1.98
Scope 1+2 Market	3.24	3.16	2.81	2.76
GH intensity 1+2 Market	0.30	0.29	0.31	0.32

* numbers restated to deduct the emissions from exported energy

Energy				
Total energy use - PJ	48.1	50.0	42.3	40.9
Energy use intensity PJ/T p	4.8	4.6	4.6	4.7
Scope 1 - PJ	18.8	21.6	17.5	16.8
Scope 2 - PJ	29.2	32.4	24.8	24.1
Total exported energy - PJ	Not reported	3.9	2.7	3.4

Other air emissions				
NOx (metric tonnes)	977	850	584.32	583.01
SOx (metric tonnes)	51	9	17.24	3.49
VOCs (metric tonnes)	239	315	275.13	293.04
CO (metric tonnes)	269	298	246.00	265.35
PM (metric tonnes)	46	45	55.54	43.84

	2020	2021	2022	2023
Water				
Total water consumption (Mm ³)	19.6*	22.9	19.0	17.8
Total water withdrawal (Mm ³)	268.9*	407.4	388.6	350.4
Total water discharge (Mm ³)	256.8*	384.4	369.6	332.6
Water consumption intensity (m ³ /mt prod)	2	2.1	2.1	2.1

* Under estimation

Waste				
Waste (1000 metric tonnes)	160	178	168	144
Hazardous waste	48	65	60	53
Non-hazardous waste	112	113	108	91
Waste recycled/recovered	NA	81	31	33
Haz waste recycled/recovered	NA	59	17	16
Non-haz waste recycled/recovered	NA	22	14	17
Waste intensity tonne/prod	0.016	0.014	0.018	0.017

	Total FTE	Leaving the business-headcount	New hires-headcount
People			
Total	4221	300	318
<30 years of age	589	78	148
30-50 years of age	1881	88	142
>50 years of age	1751	134	28
Gender: male	3607	260	270
Gender: female	614	40	48

External ESG recognition – INEOS group

- INEOS group 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
- At INEOS, 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 AG statement on reporting

"INEOS publishes a group sustainability report in relation to the legal entity INEOS AG, which is prepared in accordance with GRI standards (GRI 1 Foundation 2021) and assured by KPMG. Our 2023 group report is available on our website: [SR2023](#). As a subsidiary of INEOS AG, INEOS Inovyn is included within the reporting boundary of the INEOS group sustainability report. Nevertheless, INEOS Inovyn chooses to publish an additional complementary report with disaggregated disclosures to provide tailored information to our stakeholders on our footprint and activities.

INEOS gathers sustainability data on a group-wide basis and applies uniform accounting and consolidation methods when preparing disclosures in accordance with INEOS' science-based methods and international standards. As such, the disaggregated figures disclosed in relation to INEOS Inovyn in this report are consistent with the aggregated figures in the assured 2023 INEOS AG report. While INEOS has a federal governance structure, we have group-wide sustainability policies and targets that have been developed through our cross-business networks and ESG committee and sanctioned by INEOS' owners. INEOS Inovyn operates in accordance with these group-wide standards, which are detailed in this report.

Group-wide policies include our Code of Conduct, Supplier Code of Conduct, SHEQ policy, 7 Life-saving Rules, 20 Safety Principles, INEOS Group Guidance Notes and ESG procedures. INEOS' climate targets to reduce operational emissions by 33% by 2030 (compared to 2019) and reach net-zero emissions by 2050 also apply at group level, as do our 2025 and 2030 polymer pledges. INEOS businesses have their own site roadmaps to contribute to group-wide climate targets and are free to adopt complementary additional sustainability policies and targets. INEOS Inovyn uses a location based roadmap in this report, while reporting both market and location based results. For the contribution of INEOS Inovyn to the INEOS group targets and roadmap, the market based values are used."