NOBIAN

SUSTAINABILITY REPORT 2024

GROW GREENER TOGETHER

Message from the CEO

Dear Reader,

Welcome to our fourth annual Sustainability Report.

As we reflect on 2024, it is clear that our collective efforts to become more sustainable are at an important juncture. The challenges of climate change, resource scarcity, and environmental degradation are intensifying. This calls for even stronger action. At Nobian, we have always believed that companies have a responsibility to lead by example in addressing these global issues. Sustainability is not just a priority for us – it is the foundation of our strategy.

Sustainability is deeply embedded in our vision, in our values, and in our operations. Our vision is a future in which chemistry is fully green and responsible. We are committed to becoming one of the most sustainable chemical companies in Europe. In 2024, we have made significant progress towards this goal. We have further reduced emissions across our operations, advanced the use of renewable energy, and developed innovative, greener chemical solutions. Together, we can create value today, while protecting the planet for future generations.

We accomplished a lot in 2024. But I'd like to highlight three milestones in particular:

1 Nobian was awarded an EcoVadis Platinum rating for the third consecutive year.
2 Our emissions reduction targets were approved by the Science Based Targets Initiative (SBTi), validating our ambitious net-zero goal.
3 We were the first company to sign a landmark tailor-made agreement with the Dutch government, that includes concrete projects and investments to reduce our Scope 1 CO_2 emissions in the Netherlands to near-zero by 2030, ten years ahead of schedule.

In addition to this, Nobian is on track to become net-zero by 2040, with 100% renewable energy. As we are positioned at the beginning of the chemical supply chain, this also supports sustainability across the entire value chain. We are also expanding our portfolio of low-carbon products, including green hydrogen, and battery chemicals activities, as well as our underground energy storage activities.

Our progress would not be possible without the dedication and commitment of our employees and partners. Their passion and expertise fuel my motivation to drive our sustainability agenda. I'd like to thank everyone for their continued support in achieving our sustainability goals.

Let us embrace the opportunities that lie ahead. As they say, teamwork makes the dream work. I am fully confident that we can 'Grow Greener Together'.

Michael Koenig
CEO

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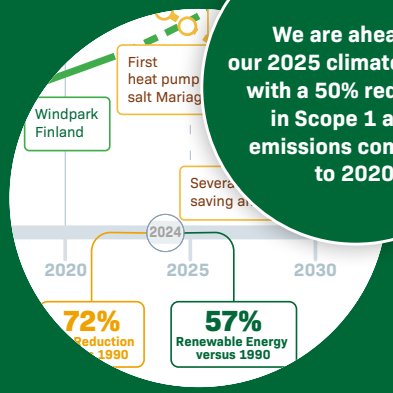

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We are ahead of our 2025 climate targets with a 50% reduction in Scope 1 and 2 emissions compared to 2020

© Ministry of Climate Policy and Green Growth

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We became the first company to sign a tailor-made agreement with the Dutch government to accelerate our CO_2 emissions reduction targets by 10 years

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We secured an Environmental Product Declaration (EPD®) for our ISCC PLUS-certified caustic soda microprills. The environmental footprint of all our low-carbon products is now independently verified

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We have incorporated new and revised metrics in line with the Corporate Sustainability Reporting Directive (CSRD), covering areas such as pollution and fresh water consumption

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Our near and long-term CO_2 emissions reduction targets have been approved by the Science Based Targets Initiative (SBTi)

Introduction

This is Nobian

At Nobian, we transform salt into essential chemicals to make everyday materials. Through salt extraction, electrochemistry, and building energy storage capacity, Nobian is taking a leading role in the energy transition, contributing to a sustainable society and living environment.

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Nobian, Mariager | ©Nobian

As we believe in a world where chemistry is fully green and responsible, we want to be one of the most sustainable chemical companies in Europe. Being at the start of the chemical value chain, we are perfectly placed to support the transition towards green chemistry and low-carbon products. Our ambition is to 'Grow Greener Together' (see section 2.1).

Essential elements at the heart of industry, business, and society

Nobian leverages its expertise in salt production, electrochemistry, and energy storage caverns to supply indispensable raw materials that form the foundation of a wide range of critical materials and products. Our chemicals play a vital role in the production of key components for the energy transition, such as solar panels, batteries, insulation materials, LED lights, and windmill blades. Additionally, they are crucial for everyday life and contribute to a resilient society in challenging situations, including the production of aluminum, steel, and ballistic protection like body armor and helmets.

We operate through integrated chemical clusters and production sites located in Rotterdam, Delfzijl, and Hengelo in the Netherlands; Frankfurt, Ibbenbüren, and Bitterfeld in Germany; and Mariager in Denmark.

Our team of 1,600 employees is committed to enhancing the safety, efficiency, and sustainability of our operations.

The value of salt

Nobian has more than 100 years of experience in producing salt and essential chemicals.

Salt production, as ordinary as it seems, is essential for our modern society – and will continue to be so. Salt is an essential and irreplaceable raw material. Our high-purity salt is ideal for chemical applications and the basis for many of the products we use every day. Salt is needed to produce sustainable technologies and prepare for a sustainable future. Our salt extraction in the Netherlands and Denmark ensures reliable access to this indispensable raw material in Europe, supporting resilience, independent value chains, and economic autonomy for our industry and society.

Essential chemicals

The products and chemicals we provide serve a wide range of applications, from construction and cleaning to pharmaceuticals and water treatment. Our customers rely on us to keep their business running.

Nobian, Hengelo | ©Nobian/Studio Dijkgraaf

Chlorine is a key building block for the chemical and pharmaceutical industries. Nobian produces chlorine through the electrolysis of salt brine with caustic soda and hydrogen. This process is crucial for approximately 55% of European chemical production, supporting the manufacture of chemicals, plastics, and medicines essential to modern life.[1]

We also produce caustic soda, which is used in wastewater treatment, detergents and soaps, paper and board, construction materials, and many other applications. And we produce derivatives such as chloromethanes, which are used as intermediates in the production of pharmaceuticals, agrochemicals, refrigerants, silicone polymers, automotive parts, water treatment, and electronics.

Energy

Our activities are inherently energy-intensive, requiring substantial amounts of steam and electricity. Therefore, our salt production sites are equipped with our own energy production units, including combined heat and power plants, a biomass boiler, and an e-boiler. We also have a dedicated gas-fueled start-stop electricity plant in Delfzijl, which helps stabilize the electricity grid. As a utility provider in several chemical clusters, we supply the steam and electricity we produce, as well as process water, to co-located customers.

In addition to our own energy production, we increasingly source steam and electricity externally from renewable sources, such as waste incineration, wind, and solar energy. We also actively help to stabilize the electricity grid with our E-flex activities.

Energy storage

As we advance in the energy transition, energy storage becomes increasingly important. When there is a surplus of wind and solar energy, there is a significant value in storing this renewable energy for the moments demand exceeds renewable energy production. The storage also enables renewable energy producers to provide security of supply and a stable base load to industrial offtakers.

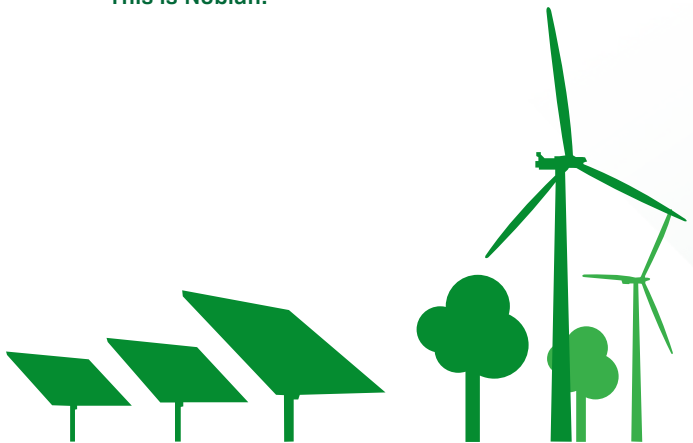
Our salt caverns address this need by offering large-scale energy storage for hydrogen, compressed air and potentially biogas. In fact, underground storage in salt caverns is considered the most effective and technically advanced solution for large-scale hydrogen storage, both technically and economically.[2] The underground storage of hydrogen is also an indispensable element of the planned hydrogen backbone to provide the necessary buffers and balancing of the system.

Sustainability report 2024

In this sustainability report we explain our environmental, social, and governance (ESG) program and ambitions in more detail and report on our performance to date. We do this through tangible examples of our achievements and information on our activities and plans. We are proud to present our accomplishments here.

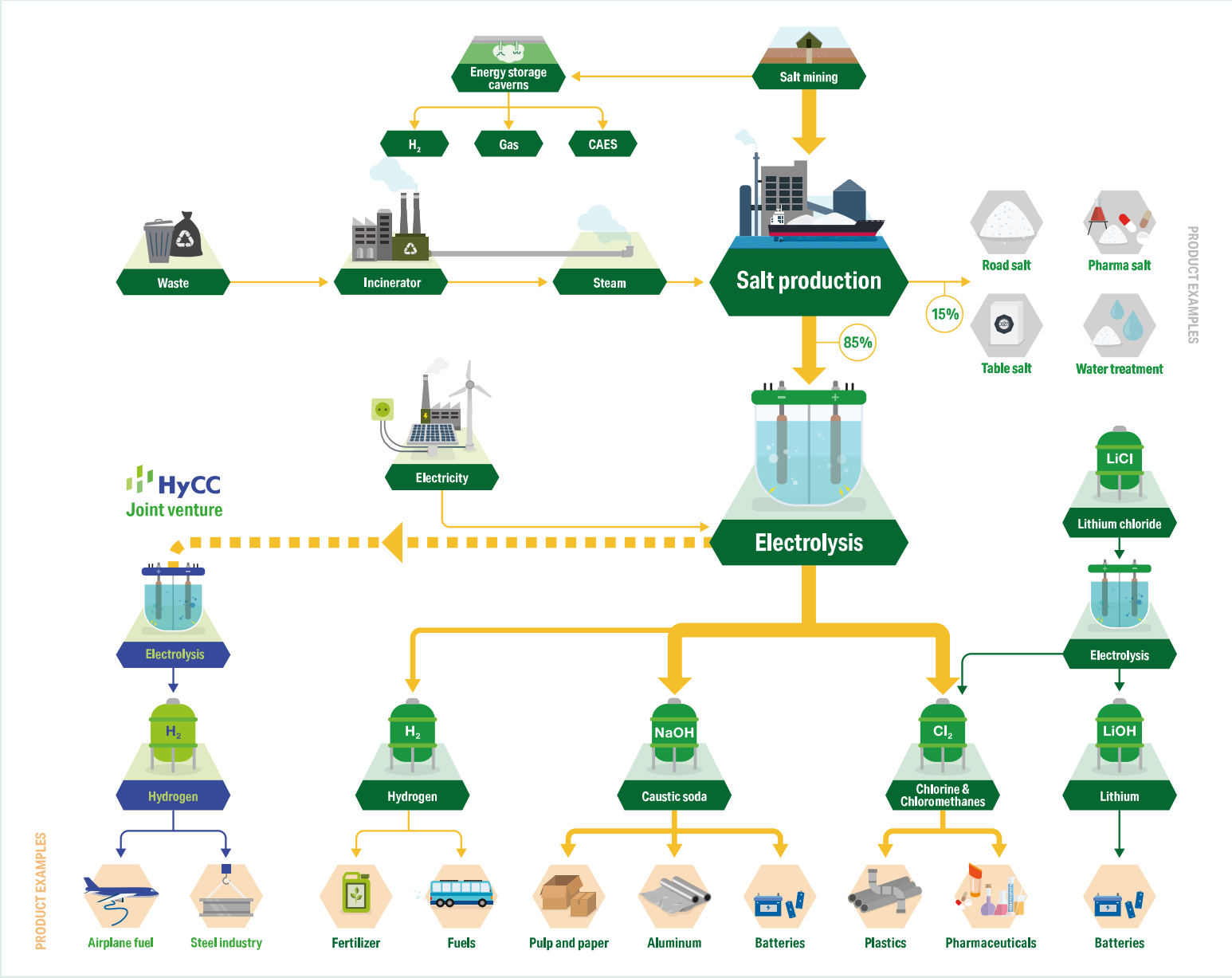
Through collaboration and meaningful engagement with our people, stakeholders, and communities, we are progressing towards becoming one of Europe's leading sustainable companies while continuously improving our performance. This is how we strive to Grow Greener Together every day.

This is Nobian.



[1] Programma Energiehoofdstructuur. Ruimte voor een klimaatneutraal energiesysteem van nationaal belang, page 66, March 2024, Ministerie van Economische Zaken en Klimaat Ministerie van Binnenlandse Zaken en Koninkrijksrelaties.

[2] Large-scale compressed hydrogen storage as part of renewable electricity storage systems, *International Journal of Hydrogen Energy,* 2021, 46(29), 15671–15690. https://doi.org/10.1016/j.ijhydene.2021.03.047



Nobian's products and value chain

40% of all products in the chemical industry are derived from salt.

85% of Nobian's salt is used in the chemical industry.

100% of the salt used in the chlorine clusters in Delfzijl and Rotterdam (Netherlands), Frankfurt and Leverkusen (Germany), Rafnes (Norway) and Tessenderlo (Belgium) comes from Nobian.

Our approach and progress towards a sustainable future

To realize our ambition to Grow Greener Together and become truly sustainable, we measure ourselves against a concrete and challenging set of key performance indicators (KPIs) and targets. These range from reducing CO_2 and increasing the use of renewable energy to expanding our low-carbon products, reducing freshwater consumption, expanding salt recycling, and engaging with the communities we operate in.
Each target is based on one of our three sustainability pillars: Climate, Circular, and Care.

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To position Nobian as the best choice in the job market, we launched our new employer branding campaign in 2024. With the slogan 'Shaping a greener future together. Are you in?' we invite and encourage future employees to join us in contributing to a sustainable future.

2.1. Grow Greener Together

In 2022, we launched our Grow Greener Together sustainability program to position ourselves as one of Europe's leading sustainable chemical companies. Our goals surpass the Paris Agreement targets and seek to help our customers reduce their carbon footprints via our low-carbon products, foster growth in innovative and impactful markets, and strengthen our relationships with employees and among the communities in which we operate.

Grow Greener Together is founded on three pillars: Climate, Circular, and Care.

Each pillar consists of three focus areas with specific, measurable KPIs and targets, detailed in the table on page 12. We have aligned these pillars with the UN Sustainable Development Goals (SDGs) where we believe our impact can be most significant, as outlined in section 2.2.

We want to play an important and material role in Europe's transition to a sustainable economy. Grow Greener Together is an integral part of this ambition. Together with our customers, industry partners, suppliers, and governmental and non-governmental organizations, we remain confident that we can realize this ambition.

Key performance indicators and targets[3]

PILLAR	SUBJECT	KPIs and TARGETS	STATUS YEAR END 2024
Climate	CO_2 reduction	Scope 1 and 2 reduction: 25% by 2025, 50% by 2030 and 100% by 2040 compared to 2020	50% reduction in 2024
		Scope 3 reduction: 2% by 2025, 25% by 2030 and 90% by 2050 compared to 2020	4.9% reduction in 2024
		Carbon neutral in Scope 1 and 2 by 2040	On track
	Renewable Energy	50% share of renewable energy by 2025	57% renewable energy in 2024
		66% share of renewable energy by 2030	On track
		100% renewable energy by 2040	On track
	Energy Efficiency and Storage	Run a pilot for industrial scale electricity storage at Delfzijl site in 2024	Pilot cancelled. Target removed for 2025
		Increase automatic Frequency Restoration Reserve (aFrr) capacity from 10 to 20% by 2025	Behind schedule due to unforeseen IT/OT issues Expected 17% in 2025 and 20% in 2026
Circular	Green Products	Be able to supply at least 40% of total sales volume with low-carbon footprint products by 2025	On track
		Have Environmental Product Declarations (EPD®) available for all low-carbon footprint products in 2024	Target reached. EPDs for new low-carbon products will be added once introduced
	Water	Fresh water consumption reduction: 8% by 2030; 15% by 2035, 35% by 2040 compared to 2020	On track, 9.6% reduction in 2024
		Reduce drinking water intake with 20% by 2035 compared to 2020 and aim to eliminate the use of drinking water for process purposes by 2040	New target for 2025, 3.4% reduction in 2024
	Recycling	100 kton salt is reused from salty residual streams by 2027	One year delay due to permitting
		10 kton CO_2 captured based products in our value chain by 2025	On track, 0% in 2024
		Circular methanol available as source for our chloromethane production by 2030	On track, 0% in 2024
Care	Health & Safety	Reduce safety incidents year-on-year towards zero people and process incidents	Ongoing
		Implement vitality program to increase focus on health (mental and physical) of our employees	Ongoing
	Community	Maintain the active local community program at all sites	Ongoing
		Have an active local community program for all new salt mining projects from start of salt production	Ongoing
	People	Launch employee engagement survey 2024 and act on outcome	Done. To be repeated in 2025
		Act on the Nobian Inclusion and Diversity plan for 2024	Done. To be continued in 2025

[3] Updated in 2025.

Progress towards our targets

Our sustainability strategy is guided by a set of key performance indicators (KPIs) and targets, which are detailed in the table on the previous page. These sustainability KPIs and targets undergo an annual review and update process, receiving approval from the Corporate Responsibility Committee. More information on our overall sustainability governance can be found in the Governance appendix.

The next three chapters of this report provide detailed information on our progress in 2024. A chapter is dedicated to each of the three pillars of Climate, Circular and Care, and the sections within each chapter cover all focus areas. Below is a summary of key achievements, highlights and changes.

In the pillar **Climate** we are ahead of our CO_2 emissions reduction and renewable energy targets and well on track to reach our near-term targets. The planned battery pilot has been cancelled. We are now exploring the application of commercial-scale batteries. We are slightly behind our automatic Frequency Restoration Reserve (aFrr) target due to unforeseen issues in hardware and software needed for this. More information on this can be found in Chapter 3.

In the pillar **Circular** we have already achieved our 2025 target for the availability of low-carbon products. To this end, we have replaced this commercial sales of low-carbon products target. In the focus area Water we have introduced a target to reduce our drinking water intake. In several areas where we operate, drinking water is becoming scarce. With this target, we aim to actively contribute to addressing this need. Further details can be found in Chapter 4.

In the pillar **Care** all focus areas have resulted in ongoing programs and activities which are actively being pursued in our company. These programs and activities are now an integral part of our sustainability approach and company values and cover the essence of our Care pillar. No new targets have been set here. More information can be found in Chapter 5.


Nobian, Hengelo | ©Nobian/Studio Dijkgraaf

Reporting and independent validation

We are transparent in reporting our progress and our approach, and our data is verified by an independent, recognized third-party. We aim high from the outset by participating in three internationally recognized standards: EcoVadis,[4] the Science Based Targets Initiative (SBTi),[5] and CDP.[6]

In 2024, our CO_2 reduction targets were successfully validated by SBTi, officially making us a net-zero company.

We participate in CDP, which means we report our progress on both our climate ambitions and water management in detail. Our sustainability report and ESG data align with the standards of the Sustainability Accounting Standards Board (SASB)[7] and our ESG data and sustainability report are independently assured by DNV.[8] We also completed a comprehensive project to implement the new EU Corporate Sustainability Reporting Directive (CSRD).

In this 2024 sustainability report, we have incorporated new and revised metrics in line with CSRD, ahead of our required compliance. These cover areas such as pollution, freshwater consumption, and waste management.

[4] https://ecovadis.com/
[5] https://sciencebasedtargets.org/
[6] https://www.cdp.net
[7] https://www.sasb.org/
[8] DNV Business Assurance Germany GmbH

2.2. UN Sustainable Development Goals

Guided by our values and plans, Nobian is committed to contributing to the prosperity and well-being of a sustainable society. We therefore support the UN's SDGs. The six on the right are where we believe we can make the biggest impact.

Progress towards SDGs

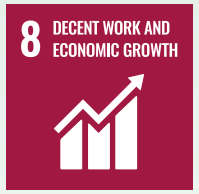
As an integral part of our sustainability approach, we report our progress against each of these six SDGs in the relevant sections of this report.

We made significant progress or achieved continued good performance in 2024, as we did in the previous year. This was particularly the case in the areas of *Affordable and clean energy* and *Climate action* (Chapter 3), *Decent work and economic growth* via our renewable energy and low-carbon products approach (sections 4.1 and 5.3), *Responsible consumption and production,* and *Good health and well-being* via our engagement with communities (section 5.2).

Six UN SDGs where we can make the biggest impact[9]

Human health and safety are at the heart of our operations and among our top priorities. We continuously work to reduce pollution from our operations to minimize the impact on our workplace, the environment, and our surroundings. We actively engage with communities in close proximity to our production facilities, sharing our knowledge and supporting local initiatives.

As a company with high energy demands, we have taken substantial steps to help increase our availability and share of renewable energy. We actively participate in the development of new wind farms to support grid stabilization and lower energy consumption, while our unique processes and expertise enable us to produce green hydrogen and store renewable energy.



We firmly believe that business performance and sustainability go hand in hand. To this end, we invest in renewable energy and low-carbon products that deliver sustainable growth and create new and meaningful jobs. We work hard to empower our employees and create a high-performing, diverse, and inclusive workplace that reflects our values and the nature of our company.

To achieve our sustainability targets, we are embracing innovation and new ways of working. We collaborate with our partners across the value chain to seize these opportunities. To develop and commercialize pioneering solutions, we invest in state-of-the-art technologies focused on renewable energy storage, battery chemicals production, and novel approaches to enhance the sustainability of the cement industry.

We actively seek to create circularity within our production processes and throughout our value chain, such as the reuse of salt from residual streams from customers. Furthermore, we strive for greater efficiency by reusing residual and energy streams from our own operations and those of our customers.

We recognize that we have a significant role to play in reducing our CO_2 emissions. In leading by example, we demonstrate our commitment through tangible actions. Our commendable record of reducing emissions began in 1990 and we are well on track to meet our near and long-term targets.

[9] UN SDGs not part of assurance by DNV.

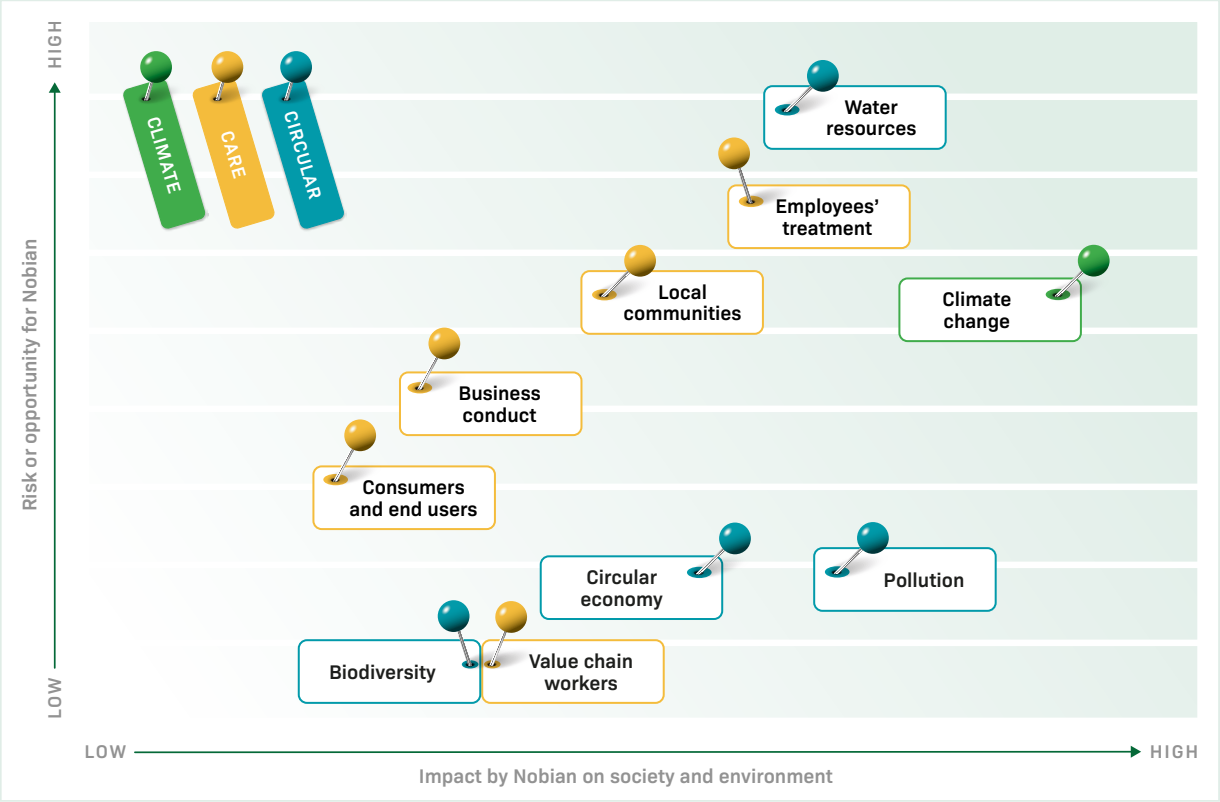
2.3. Double materiality assessment

As part of the implementation of the EU CSRD, we conducted a double materiality assessment[10] to identify key or 'material' sustainability topics for our strategy, actions, and reporting. This was completed in early 2024 and helps us understand the materiality of various ESG topics from two perspectives: inside-out (our company's impact on society and the environment) and outside-in (the risks and opportunities ESG topics pose to our company's performance).

The first step was a high-level assessment of impact, risk, and opportunity, identifying the most important ESG topics for Nobian according to external and internal stakeholders, including investors, public authorities, non-governmental organizations, suppliers, customers, and employees.

The risks and opportunities assessment is an integral part of our enterprise risk management (ERM) process, demonstrating the impact of specific ESG topics on our company. See appendix 'Impacts, risks, and opportunities'.

Seven of the topics were assessed as material and are addressed in chapters 3, 4, and 5 of this report. Three of the topics – biodiversity, value chain workers, and consumers and end users – have been assessed as not being directly material to Nobian. More information follows.



Materiality assessment

Biodiversity

Our operations consist of salt mining activities, salt production, and the production of other essential chemicals. Most of our production sites are situated

[10] Double materiality assessment not part of assurance by DNV.

Nobian, Delfzijl | © Nobian/Studio Dijkgraaf

in industrial areas, away from biodiversity-sensitive regions, with the exception of our site in Delfzijl, in the Netherlands, which is located near the Wadden Sea. The Wadden Sea is a Natura 2000 and UNESCO World Heritage site that includes a small area sensitive to nitrogen pollution. The impact on biodiversity of the nitrogen oxide (NO_x) emissions at our Delfzijl site is negligible. In addition, heat discharge into the Eems (a Natura 2000 site) at Delfzijl remains well within the permitted limits and will be further reduced through the implementation of the tailor-made agreement. With respect to our mining operations, most activities take place underground, resulting in minimal impact on biodiversity. Potential impacts from the development of new wells and pipelines are carefully managed in line with the relevant permits, such as preventing disruption to nesting birds.

Value chain workers

Our activities are focused on the production and supply of base chemicals used in the chemical industry at the start of the value chain. Our direct workforce is limited to our own employees in Western Europe, and we do not have significant interactions with value chain workers who are further downstream in the production process. Additionally, stringent labor and safety regulations in Western Europe ensure that our employees' rights and welfare are well protected and monitored. For these reasons, *value chain workers* are not a material topic for our reporting.

Consumers and end users

Our products are used mainly in industrial processes. The chemicals are typically used as raw materials or intermediates in manufacturing goods like PVC, polyurethanes, pulp, and paper, and in other industrial applications. Our production processes and products comply with the most extensive and stringent regulations on health, safety, and the environment. As our products are not sold to consumers, and rarely sold to end users, we do not significantly impact consumers and end users.

Climate

Reducing our environmental footprint

We are ahead of schedule in meeting our 2025 targets for our Scope 1 and 2 CO_2 emissions and renewable energy, and are on track to become net-zero by 2040. Since 1990, we have already reduced our carbon footprint by 58%. Over the same period, we have increased our use of renewable energy to 57%.

In December 2024, Nobian signed a tailor-made agreement with the Dutch government to bring forward our goal to reduce our Scope 1 CO_2 emissions in the Netherlands to almost zero within 10 years, by 2030. A key element of this collaboration is the large-scale electrification of Nobian's salt production processes, which reduces both emissions and the use of natural gas.

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Climate KPIs and targets

Climate

CO_2 reduction

- Scope 1 and 2 reduction: 25% by 2025, 50% by 2030 and 100% by 2040 compared to 2020
- Scope 3 reduction: 2% by 2025, 25% by 2030 and 90% by 2050 compared to 2020
- Carbon neutral in Scope 1 and 2 by 2040

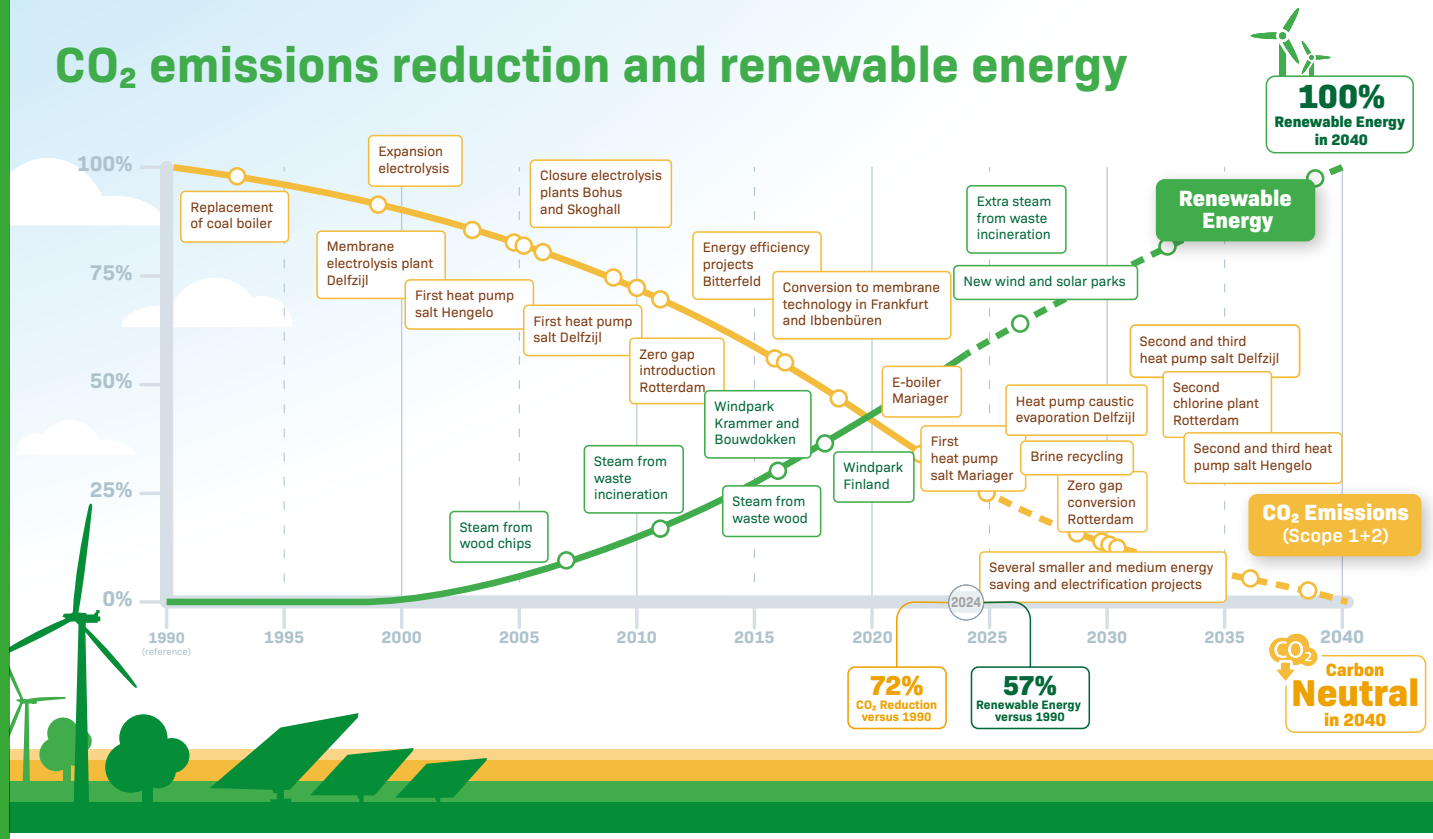
Renewable Energy

- 50% share of renewable energy by 2025
- 66% share of renewable energy by 2030
- 100% renewable energy by 2040

Energy Efficiency and Storage

- Run a pilot for industrial scale electricity storage at Delfzijl site in 2024
- Increase automatic Frequency Restoration Reserve (aFrr) capacity from 10 to 20% by 2025

CO_2 emissions reduction and renewable energy



Since the 1990s Nobian has worked to reduce CO_2 emissions and increase the use of renewable energy sources. And the journey continues with robust plans for the future.

3.1. Greenhouse gas emissions reduction

Reducing our Scope 1 and 2 emissions is crucial due to the energy-intensive nature of our production processes. We aim to be net-zero in both scopes by 2040, ahead of the Paris Agreement goals. Our targets have been evaluated by SBTi and comply with the target to limit global warming to 1.5°C.

The infographic on page 19 shows what we have accomplished so far, along with our plans for the future.

Scope 1 and 2 emissions

In 2024, we continued our trend of making significant progress in our CO_2 reduction targets. We achieved a 50% reduction in Scope 1 and 2 emissions compared to our reference year 2020, bringing us significantly ahead of our short-term target of a 25% reduction by 2025. This overall reduction is a combination of an increased share in the use of renewable energy, CO_2 saving measures and lower production volumes.

Our main source of Scope 1 emissions – the greenhouse gases we generate directly – is the combustion of natural gas to produce steam and electricity in our boilers and combined heat and power plants.

Compared to the previous year, our Scope 1 emissions decreased in 2024 by 14%. This significant decrease comes primarily from using more external steam from municipal waste incineration instead of from our own natural gas-powered combined heat and power plant at our production facility in Hengelo. The intake of more steam from incineration has been enabled by a debottlenecking project for the external supply of steam, finished in 2024, and the installation of a small back-up boiler, installed in 2023.

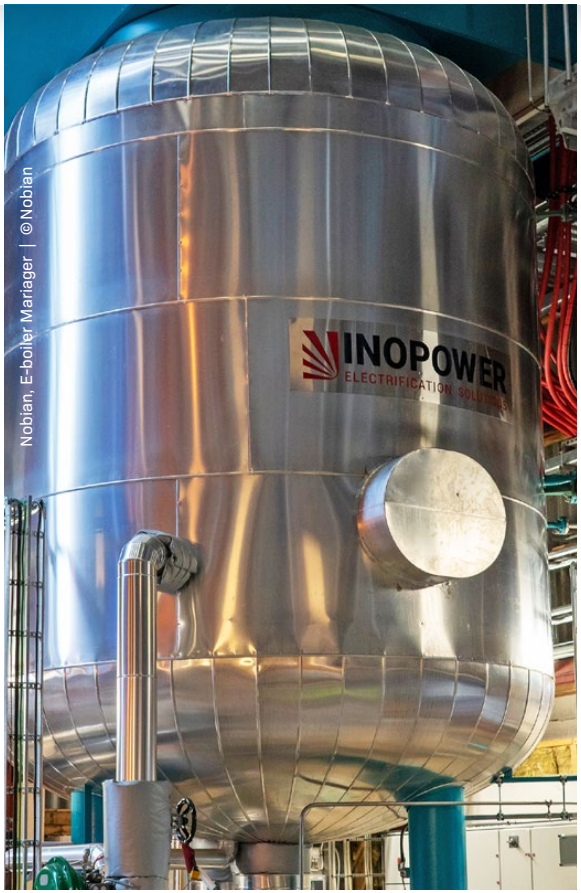
At company level, some of the savings achieved in Hengelo were partly offset by an increase in production volumes at our Delfzijl site. Overall, we used over 55 million m^3 less gas than in 2023.

In 2024, our Scope 2 emissions dropped significantly. This is mainly due to a substantial increase in our share of renewable energy. For more information, see section 3.2.

Scope 3 emissions

This year we refined the calculation methodology for a few categories to more accurately reflect the actual situation at Nobian and to enable better monitoring of incremental changes. Where applicable, we retroactively updated the figures for the period 2020–2023 to be consistent. All methodologies are in accordance with SBTi guidelines. More details can be found in the basis of reporting.

Compared to the previous year, we had a minor increase of 0.5% (6 kton CO_2-eq) in our overall Scope 3 emissions. This is the result of a combination of increases and reductions in the various categories. The biggest increase can be found in Category 1 due to increased purchase and tolling of raw materials, and Category 10 *processing and use of sold products* and Category 11 *end-of-life treatment*, due to higher sales of products in this category. The biggest reduction we saw in Category 3 *fuel and energy related*, mainly caused by significant increases in the share of renewable energy we use.



Nobian, E-boiler Mariager | © Nobian

Compared to our baseline 2020 our Scope 3 emissions have been reduced by 4.9%.

Nobian, Bitterfeld | ©Nobian/Celine Paczkowski

Case study

Nobian signs its first power purchase agreement (PPA) in Germany

Nobian has signed a corporate PPA with Tion Renewables to supply renewable electricity to Nobian's German operations. This customized PPA, spanning 2026 to 2028, will supply Nobian from an installed capacity of approximately 25 MW, with an estimated production of between 35 and 40 GWh a year. This equates to the annual electricity consumption of 10,000 households.

The agreement underlines Nobian's commitment to procure electricity in the countries where we operate and strengthens our sustainability efforts across Europe. The volume will be allocated to Nobian's electrolysis plant in Bitterfeld in eastern Germany, where it will cover all electricity consumption during periods of high wind. Annually this is around 20–25% of the plant's total energy consumption with an expected Scope 2 emissions savings of 20 kton CO_2 per year.

3.2. Renewable energy

We use our own combined heat and power plants to produce steam and electricity, but we also procure a significant share of energy from third parties. We increasingly source this external energy from renewable projects. We purchase steam from waste incinerators and biomass plants, and have concluded several power purchase agreements (PPAs) to procure wind and solar electricity.

In 2024, we took a significant step forwards in our use of energy from renewable sources, growing to 57% renewable energy, from 41% in 2023. This demonstrates continuous growth in line with previous years. The main improvement comes from the increased share of renewable electricity in Germany, while lower production volumes also contribute.

In Germany, changes were made to the electricity labeling legislation, which affected the distribution of renewable electricity. Previously, privileged customers received renewable electricity allocations from a scheme covered by the German Renewable Energy Act.[11] As a result, Nobian now benefits from an energy mix with a minimum of 49.1% renewable electricity. In addition, we have started to purchase renewable energy from third parties as part of our overall targets and to enable the production of more low-carbon products in Germany.

We also increased the use of renewable steam from municipal waste incineration in the Netherlands, reducing our own gas-powered steam production. Further to this, we expanded our renewable energy portfolio by activating new PPAs from wind and solar projects in the Netherlands. Our activities in Germany also reached a significant milestone as we signed our first onshore wind PPA (see case study on the previous page).

These activities underline one of the fundamental principles of our energy strategy – to focus on sourcing renewable power locally, in the countries where we operate.

[11] https://www.bundesregierung.de/breg-en/issues/sustainability/amendment-of-the-renewables-act-2060448

Tailor-made agreement Nobian

NOBIAN

Towards zero Scope 1 CO_2 emissions by 2030, a 10-year acceleration in the Netherlands

Acceleration based on proven technology – impactful projects:

A DELFZIJL AND HENGELO

2028

Electrification of salt production in **Delfzijl** with industrial heat pumps

Electrification of salt production in **Hengelo** with industrial heat pumps

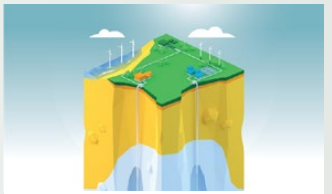
B ROTTERDAM

2027-2029

Reducing electricity consumption chlor-alkali production in **Rotterdam** by approximately 15%

C ENERGY STORAGE

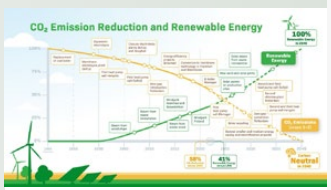
2025-2030



Realization of energy storage caverns in **Zuidwending** to facilitate the energy transition

D PORTFOLIO OF SMALL PROJECTS

2023-2030*



Portfolio of energy efficiency initiatives, such as the **Delsalto circular project**

*Phased

Tailor-made agreement

- **Total investment EUR 645 million**
- **Government grants under tailor-made approach EUR 185 million** – For projects A, B and D
- **Fast, predictable and efficient permitting** – Government striving to take permitting decisions within statutory time limits

Benefits and impact as result of tailor-made support

Additional reductions as part of portfolio of small projects without tailor-made support

525 kton CO_2	**400 tons of NO_x**	**300 million m^3 of gas** ~1% of Dutch gas consumption, equivalent to 250,000 households	**135 GWh** in Rotterdam. Equivalent to 50,000 households in Rotterdam and + 25 MW E-flex capacity on the grid	**1.7 million m^3 of water** and **90 MW lower heat purge** in water	**Energy storage in salt caverns** as key building block in the energy transition

SUSTAINABLE SALT MINING - SUSTAINABLE CHEMICAL PRODUCTION - SUSTAINABLE INDUSTRY IN NL

An overview of the planned projects, the tailor-made agreements that Nobian has agreed with the Dutch government, and their impact.

From left to right: Erwin Hoogland (member of the Overijssel provincial executive), Arne Weverling (member of the Zuid-Holland provincial executive), Michael Koenig (CEO Nobian), Sophie Hermans (Minister of Climate and Green Growth), Jan Hendrik Dronkers (secretary-general of the Ministry of Infrastructure and Water Management).

Case study

Nobian signs a tailor-made agreement with the Dutch government

Nobian has signed a tailor-made agreement with the Dutch government to accelerate its carbon reduction efforts. This should enable us to achieve zero Scope 1 emissions by 2030, a full decade ahead of our existing 2040 ambition.

Major environmental impact

The tailor-made agreement enables us to convert our salt production from natural gas to electricity; this is expected to significantly reduce our annual carbon emissions by more than 0.5 million tons of CO_2. In addition, we expect substantial reductions in nitrogen dioxide emissions and water usage, further contributing to a cleaner and more sustainable production process.

We aim to implement innovative and sustainable practices by replacing gas-fired evaporation plants with electric-powered industrial heat pumps in Hengelo and Delfzijl. Additionally, we aim to accelerate the replacement of electrolysis capacity for chlorine production in Rotterdam with the latest technology, and recovering salt from residual streams.

The tailor-made agreement between Nobian and the Dutch government marks a significant investment and collaboration effort. It represents a total investment of EUR 645 million, including EUR 185 million in government subsidies. The collaboration involves regional ministers from Groningen, Overijssel, and South Holland, highlighting its strategic importance.

The Dutch government aims to make the industry more sustainable and future-proof with this tailor-made approach, setting a precedent for similar future agreements and encouraging other companies to adopt sustainable practices. Our commitment to sustainability is exemplified by this landmark agreement, which is not only expected to accelerate our carbon reduction targets but also sets a benchmark for industry.

Case study

Driving sustainability through strategic partnerships for low-carbon solutions

Our recently introduced low-carbon caustic soda lye and microprills have attracted significant market interest, with a notable shift from traditional products to our sustainable alternatives. Many customers, such as in the pulp and paper, chemical, food and beverage, pharmaceutical and distribution sectors, have embraced these low-carbon solutions, reflecting a clear market pull for environmentally friendly products. Customers recognize the added value of low-carbon products and find in Nobian a strategic partner to enable the decarbonization of their value chain.

The impact of our low-carbon caustic soda on customers' Scope 3 reduction targets is substantial.

By reducing the carbon footprint of our essential chemicals, we enable partners to achieve their sustainability goals more effectively. One customer highlighted that by sourcing Nobian's ISCC PLUS-certified caustic soda, they have achieved a Scope 3 reduction of 3.4 kton CO_2-eq per year.

Through strategic partnerships and our expanding portfolio, we continue to lead in providing low-carbon solutions that drive sustainability across the industry.

Nobian, Rotterdam | ©Nobian/Studio Dijkgraaf

3.3. Energy efficiency


© Shell Netherlands

We strive for maximum energy efficiency at each of our production sites. Our processes are energy intensive, so we continuously look for opportunities to optimize our energy use. Nobian has an ambitious and standardized energy efficiency program with clear governance in place. Our portfolio of energy-saving projects is monitored at our headquarters, discussed on a regular basis with all sites, and reported to Nobian's Technology and Sustainability Leadership Team.

In 2024, we replaced a steam-operated absorption chiller with an energy-efficient electrical compressor chiller in Delfzijl. Additionally, we installed a new fit-for-purpose steam reduction valve to improve the energy efficiency of the combined heat and power plant in Hengelo during part-load operations.

The planned battery pilot project in Delfzijl, scheduled for 2024, has been cancelled. The battery market is developing rapidly, and we are now exploring the application of commercial-scale batteries at our sites with external partners.

E-flex

E-flex aims to make our electrolysis plants more flexible, enhancing our role in stabilizing the electricity grid. This will enable our plants to add the most value by ramping down when there is a power shortage. The ESG target is to increase automatic reserve power from 10% to 20% by 2025. In 2024, we increased to 11%, which is behind schedule because of unforeseen challenges in connecting the plants in Delfzijl. We now expect to reach 17% by the end of 2025.

The change in power consumption needs to happen within 5 minutes. To enable more power, we need to continuously improve the automation of the plants. Our production plant in Frankfurt offers a good example: in 2024, capacity there increased from 5 to 7 MW, and the 10 MW test was successfully completed in December. The next goal is 15 MW by the end of 2025.

For E-flex, there also needs to be a direct connection from the grid provider to the plant. This is in place for the electrolysis plants in Frankfurt, Rotterdam, and Bitterfeld. For Delfzijl and Mariager this will be realized in 2025.

E-flex technology will also be implemented in both our existing and new salt plants that use heat pump technology (MVR). The first application will be on the existing MVR in Delfzijl. This will serve as a model for the other large-scale heat pumps.

In Mariager, the E-boiler approach is integrated into a local energy flexibility and optimization project with surrounding companies. Another initiative for E-flex is exploring the potential for batteries to support our energy portfolio.

Case study

Constructing an energy-efficient electric evaporation plant in Delfzijl

Nobian is cooperating with its energy partner, Adven, to build a new energy-efficient caustic soda evaporation plant in Delfzijl, with an industrial heat pump running on electricity at its heart. This electrification of caustic soda production will reduce CO_2 emissions in Delfzijl by 25 kton annually and achieve an energy saving of 85%. The plant is expected to be operational in 2027.

This is the first time Nobian will apply this technology to the evaporation process for caustic soda.

Through such collaborations, we are accelerating our ambition for sustainable production by switching to electricity for certain parts of the process and depending less on steam produced with natural gas.

∧ *Adven and Nobian staff at the launch of the collaboration to construct the new electric evaporation plant for caustic soda in Delfzijl.*

> *Anders Ericsson – CEO Adven (left) and Markus Mingenbach – Senior Vice President Chlor-Alkali and Chloromethanes at Nobian.*

Circular

Circular economy and green products

Through our sustainable technology, we help transform salt into products essential to everyday life, while building a sustainable future by reducing carbon emissions throughout the value chain.

A key part of our approach is to reduce the environmental impact of our products to an absolute minimum. We also focus – through targeted projects – on reducing our freshwater consumption and salt recycling to reduce our impact on natural resources and make our business evermore circular.

GROW GREENER TOGETHER

Circular KPIs and targets

Circular

Green Products

- Be able to supply at least 40% of total sales volume with low-carbon footprint products by 2025
- Have Environmental Product Declarations (EPD®) available for all low-carbon footprint products in 2024

Water

- Fresh water consumption reduction: 8% by 2030; 15% by 2035, 35% by 2040 compared to 2020
- Reduce drinking water intake with 20% by 2035 compared to 2020 and aim to eliminate the use of drinking water for process purposes by 2040

Recycling

- 100 kton salt is reused from salty residual streams by 2027
- 10 kton CO_2 captured based products in our value chain by 2025
- Circular methanol available as source for our chloromethane production by 2030

Salt, chlorine, caustic soda, and hydrogen production are energy intensive by nature. Through our Grow Greener Together program, we are significantly reducing the carbon footprint of our customers. Many of our plants are based in clusters with our customers, enabling us to recycle residual streams and enhance circular processes.

4.1. Low-carbon products

At Nobian, we are committed to leading the way in sustainable chemical manufacturing by developing and expanding our portfolio of low-carbon products. These help our customers reduce the carbon footprints of their own products and their Scope 3 emissions. Each of our low-carbon products is produced using 100% certified renewable electricity. The environmental footprint is substantiated by independently verified life-cycle assessments and Environmental Product Declarations (EPD®).[12]

Nobian was one of the first chlor-alkali players to certify its caustic soda and chlorine production according to the ISCC PLUS[13] scheme. As we expanded our certified low-carbon product portfolio in 2024 with caustic soda microprills and all chloromethanes' products, we also expanded our geographic reach for low-carbon products. The value of low-carbon solutions is more and more recognized in the market, resulting in ever-increasing demand.

We started building our portfolio of green products in 2018 with hydrogen certified under the CertifHy scheme[14] as being produced entirely with renewable energy. With the introduction of the official Dutch Hydrogen Guarantee of Origin[15] issuing body VertiCer, Nobian has transitioned to this system and, by 2025, will be the largest registered hydrogen producer able to issue Dutch Hydrogen Guarantees of Origins. Our efforts for green hydrogen certification extend to Germany too, where our Bitterfeld plant is certified according to the CMS 70 scheme and guarantees hydrogen produced with 100% renewable energy.

With the third revision of the Renewable Energy Directive (RED III), a regulated definition of green hydrogen has been introduced by defining renewable fuels of non-biological origin (RFNBO).[16] RFNBOs consist of green hydrogen, e-fuels (e.g. e-methanol, e-methane) or green ammonia produced based on renewable electricity. They must follow strict regulated guidelines for the production process and electricity-sourcing requirements.

[12] The EPDs can be downloaded via the international EPD system https://environdec.com

[13] www.iscc-system.org/certificates/valid-certificates/

[14] www.certifhy.eu

[15] www.verticer.eu/en/guarantees-of-origin/

[16] https://setis.ec.europa.eu/renewable-fuels-non-biological-origin-european-union_en

Nobian is taking the lead in the RFNBO market and will be among the first to deliver hydrogen as a RFNBO to the European market as early as 2025. To support this, we are certifying our Rotterdam plant under the ISCC EU Voluntary Scheme. Registration of our other chlor-alkali plants for RFNBO production is planned for the coming years.

Battery chemicals

With the EU expected to significantly reduce the production of fossil fuel cars, battery production for electrical vehicles in Europe is a potential growth market. At the same time there is a growing strategic drive in Europe to depend less on (critical) raw material supply. Nobian expects to play an important role in the battery value chain. Building on our capabilities and market potential, we will expand our battery chemicals activities, focusing on developing new products and processes directed towards the battery value chain.

Building on our extensive electrolysis and crystallization knowledge, we have developed a new refining process for production of lithium hydroxide, the active compound used in batteries sought by many car manufacturers in Europe. A patent has been filed, and the process has been validated with a large global engineering company and equipment supplier active in lithium. In implementing our process, we continue to seek collaborations with

Nobian, Rotterdam | © Nobian/ Studio Dijkgraaf

Nobian, Frankfurt | ©Nobian/Celine Paczkowski

partners that extract lithium chloride, for example, from underground aquifers in Europe as well as in the US and South America.

Simultaneously, we are leveraging our sodium chloride chemistry know-how to conduct ongoing research into alternative technologies to lithium, such as so-called 'sodium-based batteries'. This is an exciting time as we are collaborating with startups and others active in this space.

Our key focus is a new production process for the electrolyte $NaAlCl_4$ (used in molten salt batteries), for which we have filed a patent application. A subsidy project for scaling up this process to a pilot research reactor was granted and has commenced. We have connected with a number of interested players in Europe who are actively developing sodium-based batteries using this compound. In alignment with our plans to develop sodium-based battery materials and apply batteries on our sites, we have joined a Dutch consortium that has submitted a significant subsidy proposal on batteries to the Dutch Growth Fund (Groeifonds).

In lithium-based battery production, sodium sulfate is typically generated as a by-product. To keep the lithium value chain operational as the market grows, it is vital to recycle this compound, and the battery industry is exploring various methods. At Nobian, we have developed an innovative process and filed a patent application to regenerate sodium sulfate, converting it back to sodium hydroxide and sulfuric acid, that can be used again in the battery value chain. We are now actively connecting various potential collaborators to develop and scale this technology. This work also connects strongly to our overall recycling ambitions, see also section 4.3.

Value chain

Nobian also supports the development of new value chains that drive sustainability and reduce the global carbon footprint. Examples include applying our low-carbon caustic soda to battery chemicals production, and supporting the development of geopolymer-based products in the cement industry.

Nobian, Frankfurt | ©Nobian

Case study

Nobian achieves ISCC PLUS certification for chloromethanes

We have reached a significant milestone in obtaining the ISCC PLUS certification for our chloromethane products produced at the Frankfurt site for the first time. The certification ensures that our products are manufactured using renewable raw materials and meet stringent environmental criteria.

The process involved rigorous auditing by an ISCC-recognized certifying body, which assessed and verified the use of renewable raw materials to produce low-carbon chloromethane products. The successful completion of this process confirmed that our chloromethane products are sustainably produced and have a carbon footprint 30 to 55% lower than conventional chloromethanes. By using renewable raw materials, we not only reduce the carbon footprint of our products but also help our customers achieve their environmental goals.

Case study

Transitioning to alternative fuels for product transportation

Nobian has taken significant steps to reduce CO_2 emissions in its transportation operations (Scope 3 reduction). In addition to developing green products, we are exploring various options to minimize our carbon footprint in transport. One promising solution in the market is the use of hydrotreated vegetable oil (HVO), along with hydrogen and electricity.

HVO is a type of diesel produced not only from vegetable oils but also from waste, residue oils, and fats, such as used cooking oil. Nobian is focusing on the use of HVO100, which offers a CO_2 reduction of at least 70% relative to conventional diesel.

Customers have also recognized HVO100 as a sustainable fuel and have started requesting it in their tenders for sustainable products and transport. As a result, we successfully completed our first delivery using HVO100 in December 2024. To ensure proper registration and accountability, we have established clear agreements with our logistics vendors to certify, administer, and report our HVO usage and allocation.

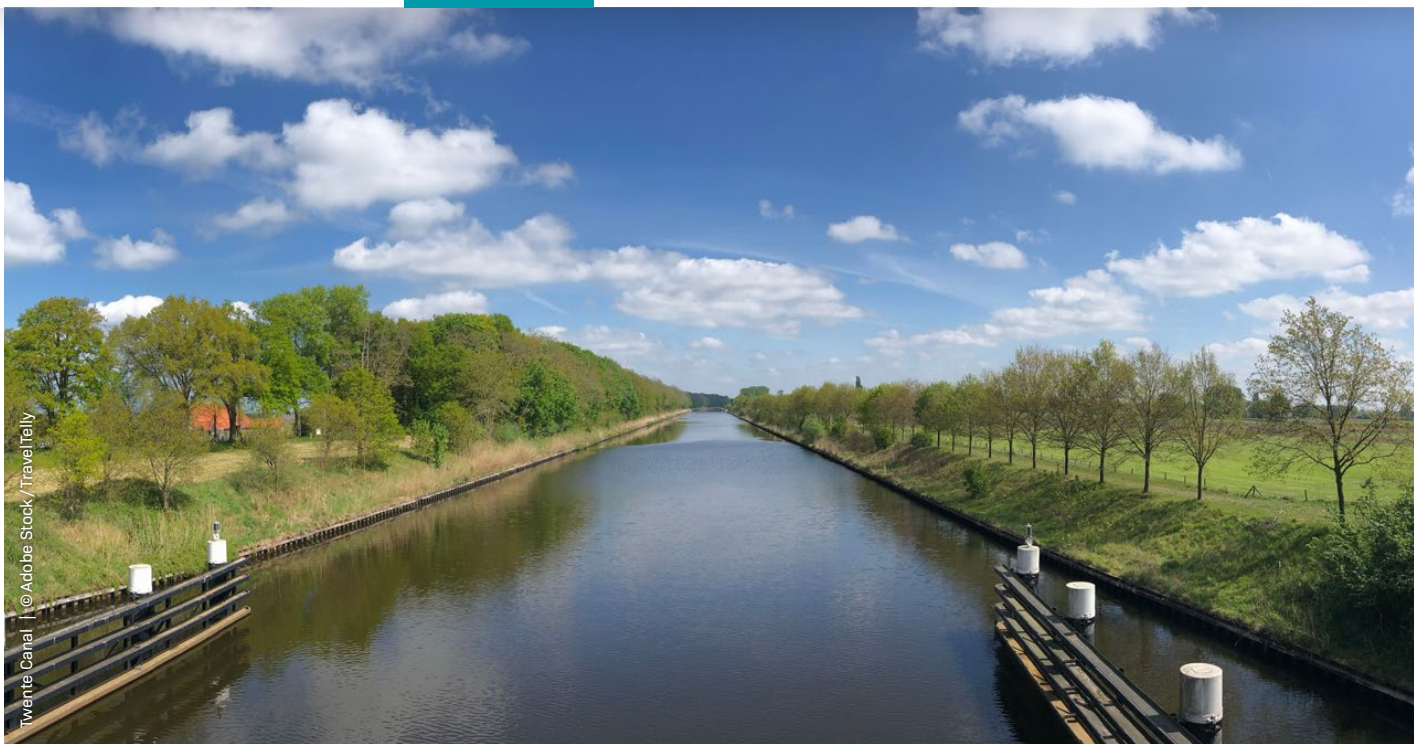
We plan to roll out the use of HVO100 for internal deliveries between Nobian sites alongside customer deliveries in 2025. Additionally, we aim to develop contracts for electric trucks and trucks powered by hydrogen for dedicated transportation of our chemicals. We aim to reduce CO_2 emissions in transport by 30% by 2030 compared to our baseline year of 2020. By adopting HVO100 and planning for electric and hydrogen trucks, Nobian is setting a benchmark for sustainable practices in the industry.

Nobian, Delfzijl | ©Nobian

4.2. Water

The availability of fresh water, whether for drinking, agricultural use or industrial use as a raw material, is under increasing pressure.

Our double materiality assessment (page 16) identifies *water resources* as a material topic, based on our environmental impact and the operational risks and opportunities they can bring. Reducing freshwater consumption has therefore become a key focus of our sustainability approach. See appendix 'Impacts, risks, and opportunities' for details on how we screened the impacts, risks, and opportunities related to water resources.


Twente Canal | © Adobe Stock / TravelTelly

Nobian's main freshwater use is related to our solution mining operations and chlor-alkali production processes and products. As part of our CSRD implementation project, the definitions used to calculate our freshwater consumption have been updated to comply with the European Sustainability Reporting Standards (ESRS).

Instead of measuring our water consumption, it is now calculated based on freshwater intake minus the amount of water discharged into a freshwater environment or sold to third parties. This is a more accurate method and better reflects actual societal needs. Based on the new definitions, we have recalculated our water consumption retroactively to our baseline year 2020. The new definitions result in slightly lower water consumption figures compared to the previous method. The new data can be found in the ESG Factsheet on page 61.

Our Water Management Policy has been updated to reflect the new ESRS definitions. While no significant changes were required, we have added a target to reduce our drinking water consumption by 20% by 2035 compared to 2020, aiming to eliminate the use of drinking water for process purposes by 2040. This target builds on top of our existing targets to reduce our freshwater consumption by 8% by 2030, 15% by 2035 and 35% by 2040 compared to 2020.

Our Water Management Policy describes our freshwater targets and the high-level approach to achieving them. This includes reducing water consumption in areas at risk of water scarcity.

In 2025, we will implement a comprehensive water management program to achieve these targets. More details on our water use and sources can be found on the CDP website.[17]

[17] https://www.cdp.net/

Case study

Recovering precious metals from electrolyzers

Our chlor-alkali electrolysis technology uses precious metals such as ruthenium and iridium. Together with Asahi Kasei Corporation (AKC), one of our main electrolyzer suppliers, we are working to 'close the loop' and create a circular value chain by developing routes to recycle the end-of-life metals from electrodes and cell frames. The concept is being developed collaboratively and initial testing suggests most of the ruthenium and iridium can be recovered.

Recovered precious metals, in addition to the main metals titanium and nickel, will be reused by the supplier to produce new (recycled) electrodes and cell frames, creating a circular value chain. By securing these critical raw materials, we are far ahead of the EU's 'Critical Raw Material Act' which requires a minimum of 25% of strategic raw materials (including iridium and ruthenium) to be recycled within the EU by 2030. Overall, this will also reduce our environmental impact in the value chain by reducing the mining of these essential materials.

In 2025, we will complete the full testing phase and expect that recovery and recycling processes will continue in collaboration with the supplier.

Nobian, Ibbenbüren | ©Nobian

4.3. Recycling

To create a circular value chain, we are developing routes to recycle our products from salty residual streams. We have designed a process route to purify a concentrated salty residual stream from a customer in Delfzijl. This project is now an integral part of the tailor-made agreement outlined in the case study on page 23.

The recovered salt is brought to a quality level sufficient for use in our chlorine electrolysis, making part of the production process circular. In addition, we help our customers to reduce the number of substances of very high concern present in the residual stream by removing them in the purification process. The treated recycled stream that feeds into our plant also reduces overall energy and freshwater consumption. Overall, this provides some especially attractive environmental benefits. The project is in the permitting phase and is expected to be realized in 2028.

Next to salt recycling, we recently launched a project to recycle our electrolysis electrodes to recover precious metals. These will be used to produce new electrodes, thereby closing the circularity loop. This will reduce our environmental impact and contribute to reducing our dependence on the availability of critical raw materials (see case study on the previous page).

Additionally, efforts are being made to recycle certain battery chemicals. For more information, see section 4.1.

4.4. Pollution

The double materiality assessment completed in January 2024 identified pollution as a material issue for reporting under the EU CSRD. Pollution comprises emissions to air, water, and soil. In 2024, we took an inventory of which emissions we need to report based on the threshold values in the European Pollutant Release and Transfer Register. Copper, nickel, chloride, and total organic carbon each exceed these reporting thresholds. Of these, only nickel is classified as a substance of very high concern, and there are no other substances of high concern that exceed the threshold. Our target is to revise older environmental permits and with this re-evaluate our emissions and, where possible, minimize the emissions. In this way we ensure compliance with the latest legislation.

For emissions to air, only NO_x is above the register threshold. No separate targets are set for NO_x as this is a combustion emission that will decrease in line with our targets to reduce our Scope 1 emissions from burning fossil fuels. We collect and consolidate data quarterly, in line with all local permitting regulations. The new data can be found in the ESG Factsheet on page 61.

At Nobian, we also have a Pollution Reduction Policy to protect the environment and public health by controlling, preventing, and minimizing the environmental impact of our activities and products. The policy aims to minimize operational emissions of pollutants to air and water, prevent emissions of pollutants to soil and groundwater, prevent pollution incidents and emergencies, and control and limit impacts on people and the environment. We also aim to substitute and minimize the use of substances of concern and to phase out substances of very high concern where safer alternatives are available.

In March 2024, a brine spill occurred due to a failure in the transport pipeline between Delfzijl and Zuidwending. Remediation and water treatment were carried out to reduce the impact on the environment.

4.5. Product stewardship

We recognize our role in creating a greener, more sustainable society that extends beyond manufacturing greener products. We support the aims of the European Green Deal and the EU Chemical Strategy for Sustainability.[18] We have adopted an approach of product stewardship at both company and site level. By considering product safety and sustainability throughout the value chain, we not only support regulatory compliance, but also help to develop more sustainable solutions for our customers and society.


Nobian, Frankfurt | © Nobian / Celine Paczkowski

Risk assessment for safe use

We manage around 1,600 chemical products at our production sites, including raw materials. Of these, 22 are sold in various grades and used throughout the world. Eighteen are classified under the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) as hazardous substances due to their adverse effects on health and the environment, in line with the EU regulation on classification, labeling, and packaging. The other four products are classified as non-hazardous. Each GHS-classified product has undergone a thorough hazard and risk assessment in line with Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH)[19] standards and, where applicable, the EU biocides law.[20]

The risk assessments analyze any exposure to workers, consumers, and the environment.

Any necessary measures are communicated through safety data sheets and packaging labels, according to legal requirements. We also produce customer brochures with our products' technical properties and best practice guidelines for safe handling, as well as information about regulatory compliance and associated certificates.

[18] https://ec.europa.eu/environment/strategy/chemicals-strategy_en

[19] https://www.echa.europa.eu/web/guest/regulations/reach/understanding-reach

[20] Regulation (EC) No 528/2012 concerning the placing on the market and use of biocidal products (BPR). For more information: https://echa.europa.eu/regulations/biocidal-products-regulation/understanding-bpr

All products are carefully managed to ensure they are used safely at our sites and by our customers, conforming to applicable regional, national, and international regulations and safety recommendations of our industry associations. These cover areas from safe transport to controlled waste disposal and recycling.

Our comprehensive management system is ISO 9001, 14001, and 45001 certified. It is designed to protect the environment and the health and safety of employees, contractors, and local residents from any adverse impact of chemicals and emissions, as well as other hazards arising from the operation of chemical production plants and associated logistics. We endorse the European Chemical Industry Council (Cefic) Responsible Care®[21] program.

Responsible Care®
OUR COMMITMENT TO SUSTAINABILITY

Supply chain safety

Before we supply a new industrial customer, we carry out a first-delivery check to ensure products can be safely received and refilled. We also offer safety training for its personnel.

We are committed to monitoring and investigating incidents at our own sites, reporting to our industry associations, and improving safety along the supply chain in accordance with Cefic's SQAS program.[22] To ensure professional incident management and clean-up along the supply chain, we have put in place a global emergency response system for incident support. This can range from general safety advice and product information by telephone or email (24/7) to assistance with personnel and equipment at the scene of an incident according to Cefic's Intervention in Chemical Transport Emergencies program.[23]

In 2024, no incidents occurred during the distribution of our products.[24]

As we look to the future, we remain steadfast in our commitment to advancing sustainability, safety, and compliance across all facets of our operations and within the supply chain.

Nobian, Rotterdam | ©Nobian/Studio Dijkgraaf

[21] https://cefic.org/responsible-care
[22] https://www.sqas.org
[23] https://www.ice-chem.org
[24] Not part of assurance by DNV.

∧ *Michael Koenig, CEO Nobian (left) and Martin Christensen, CEO Gas Storage Denmark.*

< *The delegation at the high-level conference, part of the 'Dutch-Danish Forum on Hydrogen Cooperation: National Strategies and Business Opportunities', included His Majesty King Willem-Alexander, sixth from the right, Minister Sophie Hermans of the Ministry of Climate and Green Growth, to his right, and Michael Koenig, CEO Nobian, between them.*

Case study

Exploring collaborative energy storage opportunities in Denmark

Gas Storage Denmark and Nobian have signed a Memorandum of Understanding to explore the development of energy storage caverns in Denmark. This agreement was formalized during the working visit of His Majesty King Willem-Alexander of the Netherlands to Denmark and Norway on November 12–13, 2024, in the presence of His Majesty King Frederik X of Denmark and His Royal Highness Crown Prince Haakon of Norway.

The collaboration between Gas Storage Denmark and Nobian Dansk Salt aims to enhance Denmark's energy infrastructure, focusing on the transition to renewable energy. Both companies are exploring partnership opportunities to develop energy storage caverns, including hydrogen storage, which is essential for stabilizing the power grid and enabling a hydrogen market in Denmark. By combining our knowledge and unique expertise, we seek to create large-scale hydrogen storage solutions that will help maintain a balance between electricity production and consumption, particularly as the share of variable energy sources like wind and solar increases.

Nobian aims to leverage its experience in salt production to deliver these solutions, aligning with its role as a key enabler and balancing partner in green energy production, storage, and grid stability. This partnership focuses on exploring energy storage solutions that will contribute to the green transition and the development of a sustainable hydrogen economy in Denmark. By developing hydrogen storage caverns, we aim to support Denmark's renewable energy potential and position the country as a leading hub for hydrogen in the Nordic region.

Care

Care for people and communities

With ‘care’ as one of our core values, we are committed to providing a safe and healthy workplace for our employees, making sure everyone returns home safely every day.
We strive for active and meaningful engagement with our people as well as the communities in which we operate.
We promote an open dialogue, knowledge sharing, and we support local initiatives.

GROW GREENER TOGETHER

Care KPIs and targets

Care

Health & Safety

- Reduce safety incidents year-on-year towards zero people and process incidents
- Implement vitality program to increase focus on health (mental and physical) of our employees

Community

- Maintain the active local community program at all sites
- Have an active local community program for all new salt mining projects from start of salt production

People

- Launch employee engagement survey 2024 and act on outcome
- Act on the Nobian Inclusion and Diversity plan for 2024

5.1. Health and safety

At Nobian, we want to ensure that everyone returns home safely every day. We are striving to deliver the highest standards of health and safety. And we work tirelessly to achieve zero injuries, zero waste and zero harm for the benefit of our employees, contractors, customers, neighbors, and the planet.

We understand the key to improving health and safety performance lies in embedding safety in our culture at every level, and robust processes that are regularly reviewed to identify areas for improvement. We need to ensure our employees have the knowledge and skills to apply these processes consistently across each of our sites, together with our Life-Saving Rules, which help prevent serious injury to employees, contractors, and visitors.

People safety

We consciously work every day to provide a safe and healthy workplace for our employees and contractors. 2024 proved to be a challenging year for our safety performance compared to previous years, leading to an increase in reportable injuries. This has reinforced our commitment to continuous improvement.

In response, each of our locations has developed Safety Step Up plans to strengthen leadership presence in the field, improve hazard awareness, and retrain all employees on the risks, procedures, and how to influence safety behavior. We are expanding company-wide learning from incidents to prevent recurrence, and collaborating with our contractors on key safety initiatives.

At Nobian we encourage every colleague and contractor to report hazards and near misses, as these leading indicators help us proactively create safer workplaces by taking action to prevent injuries. This reporting also increases overall safety awareness and strengthens our safety culture. Our Behavior-Based Safety (BBS) program is implemented at all Nobian production sites, and we actively encourage all personnel to identify unsafe behaviors.

All employees, from the shop floor to leaders, are involved in conversations and dialogues that improve safety by promoting behavioral change. Improvement proposals and employee or contractor feedback are incorporated into the program and used to continually improve site safety. To further strengthen the program's foundations, we reintroduced an updated awareness e-learning for all new employees at Nobian.

An important aspect of our safety systems is learning from incidents, hazards, and near misses. We consistently analyze trends from reported cases to identify patterns and take preventive actions. Through our monthly Incident Learning Call with managers, operational experts, and safety specialists

Drilling location near Nobian Hengelo | ©Nobian/Studio Dijkgraaf

Nobian, Bitterfeld | ©Nobian/Celine Paczkowski

across all departments and sites, we ensure that lessons learned are shared widely, and corrective measures are effectively implemented. By closing the loop on incident prevention, we work towards continuous safety improvement and a stronger safety culture.

Our health and safety performance is monitored through KPIs and third-party verification of compliance with relevant safety standards. Total incident rate (TIR) and lost time injury rate (LTIR) for employees, temporary workers, and contractors are the main KPIs for people safety. The data for these three groups is combined and can be found in the ESG Factsheet on page 61.

Safety Day

Our annual Safety Day is a company-wide tradition that aims to increase safety awareness and engagement, enabling people to share expertise, and promote hazard recognition. It is also an opportunity to celebrate our achievements and reaffirm our promise to do whatever it takes to ensure everyone gets home safely, every day.

Our sites and offices plan exciting programs to engage everyone working with us, including our annual Safety Day award and the company-wide Safety Day Quiz. Our Leadership Team actively participates at every site.

Read more about our initiatives and experiences around Safety Day 2024 on page 46.

Worker health

We are committed to safeguarding the health and well-being of everyone working at our sites. That's why we have implemented site-specific health management systems to proactively identify and reduce the risk of occupational health hazards. The risks vary according to the type of work, but hazards are typically categorized as being physical, chemical, biological, ergonomic, or organizational.

Each of our production sites undergoes a Nobian Health Risk Assessment that meets local regulatory standards. Based on the outcome, we develop improvement plans to address any health concerns and enhance risk exposure control measures, following the hierarchy of controls. This may involve phasing out or substituting hazardous substances, implementing technology to control worker exposure, integrating risk assessments into long-term health studies, or implementing (personal) protective equipment and evaluation of alternative materials or processes.

To ensure effectiveness, we conduct industrial hygiene monitoring programs with qualified professionals and third-party experts overseeing sampling and testing strategies.

Beyond workplace safety, we also prioritize our employees' personal health and well-being. We encourage each site to promote health and wellness activities, such as initiatives that promote the benefits of exercise or raise awareness of unhealthy lifestyle choices. At our locations in the Netherlands, a mobile app was introduced to make these initiatives easily accessible for every employee.

All employees have access to on-site medical services, and we have procedures in place for medical emergencies, laid out in our Emergency Response Policy.

Contractor safety

At Nobian, safety is a shared responsibility. We recognize that our contractors play a crucial role in maintaining a safe working environment, and their insights are invaluable in strengthening our safety culture. That's why we actively encourage contractors to challenge us on safety performance and provide feedback on how we can improve together.

We choose to work with contractors who uphold the same safety standards and values outlined in our Business Partner Code of Conduct and Life-Saving Rules. In the Netherlands we evaluate contractor safety during the tendering process through ISNetworld, setting clear expectations from the start.

Nobian, Hengelo | ©Nobian/Studio Dijkgraaf

In 2024, we took this commitment further by collaborating with contractors on key safety initiatives. We focused on enhancing safe working practices around scaffolding, reinforcing risk awareness, and proper procedures. Additionally, we followed up on the results of the safety culture survey we conducted among our contractors in the Netherlands in 2023. Their feedback has helped us identify areas for improvement.


Nobian, Frankfurt | © Nobian / Celine Paczkowski

Process safety

Process safety is essential to protecting people, the environment, and our business. Our approach is supported by a risk-based process safety management framework that aligns with industry best practices and international standards. This framework is designed to prevent process safety events that could lead to injury, environmental harm, asset damage, or disruption to our communities.

At the core of our efforts is the pursuit of zero injuries, zero waste, and zero harm. To achieve this, we have implemented a comprehensive five-year process safety program that embeds high-impact, activity-based work processes across our operations. This program not only strengthens risk management but also enhances operational resilience and reliability.

As part of our five-year program, we reintroduced the 'Process Safety Fundamentals' initiative to serve as the cornerstone of our process safety culture, ensuring that every person understands and applies the set of basic principles (dos and don'ts). By reinforcing these fundamental principles and emphasizing existing good practices, we strengthen our ability to prevent process safety events.

Empowering our people is key to driving and delivering process safety excellence. Through continuous learning, training, and knowledge sharing, we equip our teams with the expertise needed to proactively identify and mitigate risks. Additionally, we are enhancing our focus on leading process safety indicators, ensuring that we move beyond reactive measures to a more predictive and preventive safety culture.

Safety management systems and corporate HSE&S audits

Our Health, Safety, Environment & Security (HSE&S) management system aligns with globally recognized standards ISO 14001 and ISO 45001, ensuring continuous improvement of environmental and workplace safety. Every one of our production sites is fully certified under these standards, reinforcing our commitment to protecting employees, contractors, and the communities around us.

To maintain and enhance safety performance, we conduct internal HSE audits including process safety reviews on a structured three-year cycle across all production sites. These audits, executed in line with our Nobian HSE&S procedures, are designed to drive continuous improvement and ensure internal compliance. We actively track progress as we implement their findings.

Nobian's recent Safety Day brought together employees, contractors, and the Nobian Leadership Team for engaging and educational activities that emphasized our dedication to maintaining a safe work environment.

Case study

Safety Day 2024: Strengthening our commitment to workplace safety

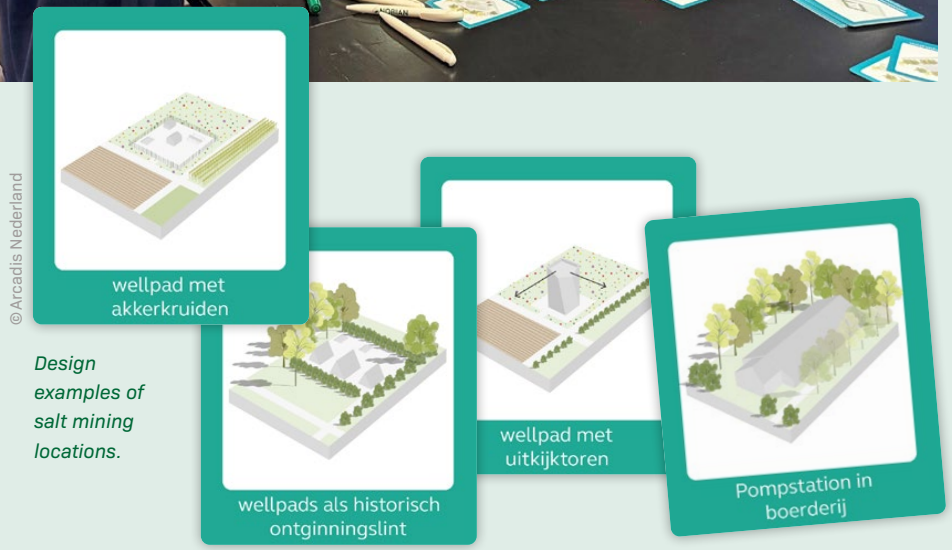
Safety Day 2024 once again demonstrated our collective commitment to fostering a safe and secure workplace as our core value. Designed to promote safety awareness and collaboration, this year's event brought together employees, contractors, and the Nobian Leadership Team for an inspiring day of activities and discussions at all our sites.

The theme for 2024, 'What will you do today to improve safety?', emphasized personal accountability and proactive behavior in maintaining a safe workplace. By encouraging everyone to reflect on their individual role in safety, this highlights how small, consistent actions, such as reporting hazards, following safety protocols, wearing the correct personal protective equipment, and helping colleagues, can collectively make a significant impact.

The event featured a range of engaging activities organized by our locations tailored around the theme. Practical safety training sessions, such as CPR training and fire extinguisher practice, empowered employees with essential safety skills. Interactive workshops, including team exercises and simulations, encouraged collaboration and highlighted best practices in risk management. Additionally, a guest speaker emphasized the importance of psychological safety and open communication in building trust and team cohesion. Safety Day is a reminder that safety is more than a one-day focus: it is a continuous priority.

We encourage everyone to ask themselves daily: *"What can I do today to improve safety?"* By staying attentive, adhering to safety protocols, and addressing potential risks, we can create a safer workplace for all.

Design session Zuiderveen | © Nobian



© Arcadis Nederland

Design examples of salt mining locations.

Case study

Design sessions with the community

In Groningen we organized design sessions with local communities to support the development of new salt extraction sites. These new caverns are planned to ensure the continued production of salt in Groningen's Zuiderveen and Zuidwending areas as well as Delfzijl. They are needed because other brine fields are entering their final production phases.

For each project, Nobian involves the local community in a participatory process. With these sessions, we aim to gather the community's ideas and preferences about where the potential new salt extraction sites should be located and what they should look like. This information will be used in the first conceptual design, and later the final design. The final design also depends on the outcome of other relevant studies, including water management, subsoil, and potential nuisance.

In addition to informing and engaging with the community through information sessions and home visits, we also invite community members to participate in design sessions during this process.

Several design sessions were held in 2024 for the Zuiderveen and Zuidwending areas. Each was facilitated by an external agency to ensure the ideas of the residents were properly and independently collected. Examples of the ideas collected include combining wellpads (overhead locations), adding ecological value, looking at historical elements, maintaining sight lines, and creating a forest bank on the western side of Heeresmeer.

In 2025, we will conduct various studies to finalize the design for each salt extraction field. We will inform the community should changes be made. The final design and permit application for the new salt mining locations will be shared with the community.

5.2. Engaging with our communities

Our approach to community engagement starts with building strong relationships with neighboring stakeholders through timely and clear communication. We explain our activities during open house events and involve stakeholders in our HSE guidelines, focusing on emergency response procedures and raising community awareness. We value being involved with and a part of the communities in which we operate, such as through our Further Together community program and various local sponsorships.

Salt mining

Salt mining in the Netherlands and Denmark takes place outside the perimeter of the production sites. We maintain an ongoing dialogue with the communities around these fields, proactively engaging with municipalities, residents, and local interest groups to stimulate open discussion about our activities. We value direct contact, such as through community meetings, weekly walk-in mornings, and 'kitchen table' conversations. These activities are also reflected in the participation processes we undertake with residents for new salt mining projects.

During the Open Day at one of our salt extraction sites in Twente, the Netherlands, we showcased the activities performed at the site, explained the salt production process, highlighted the products that use our salt as a base, and described how we close caverns.

Salt extraction location near Enschede | © Nobian

We take great care to make our mining operations more sustainable and transparent. This process is never finished, as new insights are frequently applied and discussed with relevant stakeholders. We operate an active planning and monitoring program throughout the lifecycles of wells and salt caverns that includes continuous measuring of caverns and the effects of salt mining such as potential microseismic activity and subsidence. We regularly discuss and share developments with municipalities, regional and local authorities, and stakeholders and supervisors in regional steering groups.

We organized two open days in 2024. In Groningen, the open day was held at our Heiligerlee production site, giving people the opportunity to get a 'behind the scenes' look. In Twente, the event was held at a salt mining location in its closing phase, during which the site was being restored to its former state.

Another example of community engagement is organizing several design sessions with citizens in the province of Groningen for the planned salt mining fields in Zuiderveen and Zuidwending-Oost. For more information, see the case study *Design sessions with the community* on page 47.

Salt extraction location near Enschede | © Nobian

In addition to supporting local initiatives through our Go Further Together community program near all our existing salt mining fields, we expect to see the independent community fund become operational in Haaksbergen in 2025. This fund will support local initiatives in the area around our new salt extraction in Haaksbergen, which is under construction.

We continue to collaborate with local stakeholders to better understand how to give back to the communities surrounding our salt mining fields. This remains a top priority in 2025.

Case study

Engaging with the community in Denmark

Our commitment to local development lies in fostering strong relationships and supporting the communities around all our sites, where we strive to make a positive impact through targeted initiatives. Our Danish site, for example, has proudly sponsored the Mariager Saltcenter, an attraction dedicated to exploring the history and science of salt, since it opened in 1998. Visitors can experience a variety of activities, including a simulated salt mine and educational exhibits about salt's role in history and daily life. We have provided additional support to expand and renovate the center, including to develop a new bathing area and improved facilities.

The expansion of Mariager Saltcenter will create new opportunities for youth initiatives, including a job training center to support young people facing challenges entering the labor market, equipping them with the skills needed for employment or further education. By providing a nurturing environment, we aim to help young people develop the personal skills necessary for their future success. We also encourage other local companies to join us in this collaborative effort to enhance social impact and create lasting benefits for the community both now and for future generations.

Mariager Saltcenter and its staff.

Nobian, Rotterdam | © Nobian

Case study

Empowering employees to drive environmental change through Nobian's sustainability community

Within Nobian and BOOST (our Young Professionals Network), there is strong enthusiasm for greater involvement in sustainability.

Two dedicated members of BOOST have taken the initiative to launch a sustainability community. This aims to increase engagement and sustainability visibility at all sites, support local initiatives, and inspire each other on what can be done. This effort supports the overall ambition of becoming one of the most sustainable chemical companies in Europe.

The sustainability community at Nobian serves as a platform for all employees to explore sustainability topics, regardless of their daily responsibilities. The community has garnered positive initial feedback, with over 60 participants actively engaging and expressing enthusiasm for more content. This response underscores the community's ability to deepen understanding and nurture a sustainability-focused culture across the entire organization.

The BOOST Walk, organized every two months by our Young Professionals Network, brings together diverse talents to keep our Rotterdam site clean and green – exemplifying our commitment to community and sustainability.

Nobian, Delfzijl | © Nobian

5.3. People

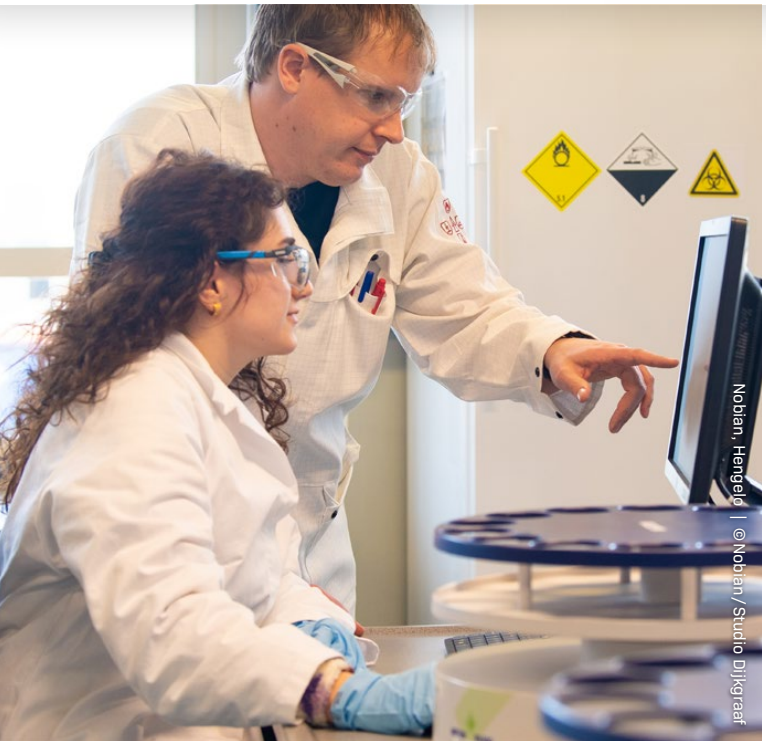
Our people

In our increasingly complex and fast-paced world, we recognize that engaged, empowered, healthy, and happy employees are essential to cultivating a competitive, innovative, safe, and successful organization.

We aim to achieve sustainable business growth while making a positive impact on people's everyday lives, both through our actions and the essential products we produce.

Our objective is to establish an equal, diverse, and inclusive workforce where our people are both physically and mentally safe and feel valued for their contributions and identities. To accomplish this, we advocate an open culture and acknowledge the significance of investing in the development and training of our people.

We support, develop, listen to, and empower our employees and local communities. We also engage and collaborate with customers, partner companies, universities, industry peers, and governments. These relationships enable us to drive growth while continuously evolving into a safer, more sustainable, and innovative organization.


Nobian, Hengelo | ©Nobian/Studio Dijkgraaf

In 2024, we further reinforced our Nobian values and behaviors (see 'Our values' on page 58). Among these, the principles of 'care' and 'safety' are particularly dedicated to the well-being of our employees and reflect our commitment to being a considerate partner to our customers, stakeholders, and the communities in which we operate.

Our core values underpin the performance-driven culture we foster, providing a robust framework that empowers our employees and enables us to realize our company's purpose and strategic objectives.

Diversity, equity, and inclusion

Diversity, equity, and inclusion (DE&I) are important to our organization. Our success depends on attracting, developing, and retaining the very best talent. At Nobian, we see every person as an opportunity for innovation and growth, and cultivate an environment where behaviors and social norms are welcoming and respectful, and where employees have equal access to resources and opportunities.

Nobian is committed to providing equal employment opportunities and is resolved not to discriminate in the workplace or against job applicants, customers, or business partners.

As an example of our inclusive culture, we have set up a talent network focusing on our young professionals, BOOST. We are eager to learn from their unique perspectives, while supporting their professional and personal development. In doing so, we hope to retain our young people as fulfilled and valuable members of our organization. The network's activities include knowledge sharing, sport, and sustainability initiatives (see page 51), and it is highly appreciated among members.

In 2024, we made significant progress in DE&I by uniting individuals from various parts of our organization to identify and implement initiatives that put our DE&I Policy into practice. The DE&I Executive Committee is composed of employee representatives from all locations, and aims to ensure the entire organization has a stronger voice on crucial DE&I matters and actions.

Enhancing and supporting workforce diversity is a continuous effort. Gender diversity in senior positions currently stands at 6.8%. Overall, gender diversity increased from 14.8% in 2023 to 15.4% in 2024. The Nobian Leadership Team consists of three Dutch and four German members.

In 2024, our company undertook several DE&I initiatives to foster a more inclusive and equitable workplace. We conducted a series of DE&I workshops, including sessions on unconscious bias and psychological safety, and privilege walk exercises. These are designed to raise awareness and foster a more inclusive environment within the organization. The DE&I Committee played a crucial role in supporting and informing the Executive Committee about DE&I initiatives, and in aligning with sponsors and HR on DE&I activities.

In addition, we focused on integrating DE&I principles into our recruiting and hiring processes by establishing clear guidelines, anti-discrimination and harassment commitments, and providing training on pay equity and psychological safety. We engaged employees through various newsletters to promote DE&I awareness and actions.


Nobian, Bitterfeld | ©Nobian/ Celine Paczkowski

Implementation of the DE&I Policy aims to ensure equal opportunities for all employees, promote diversity at all levels of the organization, and create an inclusive culture where every voice is heard. Whilst we have made meaningful and valued progress, we will always remain in active pursuit of sustaining and further enhancing our effectiveness in this regard.

In 2024, we launched our employee engagement survey, including questions on inclusion, mental safety, and health. Actions are determined with employee input, as their feedback is crucial to ensuring focus on the most relevant challenges. Employee consultation is integral to our efforts to enhance employee motivation, engagement, and well-being.

Social dialogue and working conditions

Our structured communication between employer and employee representatives involves monthly discussions, consultations, dialogue, and negotiations on economic and social topics.
In each country, central and local works councils meet monthly, representing 85.5% of our employees. In the Netherlands, we hold quarterly updates with the Dutch Unions and the Advisory Council.

Working conditions are negotiated through collective labor agreements, covering 97.2% of employees. These include working hours, social benefits, wages, policies, and mutual responsibilities. This clear dialogue and defined working conditions foster an engaged workplace and strong employer–employee relationships.

Career development and rewards

In 2024, over 98% of employees completed a performance and career development cycle.
All employees are required to complete mandatory e-learning training such as the Code of Conduct and Life-Saving Rules. In addition, employees may participate in job-related career and skills training. It is estimated that more than 50% of employees have participated in such training, averaging 8 hours per employee.

All direct and indirect employees are included in the living wage benchmarking analysis. As an employer in the chemical industry, we ensure that salaries exceed the minimum wage in all countries where we operate.

The average unadjusted gender pay gap is 0.53%, and the ratio of the annual total compensation for the highest-paid individual to the median annual total compensation for all employees is 32.25.

Nobian, Delfzijl | © Nobian

5.4. Sustainable sourcing

We believe that striving for a sustainable future means being a safe and reliable partner for customers, employees, business partners, and communities. And, in doing so, we identify potential sustainability issues from the first stages of supplier selection, eliminating risks and seeking continuous improvement to our sustainability performance measures.

We aim to select suppliers who share and support our standards. All of Nobian's business partners, including suppliers of (raw) materials and services, agreed to the Nobian Business Partner Code of Conduct. We also ask all suppliers to adhere to local and European legislative requirements, including the REACH regulations, through mandatory acknowledgment in all new contracts and in all purchase order terms and conditions. More information on the Code of Business Conduct & Ethics is given in section 5.5.

We actively engage with our business partners to jointly improve our sustainability performance. To this end we have developed a comprehensive Supplier Sustainability Risk Assessment by considering: the supplier's contribution to our Scope 3 CO_2 emissions, their plans to reduce the carbon footprint of their

materials or services in line with Nobian's ambitions, and their EcoVadis score or equivalent scoring from a reputable sustainability rating agency. Through this assessment, we classify our business partners as having a negative, neutral or positive impact on Nobian's sustainability ambitions.

We engage with our suppliers with neutral and negative impact to ensure environmental and social practices are in line with Nobian's ambitions. These suppliers are asked to jointly search for areas for improvement, for example, by setting up plans to reduce the carbon footprint of their materials or services in line with Nobian's ambitions; by improving knowledge through training; or devising plans to improve their sustainability rating. This includes performing on-site audits.

The Supplier Assessment is evaluated twice a year to track progress and is fully embedded in accordance with our Sustainable Procurement Policy. If our suppliers have a negative or neutral score, we actively increase our engagement with them. Suppliers performing strongly on sustainability are more often selected, or chosen for increased orders, while consistently weak performers are more likely to lose their position.

The Scope 3 categories within the remit of our procurement department are Category 1 *purchased goods and services,*[25] Category 2 *capital goods,* Category 3 *fuel and energy-related activities,* Category 4 *upstream transport and distribution,* Category 9 *downstream transportation and distribution,* and Category 13 *downstream-leased assets.*

In 2024 we assessed our suppliers for raw materials, energy, and transport in the abovementioned categories; representing 760 kton CO_2-eq based on 2023 data. This is 94% of the Scope 3 emissions in these categories, representing 47% of our supplier base. Of these, no suppliers were classified as negative and 16% as neutral for which we have corrective actions in place and are actively monitoring. In 2024 eighteen of our targeted suppliers have gone through on-site sustainability audits, where we discussed sustainability topics in-depth.

Finally, all Nobian's procurement employees completed the annual sustainability training in 2024, which forms one of their personal objectives.


Nobian, Ibbenbüren | © Nobian / Studio Dijkgraaf

[25] Excluding tolling materials.

Memberships and associations

The best way of becoming a force for good and creating a positive impact through sustainability is by working together. That is why we strongly believe in collaborations and partnerships with other expert institutions and organizations. To this end, Nobian is a member of:

5.5. Sustainability memberships and compliance

Policy engagement and memberships

We actively engage with industry and trade associations to take a constructive and proactive approach to relevant EU initiatives. We bring expertise and solutions on topics such as raw materials strategy, a vision for salt extraction energy, carbon reduction, and circular chemistry. This involvement helps further our sustainability objectives and ensures public policy decisions are grounded in sound data and science. Our engagements involve a diverse set of stakeholders focused on chemical-related climate mitigation and adaptation issues, such as product design for energy efficiency, material safety, energy management in business and manufacturing operations, and industry collaboration.

Managing engagement on public affairs

All direct and indirect engagement with policy makers and related organizations follows a formal process managed by our Communication and Public Affairs Team. This covers the scope and business impact of specific policy issues and is integrated into annual business review meetings and our risk management assessment process. This process ensures that our public affairs activities are connected to our business strategy. In line with the Nobian Business Code of Conduct & Ethics and our company policies, we do not provide financial contributions or endorsements to political parties or politicians.

Advocacy actions related to sustainability

We seek to engage constructively with governments, regulators, and legislators on proposed policies relevant to our business. These can cover a wide range of areas, from tax and employment issues to safety and handling chemicals. We seek to support policies that are sufficient, clear, stable, predictable, comprehensive, economically efficient, well designed, and that deliver society's goals at the least cost. We also support policies that align with our position in areas such as our sustainability ambitions.

We have actively engaged with industry and trade associations to take a constructive and proactive approach to relevant EU sustainability and industry initiatives, such as the EU Clean Industrial Deal, critical raw materials, and the EU Chemicals Strategy for Sustainability. We not only focus on the risks and challenges for our industry, but also on opportunities via new business models and innovation and actively drive a value chain approach. Through our memberships with several associations in the EU and the Netherlands, we

have also actively engaged with policy makers on creating the right conditions and policy approach for energy storage and green hydrogen.

Code of Business Conduct & Ethics

Nobian's Code of Business Conduct & Ethics requires employees to always act ethically and comply with laws on anti-bribery, anti-corruption, anti-trust/competition, data protection, and economic sanctions. The Code applies to all employees, contractors and vendors and, as part of our commitment to a sustainable future, everyone must complete at least one compliance training session on ethical business conduct each year. 95% of all employees completed the 2024 training.

Our compliance program helps our employees and contractors understand and abide by our high standards of ethical business conduct, comply with our legal and regulatory requirements, and embody our values. The program consists of training, policies and procedures, external party due diligence and monitoring, and investigating and remediating concerns of unethical, illegal, or inappropriate conduct. This commitment to compliance and ethics is supported at the highest levels of our business, with the Board of Directors and audit committee receiving regular updates from our General Counsel and Chief Compliance Officer.

In 2024 we had three confirmed compliance cases that were reported via *SpeakUp!*. Each separate case was handled individually and with full confidentiality for the involved employees. Cases are internally classified so trends, if applicable, can be identified in an early stage. Next to this, we had zero confirmed Corruption and zero Information Security incidents with material impact.

Our values

Nobian has four company values: Safety, Excellence, Ownership, and Care. These are widely known throughout the business and are actively used in our strategy and day-to-day activities, such as town hall meetings and performance appraisals. They continue to guide our behavior and are a crucial part of our identity and company culture. The values demonstrate what we stand for – as a corporate citizen, a business partner, and an employer. They guide our relationships with our partners, suppliers, and stakeholders.

Business partners

We require our suppliers to adhere to our Business Partner Code of Business Conduct & Ethics. We also require certain third parties, such as customers and suppliers operating in sensitive countries, to undergo a due diligence process where they provide information on their ownership, compliance programs, and any past relevant legal

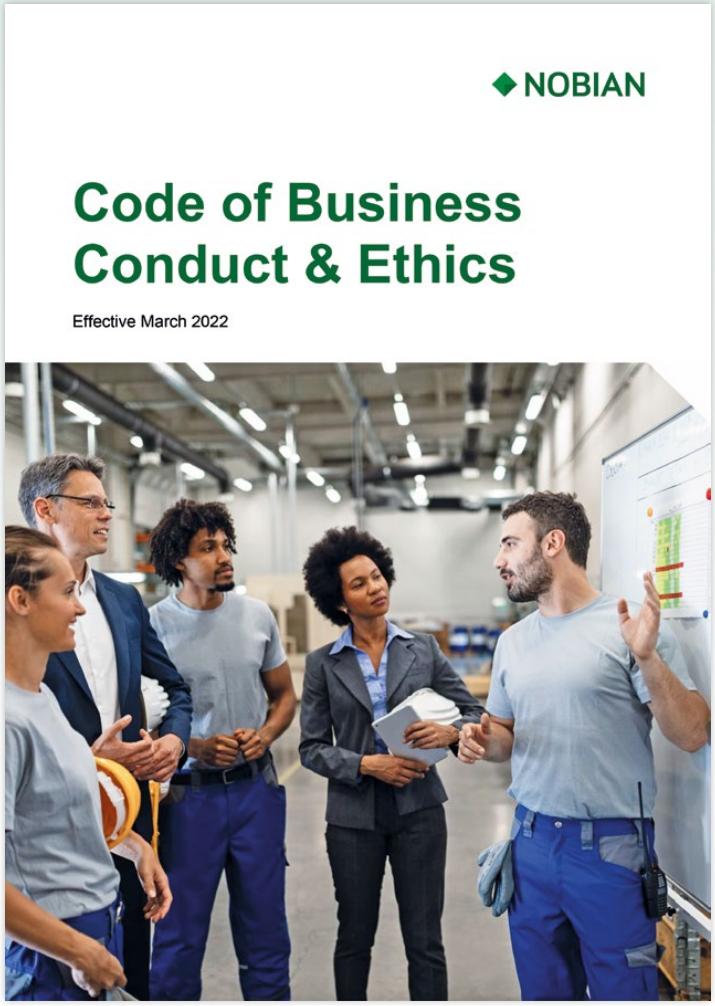
and regulatory issues, including economic sanctions. They are monitored through an online platform, and we receive daily updates of any sanctions, regulatory fines, or adverse media. Business partners also have access to our ethics reporting hotline, *SpeakUp!*.

Reporting concerns: *SpeakUp!*

Employees, suppliers, customers, and other business partners can report any suspected policy violations, inappropriate behavior, and illegal or unethical practices through *SpeakUp!*, our confidential reporting hotline.

SpeakUp! is a direct channel that enables people to anonymously highlight their concerns, ensuring issues are heard and addressed in a timely manner.

To ensure everyone is aware of *SpeakUp!*, it is publicized on our intranet, our external website, and at every office and manufacturing site, along with contact information. It is also highlighted in our Code of Business Conduct & Ethics and employees are instructed on its use and about the protection they are afforded under our Nonretaliation Policy. Reports to *SpeakUp!* can be made anonymously in English, German, Dutch, or Danish.



The SpeakUp! procedure is also highlighted in Nobian's Code of Business Conduct & Ethics.

ESG Factsheet

GROW GREENER TOGETHER

Environment 1	Unit	2020 (baseline)	2021	2022	2023	2024	% change 2024 vs. 2020
Scope 1 greenhouse gas emissions							
Scope 1 emissions	kton CO_2-eq	713.7	791.7	776.1	699.0	600.2	-15.9%
Scope 1 emissions under regulated emissions trading schemes (ETS)	%	97.9	98.3	98.2	98.2	97.9	
Scope 2 greenhouse gas emissions							
Scope 2 emissions	kton CO_2-eq	971.8	1,006.0	575.9	570.8	247.9	-74.5%
Scope 3 greenhouse gas emissions							
Total Scope 3 emissions[26]	kton CO_2-eq	1,205	1,457	1,265	1,140	1,146	-5.0%
Category 1: Purchased goods and services	kton CO_2-eq	402.0	442.5	406.7	311.4	354.4	-11.8%
Category 2: Capital goods	kton CO_2-eq	9.4	10.0	10.6	11.3	11.9	26.7%
Category 3: Fuel and energy-related activities	kton CO_2-eq	330.8	430.0	315.7	363.1	267.3	-19.2%
Category 4: Upstream transport and distribution	kton CO_2-eq	13.1	14.5	12.3	10.5	11.7	-10.3%
Category 5: Waste generated in operations	kton CO_2-eq	5.2	4.3	4.3	5.8	4.3	-17.2%
Category 6: Business travel	kton CO_2-eq	0.3	0.3	0.3	0.5	0.5	75.5%
Category 7: Employee commuting	kton CO_2-eq	5.6	6.5	5.8	6.2	6.6	17.7%
Category 9: Downstream transportation and distribution	kton CO_2-eq	166.3	158.7	137.4	142.3	126.4	-24.0%
Category 10 and 11: Processing of sold products and use of sold products	kton CO_2-eq	60.2	138.9	110.1	110.4	157.0	160.6%
Category 12: End-of-life treatment of sold products	kton CO_2-eq	210.4	249.1	260.4	176.7	203.4	-3.3%
Category 13: Downstream-leased assets	kton CO_2-eq	1.9	1.8	1.0	2.01	2.01	7.2%
Total greenhouse gas emissions							
Total emissions: Scope 1 and 2	kton CO_2-eq	1,685	1,798	1,352	1,270	848	-49.7%
Total emissions: Scope 1, 2 and 3	kton CO_2-eq	2,891	3,254	2,617	2,410	1,994	-31.0%
Direct biogenic emissions	kton CO_2-eq	n.a.	n.a.	n.a.	n.a.	57	
Energy management							
Total energy consumption	GWh	6,239	6,129	5,893	5,075	5,504	-11.8%
Percentage renewable energy	%	28.9	35.5	35.7	40.8	57.0	
Percentage renewable electricity	%	18.8	35.3	37.9	48.4	71.6	
Percentage renewable steam	%	37.1	35.7	33.9	34.1	44.4	
% grid energy	%	30.3	41.6	31.9	38.5	38.2	
Total self-generated electricity	GWh	978	1,219	1,076	962.3	843	-13.8%
Total self-generated steam	GWh	2,592	2,439	2,667	2,319.7	1,998	-22.9%

[26] Category 8 *Upstream-leased assets*, Category 14 *Franchises*, Category 15 *Investments* are not applicable for Nobian.
Total Scope 3 Upstream greenhouse gas emissions (Category 1-8) 656.7 kton CO_2-eq.
Total Scope 3 Downstream greenhouse gas emissions (Category 9-15) 488.8 kton CO_2-eq.

Environment 2

	Unit	2020 (baseline)	2021	2022	2023	2024	% change 2024 vs. 2020
Emissions to air							
NO_x absolute emissions	ton	563	608	545	421	347	-38.4%
Water management							
Freshwater intake	1,000 m³	41,122	37,604	37,210	33,155	33,593	-18.3%
of which drinking water intake	1,000 m³	1,661	1,756	1,686	1,360	1,605	-3.4%
Fresh water discharge to fresh water environment or third party	1,000 m³	27,408	23,869	24,282	22,655	21,198	-22.7%
Fresh water consumption	1,000 m³	13,714	13,735	12,928	10,499	12,394	-9.6%
Fresh water consumption in stressed regions	1,000 m³	306	431	311	318	232	-24.1%
Emissions to water							
Chlorides	ton	n.a.	n.a.	n.a.	n.a.	205,909	
Copper	ton	n.a.	n.a.	n.a.	n.a.	0.127	
Nickel	ton	n.a.	n.a.	n.a.	n.a.	0.209	
Total Organic Carbon (TOC)	ton	34.7	33.4	32.5	38.3	39.5	13.7%
Waste management							
Total waste	ton	11,586	12,023	9,206	13,758	10,565	-8.8%
Reusable hazardous waste	ton	4,468	6,073	3,471	6,772	4,328	-3.1%
Non-reusable hazardous waste	ton	1,873	1,315	1,387	2,143	1,740	-7.1%
of which disposed to landfill	ton	180.9	47.0	155.9	150.8	56.4	-68.8%
Total hazardous waste	ton	6,341	7,389	4,859	8,915	6,068	-4.3%
Reusable non-hazardous waste	ton	3,387	2,452	2,108	3,055	3,133	-7.5%
Non-reusable non-hazardous waste	ton	1,859	2,182	2,242	1,788	1,364	-26.6%
Total non-hazardous waste	ton	5,246	4,635	4,350	4,843	4,497	-14.3%
Percentage reusable hazardous waste	%	70.5	82.2	71.4	76.0	71.3	
Percentage reusable non-hazardous waste	%	64.6	52.9	48.5	63.1	69.7	
Production and revenue							
Total sales volume	kton	8,722	8,880	7,535	6,593	7,285	-16.5%
Management systems							
Manufacturing sites with ISO 14001/RC-14001 certifications	%	100	100	100	100	100	

Social	Unit	2020 (Baseline)	2021	2022	2023	2024
Workforce data						
Global headcount Nobian employees	#		1,541	1,527	1,622	1,660
Gender diversity in the workforce (M/F)	%		85/15	86/14	85/15	85/15
Gender diversity in senior positions (M/F)	%		89/11	86/14	91/9	93/7
Employee attrition rate (voluntary and involuntary)	%		9.0	12.9	7.7	7.5
People safety						
Total reportable incident rate (TRR) for employees, temporary workers and contractors	per 1,000,000 hours worked	1.09	0.51	1.07	2.46	2.81
Lost time injury rate (LTIR) for employees, temporary workers and contractors	per 1,000,000 hours worked	0.82	0.51	0.00	0.74	1.08
TRR for employees, temporary workers	per 1,000,000 hours worked	0.42	0.00	0.95	2.16	2.83
LTIR for employees, temporary workers	per 1,000,000 hours worked	0.42	0.00	0.00	0.43	1.21
TRR for contractors	per 1,000,000 hours worked	2.29	1.30	1.23	2.85	2.79
LTIR for contractors	per 1,000,000 hours worked	1.53	1.30	0.00	1.14	0.93
Fatalities	per 1,000,000 hours worked	0	0	0	0	0
Process safety						
Process safety incident counts - level 1	#	3	0	0	2	0
Process safety incident counts rate - level 1	per 1,000,000 hours worked	0.82	0.00	0.00	0.49	0.00
Process safety incident counts - level 2	#	3	0	0	1	2
Process safety incident counts rate - level 2	per 1,000,000 hours worked	0.82	0.00	0.00	0.25	0.43
Process safety total incident rate (PSTIR) combined	per 1,000,000 hours worked	1.64	0.00	0.00	0.74	0.43
Management systems						
% of manufacturing sites with ISO 45001 certification	%	100	100	100	100	100

Governance

	Unit	2021	2022	2023	2024
Board					
Directors	#	9	9	9	9
Average director tenure	years	0	1.0	2.0	3.0
Independent directors	#	0	0	1	1
Gender diversity (M/F)	%	100/0	100/0	89/11	89/11
Board coverage on ESG issues					
Frequency of board updates on ESG	frequency	Quarterly	Quarterly	Quarterly	Quarterly
Board oversight of climate strategy	Y/N	Y	Y	Y	Y
Leadership Team					
Members	#	6	6	7	7
Gender diversity (M/F)	%	50/50	50/50	86/14	86/14

Appendices

Basis of reporting

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SASB Index

Breakdown of greenhouse gas emissions

Sustainability governance

Impact, risks and opportunities

Independent assurance statement

GROW GREENER TOGETHER

Basis of reporting | 1

History

Nobian became a standalone company in July 2021. This is our fourth sustainability report covering our activities and achievements in 2024.

Independent assurance

This report and ESG data have been independently assured by DNV Business Assurance Germany GmbH. Details of the assurance can be found on page 79.

Reporting standards

The report and its content have been prepared in accordance with SASB reporting standards. The index of SASB metrics is provided on page 74. In addition, Nobian is in the process of complying with its sustainability reporting with the EU Corporate Sustainability Reporting Directive (CSRD) by following the relevant European Sustainability Reporting Standards (ESRS). For that purpose, some KPIs were added or adapted in 2024. These KPIs include emissions to air and water, waste and fresh water consumption. More information can be found in this appendix.

Scope and data

The scope of our environmental and health and safety data comprises our seven production sites in the Netherlands (Delfzijl, Hengelo and Rotterdam), Germany (Frankfurt, Ibbenbüren and Bitterfeld) and Denmark (Mariager). Administrative offices were not included as their contribution is negligible. For the remaining social and governance data, the full company is included. Data reported for 2024 is compared to that of 2020, 2021, 2022 and 2023. The data from 2024 has been included in the assurance process. At each production site, environmental data is reported quarterly, whereas health and safety data are reported monthly. Our data collection method and management system comply with ISO 14001 and ISO 45001.

Calculation methodology

We followed the guidelines of the SASB standard to report our environmental KPIs as well as the CSRD material metrics, as discussed on the next two pages per topic.

Scope 1 emissions

As indicated in SASB and ESRS, the Greenhouse Gas Protocol was used to calculate Scope 1 CO_2 emissions. Our Scope 1 emissions are the combustion of fossil fuels to generate steam and electricity at our energy facilities. The emission factors we used to calculate our CO_2 emissions were based on the Dutch Energy Carrier list, providing emission factors per fuel type.

Scope 2 emissions

Our Scope 2 emissions are derived from purchased steam and electricity. All electricity purchased at Nobian is market-based, indicating that Guarantees of Origins or supplier-specific grid mixes are available for each MWh purchased.

To calculate our CO_2 emissions from electricity, we used supplier-specific emission factors. For steam from combined heat and power (CHP) systems, we have used supplier-specific emission factors. If not available, the EU heat benchmark methodology[27] to calculate the CO_2 emission factor for steam produced in a boiler or CHP system with reference efficiencies for natural gas were used.

The use of steam from municipal waste incineration plays an important transitional role in our goal to become net-zero. It is the fastest and most efficient way to cut down CO_2 emissions overall, while we are also working on projects for the full electrification of our production processes. In a fully circular economy, municipal waste incineration (MWI) in general will be greatly reduced and will, ideally, eventually disappear. Until then, steam from MWI is considered a useful source of renewable steam for achieving Dutch CO_2 emissions reduction targets. There is no conclusive guidance from the greenhouse gas protocol whether and/or how to include Scope 2 MWI steam emissions. The most concrete guidance is from the widely used LCA methodology, EN 15804+A2, a standard often used for Environmental Product Declaration (EPD®). It follows the polluter pays principle (PPP), meaning CO_2 emissions are carried by waste generator and thus do not need to be included in the carbon footprint of the steam itself. In line with this guidance, Scope 2 MWI steam emissions are not included in the company's Scope 2 emissions.

Scope 3 emissions

The calculations for our Scope 3 greenhouse gas (GHG) emissions are based on the GHG Protocol, 'Corporate Value Chain (Scope 3) Accounting and Reporting Standard',[28] 'Guidance for Accounting & Reporting Corporate GHG Emissions in the Chemical Sector Value Chain'[29] and in accordance with SBTi. In the GHG protocol standard, Scope 3 emissions are divided into 15 categories. The description and approach per category can be found on the next pages. We included 50% of emissions from joint ventures, taking an equity share approach.

In cases where secondary emission factors from external sources such as Ecoinvent database, GLEC and IPCC are used, the latest version available on October 1 of the reporting year is being applied.

In 2024, the methodology for several categories of Scope 3 was updated to more accurately reflect Nobian's situation. These methodologies are explained per category in the Scope 3 section further in this appendix. Where applicable and to

[27] Guidance Document n°3 on the harmonized free allocation methodology for the EU ETS post 2020, section D.

[28] GHG protocol: 'Corporate Value Chain (Scope 3) Accounting and Reporting Standard', 2011 and 'Technical guidance for calculating Scope 3 emissions (version 1.0)', 2013.

[29] WBCSD Chemicals Sector Working Group: 'Guidance for Accounting & Reporting Corporate GHG Emissions in the Chemical Sector Value Chain', 2013.

be consistent, the methodological changes were also retrospectively applied for the years 2020 through 2023 and the data updated accordingly. The main methodology changes are in Category 1, where we assess services on actual worked hours on site by contractors, Category 2 *capital goods,* where we moved from a spent-based approach to estimation of the actual tonnage of carbon-intensive materials used in construction activities. As transport we moved transport of Nobian products between factories from Category 4 *upstream transport* to Category 9 *downstream transport*.

Energy consumption and renewable energy

Energy consumption was calculated as the total steam and electricity consumption (both internally produced and purchased) and converted to gigawatt hours. The energy reduction from return condensate of steam (hot water) usage is subtracted from the total. A certain percentage of our steam and electricity was procured from renewable sources. The renewable energy content of steam from Municipal Waste Incineration (MWI) is calculated based on the biogenic share of the waste as set annually by Rijkswaterstaat (54% in 2024). This percentage is, where needed, corrected for the possible additional fossil fuels used in the incineration process, and is used for calculating the contribution of renewable steam from MWI into our total renewable energy percentage.

Emissions to air and water

Our emissions to air and water have been brought in line with the CSRD requirements for Pollution. Some emissions do not need to be reported anymore and have been removed from the ESG Factsheet, while others were added. More information can be found in section 4.4.

Water management

An update of the calculation methodology and KPIs for fresh water consumption was made, based on the definitions in the ESRS standards. Here, fresh water consumption is defined as total fresh water intake minus fresh water discharge to a fresh water environment or third party. The new definitions were used to calculate 2024 and recalculate the years 2020–2023 values. The Aqueduct Water Risk Atlas tool from the World Resource Institute has been used to map the use of water in water stressed regions.

Waste

Waste quantities are tracked at waste processing facilities and the classification of non-reusable and reusable waste is in accordance with the Basel Convention. In previous years, we reported only production related waste. To bring the reporting in line with the ESRS definition total waste is now reported. All waste figures for the period 2020–2024 are now reported accordingly. Several KPIs on non-hazardous waste were added to provide more insight in the waste quantities.

People and process safety

The people safety data and the Process Safety Total Incident Rate (PSTIR) are calculated with the industry standard in Europe (per 1,000,000 hours worked), instead of calculating with the OHSA benchmark of 200,000 hours worked used in SASB.

Description and approach of Scope 3 categories | 1–3

Category 1
Purchased goods and services, including packaging

Category description	Extraction, production, and transportation of goods and services purchased or acquired by the reporting company in the reporting year, not otherwise included in Categories 2–8.
Type and source of data	Procurement data is used for purchased raw materials and packaging, including tolling activities and re-sale. The delivery date is used as a basis of purchased goods volumes. For third-party services, the hours worked by contractors are used to calculate the corresponding CO_2-eq emissions from commuting to the factories.
Methodologies, allocation methods and assumptions	**Raw materials and packaging** Supplier-specific emission factors are used. If these are not available emission factors from relevant datasets from the ecoinvent database (version 3.11) were used. This database is an internationally accepted database for CO_2-eq. For a few raw materials, a proxy data set was used if no exact matching dataset was available. **Services** The number of days worked by contractors for the reporting year were multiplied with the kilometers travelled per modality and a corresponding CO_2-eq emission factor from the database Ecoinvent (version 3.11). For the travel distance an average of 30 km one-way is assumed.

Category 2
Capital goods

Category description	Extraction, production, and transportation of capital goods purchased or acquired by the reporting company in the reporting year.
Type and source of data	As basis for calculation, the actual tonnages of steel (divided by type of steel alloys), titanium, concrete and fiber reinforced plastics used in the construction of large CAPEX projects are taken. The large projects represent 99% of the CO_2-eq emissions of all Nobian's CAPEX investments.
Methodologies, allocation methods and assumptions	CO_2-eq emissions per kg of material are derived from the Ecoinvent database.

Category 3
Fuel and energy-related activities
not included in Scope 1 or Scope 2

Category description	Extraction, production, and transportation of fuels and energy purchased or acquired by the reporting company in the reporting year, not already accounted for in Scope 1 or Scope 2: upstream emissions of purchased fuels, upstream emissions of purchased electricity and steam, transmission and distribution losses, generation of purchased electricity and steam that is sold to end users.
Type and source of data	Primary data on total volumes of fuel and energy sources were used.
Methodologies, allocation methods and assumptions	Emission factors from relevant datasets from the Ecoinvent database are used. These datasets represent the average Scope 3 emissions required per country or region (Europe). For transmissions and distribution losses in electricity, an average of 5% was taken, based on the US Energy Information Administration.

Description and approach of Scope 3 categories | 4–6

Category 4
Upstream transport and distribution

Category description	All **inbound** logistics of raw materials from external suppliers to own operations, both Nobian-arranged transport and supplier-arranged transport.
Type and source of data	Primary data of raw materials purchased by Nobian, including supplier locations and modality are used to calculate the transport distance to the Nobian site. Transport of Nobian products between factories is accounted for in category 9.
Methodologies, allocation methods and assumptions	The transport of raw materials that contributed to 99% of the total volumes purchased of raw materials in category 1 were included in category 4. Emission factors per ton-kilometer were derived from the GLEC framework[30] that provides logistic emissions for the European chemical industry.

Category 5
Waste generated in operations

Category description	Emissions from third-party disposal and treatment of waste generated in the reporting company's owned or controlled operations in the reporting year.
Type and source of data	Primary data on the amount of waste is used. Total waste is reported, which includes production related waste, waste from construction and demolishing as well as maintenance. Waste sent for recycling or for incineration with energy recovery was not included as the GHG protocol uses a cut-off approach where emissions from recycling will be included in the secondary system.
Methodologies, allocation methods and assumptions	Emission factors are derived from the Ecoinvent database (version 3.11 for 2024; or earlier version for previous years) per type of waste treatment and multiplied with the waste volume.

Category 6
Business travel

Category description	Transportation of employees for business-related activities in vehicles not owned or operated by Nobian.
Type and source of data	Primary data on total expense claims for flights, public transport and car drives were used. For car drives, the actual total kilometers were available and used.
Methodologies, allocation methods and assumptions	Emission factors for passenger-kilometer (pkm) for flights, train and car transport are derived from the Ecoinvent database, that provide well-to-wheel emission factors.

[30] GLEC framework & Cefic: 'Calculating GHG transport and logistics emissions for the European Chemical Industry, Module 5 of the GLEC Framework written in partnership with Cefic', September 2021, updated August 2023.

Description and approach of Scope 3 categories | 7–11[31]

Category 7
Employee commuting

Category description	Transportation of employees between their homes and their worksites in vehicles not owned or operated by Nobian.
Type and source of data	Primary data on home-work distance of Dutch employees was used.
Methodologies, allocation methods and assumptions	Emission factors for passenger-kilometer (pkm) for train and car transport are derived from Ecoinvent database, that provide well-to-wheel emission factors. Mode of transportation was assessed based on travel from home address to working location. The emissions for the Netherlands were extrapolated to Germany and Denmark based on the number of employees.

Category 9
Transport downstream

Category description	All **outbound** transportation and distribution of products sold between own operations and customers or storage locations.
Type and source of data	Primary data on total kilometers and tonnage were used. For transportation not arranged by Nobian an expert estimation was made.
Methodologies, allocation methods and assumptions	Emission factors per ton-kilometer were derived from the GLEC framework[32] that provides logistic emissions for the European chemical industry or supplier-specific emissions were available. Some emission factors for Nobian-arranged transport were corrected for payload and / or % empty running for transport where accurate data was available.

Category 10 & 11
Processing & Use of sold products

Category description	**Category 10:** Emissions generated during processing of intermediate products sold. **Category 11:** Emissions that are directly emitted during the use-phase of goods and services sold.
Type and source of data	For most products, these categories are excluded as Nobian's basic chemicals are used in a wide array of products. As such there is no longer any relation between CO_2 emissions from processing and use of sold products. For a few products that also have greenhouse gas properties, emissions were included. Primary data on sales volumes is used to calculate emissions during the further processing and use of these products.
Methodologies, allocation methods and assumptions	Expert judgment and EU-wide data was used to estimate the emissions. The Global Warming Potentials (GWPs) as provided in the 6th IPCC assessment report were used to calculate the total CO_2-eq emissions.

[31] *Category 8* ***Upstream Leased Assets*** is not applicable for Nobian.

[32] GLEC framework & Cefic: 'Calculating GHG transport and logistics emissions for the European Chemical Industry, Module 5 of the GLEC Framework written in partnership with Cefic', September 2021, updated August 2023.

Description and approach of Scope 3 categories | 12 & 13[33]

Category 12 **End-of-life treatment**	
Category description	Waste disposal and treatment of products sold at the end of their life.
Type and source of data	Primary data on the total volume of purchased raw materials, tolling materials and packaging was used.
Methodologies, allocation methods and assumptions	Based on the carbon content of the purchased raw materials/packaging, the corresponding CO_2-eq emissions per input material were calculated. The emissions of the products already reported in categories 10 and 11 were excluded.

Category 13 **Downstream-leased assets**	
Category description	Operation of assets leased by the reporting company, not included in Scope 1 and Scope 2.
Type and source of data	Primary data for downstream-leased assets for dry and liquid bulk storage was used.
Methodologies, allocation methods and assumptions	For bulk liquid storage, Scope 2 emissions from one vendor were extrapolated to the total tonnage of bulk stored. For dry bulk storage specific fuel use from one vendor was extrapolated to the total tonnage.

[33] *Categories 14* ***Franchises*** *and 15* ***Investments*** are not applicable for Nobian.

ESRS Index

NUMBER	SUBJECT	REFERENCE
ESRS E1[34]	Climate change	Section 3.1. page 19 Case study, page 24 ESG Factsheet, page 61
ESRS E2	Pollution	Section 4.4, page 36 ESG Factsheet, page 62
ESRS E3	Water and marine resources	Section 3.2, page 22 ESG Factsheet, page 62
ESRS E4	Biodiversity and ecosystems	Not material, see section 2.3, page 16
ESRS E5	Resource use and circular economy	Section 4.3, page 36
ESRS S1	Own workforce	Section 5.3, page 52 Section 5.5, page 57 ESG Factsheet, page 63
ESRS S2	Workers in the value chain	Not material, see section 2.3, page 16
ESRS S3	Affected communities	Section 5.2, page 48 Case studies, pages 47 and 50
ESRS S4	Consumers and end users	Not material, see section 2.3, page 16
ESRS G1	Business conduct	Section 5.4, page 55 Section 5.5, page 57

[34] https://xbrl.efrag.org/e-esrs/esrs-set1-2023.html

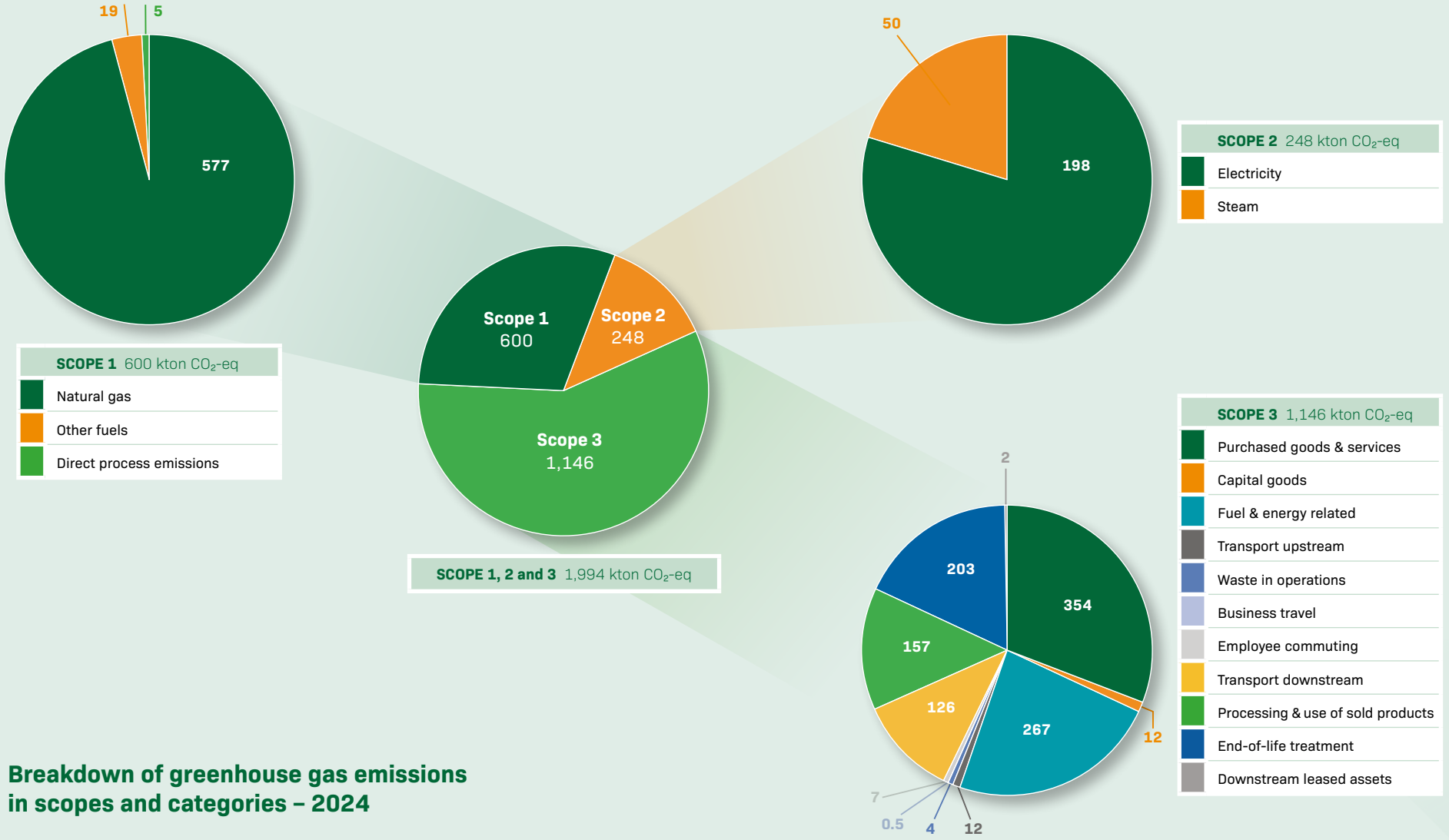
SASB Index

TOPIC	METRIC	CODE	PAGE
Greenhouse gas emissions	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	RT-CH-110a.1	ESG Factsheet, page 61
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	RT-CH-110a.2	Section 3.1, page 19
Air quality	Air emissions of the following pollutants: NO_x only. Other air pollutants are below the threshold values of the European Sustainability Reporting Standard (ESRS)	RT-CH-120a.1	Section 4.4, page 36
Energy management	(1) Total energy consumed; (2) Percentage grid electricity; (3) Percentage renewable; (4) Total self-generated energy	RT-CH-130a.1	ESG Factsheet, page 61
Water management	(1) Total water withdrawn; (2) Total water consumed, percentage of each in regions with high or extremely high baseline water stress	RT-CH-140a.1	ESG Factsheet, page 62
	Number of incidents of non-compliance associated with water quality permits, standards and regulations[35]	RT-CH-140a.2	ESG Factsheet, page 63
	Description of water management risks and discussion of strategies and practices to mitigate those risks	RT-CH-140a.3	Section 4.2, page 34
Hazardous waste management	Amount of hazardous waste generated; percentage recycled	RT-CH-150a.1	ESG Factsheet, page 61
Community relations	Discussion of engagement processes to manage risks and opportunities associated with community interests	RT-CH-210a.1	Section 5.2, page 48
Workforce health and safety	(1) Total recordable incident rate (TRIR) and (2) Fatality rate for (a) direct employees and (b) contract employees	RT-CH-320a.1	ESG Factsheet, page 63
	Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks	RT-CH-320a.2	Section 5.1, page 41
Safety and environmental stewardship of chemicals	Discussion of strategy to (1) manage chemicals of concern and (2) develop alternatives with reduced human and/or environmental impact	RT-CH-410b.2	Section 4.4, page 36
Genetically modified organisms	Percentage of products by revenue that contain genetically modified organisms (GMOs)	RT-CH-410c.1	Zero
Management of the legal and regulatory environment	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	RT-CH-530a.1	Section 5.5, page 57
Operational safety, emergency preparedness and response	Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR)[36]	RT-CH-540a.1	ESG Factsheet, page 63
	Number of transport incidents	RT-CH-540a.2	Section 4.4, page 36

[35] These incidents are included in Process safety numbers.

[36] PSISR is not used by Nobian. We use Process safety incident counts rate – level 1 as KPI for this.

Breakdown of greenhouse gas emissions



Breakdown of greenhouse gas emissions in scopes and categories – 2024

Sustainability governance

Our sustainability approach is focused on making sustainability an integral part of our strategic decisions and daily operations. For this reason, the governance structure for sustainability matters is embedded as far as possible in existing processes, controls and procedures, and identifies roles and responsibilities.

Board of Directors & Corporate Responsibility Committee

The Corporate Responsibility Committee (a Board Committee) has been tasked by the Board of Directors to oversee certain corporate responsibilities relating to Nobian's policies, practices, and performance, including the company's environmental, health, safety, sustainability, product quality, and social policies and programs, together with other matters that may impact its public reputation.

Leadership Team

The Leadership Team, led by the CEO, sets the strategic direction for sustainability issues and monitors progress against the set KPIs, under the initiative and leadership of the Chief Technology and Sustainability Officer.

Sustainability Core Team

Central responsibility for the development, implementation, monitoring, and reporting of the sustainability program sits with the cross-functional Sustainability Core Team, led by the Sustainability Manager. The members of the core team comprise all relevant functions. Each member has a Leadership Team sponsor who is responsible for their focus area.

Sustainability theme	Focus area	Sustainability Core Team lead	Leadership Team member
Climate	CO_2-reduction	Technology Manager Energy	Chief Technology and Sustainability Officer
	Renewable energy	Director Energy	Chief Operations Officer
	Energy efficiency and storage	Technology Manager Energy	Chief Technology and Sustainability Officer
Circular	Green products	Sustainability Manager	Chief Operations Officer
	Water	Sustainability Manager	Chief Technology and Sustainability Officer
	Recycling	Director Innovation Program and Technology Manager	Chief Technology and Sustainability Officer
Care	Health and safety	HSE&S Specialist	Executive Vice President Integrated Supply Chain
	Community	Director Communications and Public Affairs	General Counsel
	People	Chief Human Resources Officer	Chief Human Resources Officer
Other	Sustainability reporting and assurance	Sustainability Manager	Chief Technology and Sustainability Officer
	EcoVadis, SBTI, CDP	Sustainability Coordinator	Chief Technology and Sustainability Officer
	Investor relations	Director Treasury and Investor Relations	Chief Financial Officer
	Legislation and compliance	Deputy General Counsel and Chief Compliance Officer	General Counsel
	Sourcing	Procurement Director	Executive Vice President Integrated Supply Chain

Policies

Since sustainability is an integral part of our strategic decisions and daily operations, it is embedded in the policies of each relevant function, such as our Procurement Policy, HSE Policy, and Cyber Security Policy.

Reporting

Our sustainability KPIs and targets are reviewed each year and updated as needed. Progress is reported by team leads in periodical Sustainability Core Team meetings, according to our KPIs. Progress is reported quarterly to the Leadership Team and the Board of Directors' Corporate Responsibility Committee by the Chief Technology and Sustainability Officer.

This appendix describes the processes through which we identify sustainability-related impacts, risks, and opportunities, which is the input for the double materiality assessment. This assessment is an integral part of the EU CSRD legislation. The methodology is in line with the ESRS and the Task Force on Climate-Related Financial Disclosures (TCFD)[37] framework. The outcome of this double materiality assessment is shown in section 2.3.

Impacts

The impact assessment relates to how external and internal stakeholders perceive where Nobian makes the greatest impact (positive or negative) on society and the environment, known as the 'inside-out perspective'. We invited representatives from different stakeholder groups – employees, investors, public authorities, suppliers, and customers – to complete an impact survey. In total 29 surveys were completed, and follow-up interviews were conducted with several stakeholders. The survey included ranking ten materiality topics as defined by CSRD legislation. The individual rankings of the survey were consolidated and resulted in an overall ranking on a scale from low (1) to high (10) impact.

Risks and opportunities

The identification of sustainability-related impacts, risks, and opportunities is fully integrated in our ERM process.

Nobian conducts a risk and opportunity assessment as part of our ERM process, which is performed annually. We hold ERM sessions with all relevant functions and departments, and assess and rate strategic, operational, financial, compliance, HSE, and reputational risks using a uniform methodology.

During these ERM sessions, we hold in-depth discussions with relevant stakeholders to identify and classify risks and opportunities that could materially affect our business. These include the shift to a lower-carbon economy, extreme weather-related events, and volatile water levels.

Each risk and opportunity is assigned a timeline to determine when it might impact the company: short (within two years), medium (two to four years), or long (over four years). The risks are rated according to their potential impact and likelihood within the stated timeframe. Similarly, opportunities are scored according to their anticipated positive impact. The number of top risks and opportunities determine the score, used on the y-axis of the materiality topics matrix. We consolidate the individual rankings of the ERM sessions, resulting in an overall ranking 1 to 10 based on a combination of likelihood and impact.

[37] https://www.fsb-tcfd.org/

Three significant risks to company performance

The following table gives a summary of three main sustainability risks identified during the ERM sessions that are still considered relevant as they could have a significant impact on our company performance. Most of the key risks relate to the transition to low-carbon technologies and fresh water shortages.

Selection of identified risks		
Topic	**Time span**	**Initiatives in place**
Investment cost to transition to lower carbon emissions technology	Short	Working on tailor-made agreements with the Dutch government (page 24). Innovative business models with equipment suppliers.
Access to affordable renewable energy and power purchase agreements (PPAs) for industry	Short	Consortium with other energy-intensive companies to jointly participate in offshore wind tenders. Bilateral discussions with renewable energy suppliers for PPAs (page 21).
Fresh water shortages	Short	Introduction of sustainable water management to reduce fresh water consumption, address volatile water levels and tackle issues related to water discharge (page 34).

As for the transition to low-carbon technologies, the main risks to our performance stem from the substantial investments needed to electrify our production processes, and secure access to affordable renewable electricity. These topics are part of the tailor-made agreement to accelerate carbon reduction, signed by Nobian and the Dutch government on December 19, 2024.

The risks of fresh water shortages include the impact of volatile water levels on transporting raw materials and products, the ability to extract surface or groundwater for our production process, and the discharge of cooling water in summer. In 2023 we developed a sustainable Water Management Policy to mitigate these risks, including fresh water consumption reduction targets, also leading to several opportunities.

Three significant opportunities

We identified various opportunities that can lead to substantial business growth and cost savings, three of which are detailed below.

Selection of identified opportunities		
Topic	**Time span**	**Initiatives in place**
Accelerate reaching our climate targets supported by tailor-made agreements with the Dutch government	Short	Working on tailor-made agreements with Dutch government (page 24).
Further increasing the flex capacity of our production to help stabilize the electricity grid	Short	The current capacity available for grid stabilization is 25%. New program has started to further increase our automatic Frequency Restoration Reserve (aFrr) capacity (page 26).
Reducing fresh water consumption and increase the reuse of process water (as part of sustainable water management program)	Medium	Several projects in the pipeline to reduce fresh water consumption by transitioning to heat pump technology and expanding use of process water in brine fields by installing return pipelines (page 34).

We have a key opportunity to accelerate our Scope 1 climate targets and become an important contributor to the Dutch government's ambition to accelerate the reduction of CO_2 emissions by 55% by 2030. This also aligns with the EU's Fit for 55 plan. Next to this, we can increase our role in helping to stabilize the Dutch electricity grid, by increasing our E-flex capacity.

Finally, we see several opportunities to significantly reduce our fresh water consumption by moving to heat pump technology (mechanical vapor recompression) from fossil fuel technology. This will significantly reduce our energy and water consumption, returning more process water to our brine fields via return pipelines. All these projects are in our transition plans and require significant investment.

Independent assurance statement

WHEN TRUST MATTERS

Independent Limited Assurance Report

Nobian Industrial Chemicals B.V. ("Nobian" or "Group") commissioned DNV Business Assurance Germany GmbH ("DNV", "we", or "us") to provide limited assurance over the Subject Matter presented in Nobian's Sustainability Report 2024 ("Report") for the reporting year ending 31st December 2024.

Our observations and areas for improvement will be raised in a separate report to Company's Management. Selected observations are provided below. These observations do not affect our conclusions set below.

Overall, for the performance data in scope, we have confidence in the processes and systems to ensure the information presented in the Report is accurate. Nobian has demonstrated enhancements in its data collection practices and consolidation approach. Observations by DNV indicate a noticeable improvement in the efficiency of audit trails across all visited sites and key performance indicators. Nobian has expressed and shown a strong commitment to comprehensively document its data collection procedures to further facilitate forthcoming sustainability reporting and audit activities.

Subject Matter

The scope and boundary of our work is restricted to the following areas (collectively the "Subject Matter"):

1. Selected information

The performance indicators included within the Report (the "Selected Information"), listed below:

- Scope 1 emissions (kton CO_2-eq)
- Scope 2 emissions (kton CO_2-eq)
- Total emissions: Scope 1 and 2 (kton CO_2-eq)
- Scope 1 emissions under regulated emissions trading schemes (ETS)(% of direct emissions)
- Total Scope 3 emissions (kton CO_2-eq)
- Category 1: Purchased goods and services (kton CO_2-eq)
- Category 2: Capital goods (kton CO_2-eq)
- Category 3: Fuel and energy related activities (kton CO_2-eq)
- Category 4: Upstream transport and distribution (kton CO_2-eq)
- Category 5: Waste generated in operations (kton CO_2-eq)
- Category 6: Business travel (kton CO_2-eq)
- Category 7: Employee commuting (kton CO_2-eq)
- Category 9: Downstream transportation and distribution (kton CO_2-eq)
- Category 10 and 11: Processing of sold products and use of sold products (kton CO_2-eq)
- Category 12: End-of-life treatment of sold products (kton CO_2-eq)
- Category 13: Downstream leased assets (kton CO_2-eq)
- Total emissions: Scope 1, 2 and 3 (kton CO_2-eq
- Total energy consumption (GWh)
- Percentage renewable energy (%)
- Percentage renewable electricity (%)
- Percentage renewable steam (%)
- Percentage grid energy (%)
- Total self-generated electricity (GWh)
- Total self-generated steam (GWh)
- NOx absolute emissions (ton)
- Total organic carbon (TOC) (ton)
- Chlorides (ton)
- Copper (ton)
- Nickel (ton)
- Fresh water intake (1000 m^3)
- Fresh water intake - Of which drinking water intake
- Fresh water consumption (1000 m^3)
- Fresh water consumption in stressed regions (1000 m^3)
- Total waste (ton)
- Reusable hazardous waste (ton)
- Non-reusable hazardous waste (ton)
- Non-reusable hazardous waste - Of which disposed to landfill (ton)
- Total hazardous waste (ton)
- Reusable non-hazardous waste (ton)
- Non-reusable non-hazardous waste (ton)
- Total non-hazardous waste (ton)
- Percentage reusable hazardous waste (%)
- Percentage reusable non-hazardous waste (%)
- Total sales volume (kton)
- Manufacturing sites with ISO 14001/RC-14001 certifications (%)

Our competence, independence and quality control

DNV established policies and procedures which are designed to ensure that DNV, its personnel and, where applicable, others are subject to independence requirements (including personnel of other entities of DNV) and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. Our multi-disciplinary team consisted of professionals with a combination of environmental and sustainability assurance experience.

WHEN TRUST MATTERS

- Global headcount Nobian employees (#)
- Gender diversity in the workforce (M/F) (%)
- Gender diversity in senior positions (M/F) (%)
- Employee attrition rate (voluntary and involuntary) (%)
- Total reportable incident rate (TRR) for employees, temporary workers and contractors (per 1,000,000 hours worked)
- Lost time injury rate (LTIR) for employees, temporary workers and contractors (per 1,000,000 hours worked)
- Total reportable incident rate (TRR) for employees, temporary workers (per 1,000,000 hours worked)
- Lost time injury rate (LTIR) for employees, temporary workers (per 1,000,000 hours worked)
- Total reportable incident rate (TRR) for contractors (per 1,000,000 hours worked)
- Lost time injury rate (LTIR) for contractors (per 1,000,000 hours worked)
- Fatalities (per 1,000,000 hours worked)
- Process safety incident counts - level 1 (#)
- Process safety incident counts rate - level 1 (per 1,000,000 hours worked)
- Process safety incident counts - level 2 (#)
- Process safety incident counts rate - level 2 (per 1,000,000 hours worked)
- Process Safety Total Incident Rate (PSTIR) combined (per 1,000,000 hours worked)
- % of manufacturing sites with ISO 45001 certification (%)
- Directors (#)
- Average director tenure (years)
- Independent directors (#)
- Gender diversity of the board (M/F) (%)
- Frequency of board updates on ESG (frequency)
- Board oversight of climate strategy (Y/N)
- Members of the leadership team (#)
- Gender diversity of the leadership team (M/F) (%)

To assess the Selected Information, which includes an assessment of the risk of material misstatement in the Report, we have used Nobian's Basis of Reporting (the "Criteria"), which can be found on pages 66-72 (online version) of the Report.

2. SASB Indicators

RT-CH-110a.1, RT-CH-110a.2, RT-CH-120a.1, RT-CH-130a.1, RT-CH-140a.1, RT-CH-140a.2, RT-CH-140a.3, RT-CH-150a.1, RT-CH-210a.1, RT-CH-320a.1, RT-CH-320a.2, RT-CH-410b.2, RT-CH-410c.1, RT-CH-530a.1, RT-CH-540a.1, RT-CH-540a.2

We have not performed any work, and do not express any conclusions, on any other information outside of the Subject Matter that may be published in the Report or on Nobian's website for the current reporting period or for previous periods.

Our conclusions

1. Selected Information

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information is not fairly stated and has not been prepared in all material respects, in accordance with the Criteria. This conclusion relates only to the Selected Information and is to be read in the context of this Independent Limited Assurance Report, in particular the inherent limitations.

2. SASB Indicators

Based on the work undertaken, nothing has come to our attention that causes us to believe that the Selected SASB Indicators are not fairly stated and has not been prepared in all material respects in accordance with the Industry standard Chemicals Sustainability Accounting Standard 2023 (version 2023-12), issued by the International Sustainability Standards Board (ISSB).

Inherent limitations

All assurance engagements are subject to inherent limitations as selective testing (sampling) may not detect errors, fraud or other irregularities. Non-financial data may be subject to greater inherent uncertainty than financial data, given the nature and methods used for calculating, estimating and determining such data. The selection of different, but acceptable, measurement techniques may result in different quantifications between different entities.

Our assurance relies on the premise that the data and information provided to us by Nobian have been provided in good faith. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Independent Limited Assurance Report.

Responsibilities of the Management of Nobian and DNV

The Directors of Nobian have sole responsibility for:

- Preparing and presenting the subject matter in accordance with the Criteria;
- Designing, implementing and maintaining effective internal controls over the information and data, resulting in the preparation of the subject matter that is free from material misstatements;
- Measuring and reporting the subject matter based on their established Criteria; and Contents and statements contained within the Report and the Criteria.

Our responsibility is to plan and perform our work to obtain limited assurance about whether the subject matter has been prepared in accordance with the Criteria and to report to Nobian Group in the form of an independent limited assurance conclusion, based on the work performed and the evidence obtained. We have not been responsible for the preparation of the Report.

WHEN TRUST MATTERS

Standard and level of Assurance

We performed our work using DNV's assurance methodology VeriSustain™, which is based on our professional experience and international assurance best practice including the International Standard on Assurance Engagements 3000 ("ISAE 3000"). We planned and performed our work to obtain the evidence we considered necessary to provide a basis for our Assurance Opinion. We are providing a 'limited level' of assurance.

DNV applies its own management standards and compliance policies for quality control, which are based on the principles enclosed within ISO IEC 17029:2019 – Conformity Assessment – General principles and requirements for validation and verification bodies, 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.

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; and the level of assurance obtained is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. We planned and performed our work to obtain the evidence we considered sufficient to provide a basis for our opinion, so that the risk of this conclusion being in error is reduced but not reduced completely.

Basis of our conclusions

1. Selected Information

We are required to plan and perform our work in order to consider the risk of material misstatement of the Selected Information; our work included, but was not restricted to:

- Conducting interviews with Nobian's management, to obtain an understanding of the key processes, systems and controls in place to generate, aggregate and report the Selected Information;
- Conducting an on-site visit to the headquarter in Amersfoort, and on-site visits to Rotterdam (Netherlands) and Frankfurt (Germany), and teleconferences with different sites including the headquarter to review processes and systems for preparing site level data consolidated at Group level. We were free to choose the sites on the basis of their material contribution to Nobian's data;
- Performing limited substantive testing on the most significant contributors, to check that their data had been appropriately measured, recorded, collated and reported;
- Reviewing that the evidence, measurements and the context provided to us by Nobian for the Selected Information is prepared in line with the Criteria;
- Assessing the appropriateness of the Criteria for the Selected Information;
- Reading the Report and narrative accompanying the Selected Information within it with regard to the Criteria; and
- Reviewing of supporting evidence for key claims in the Report; our checking process prioritized the most material claims at a group level.

2. SASB Indicators

We are required to plan and perform our work in order to form an opinion over the reporting of selected indicators in accordance with the Industry standard Chemicals Sustainability Accounting Standard 2023 (version 2023-12), issued by the International Sustainability Standards Board (ISSB).

For and on behalf of DNV Business Assurance Germany GmbH

Alessia Segalini
Lead Verifier

Guangyu Wayne Li
Technical Reviewer

Essen, Germany
23.04.2025

DNV Business Assurance Germany GmbH is part of DNV – Business Assurance, a global provider of certification, verification, assessment and training services, helping customers to build sustainable business performance. www.dnv.com

Glossary

A

Aqueduct Water Risk Atlas A water risk mapping tool to help companies, investors, governments, and other users understand where and how water risks and opportunities are emerging.

B

Basel Convention The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was created to protect people and the environment from the negative effects of the inappropriate management of hazardous wastes worldwide.

BBS (Behavior-based safety) Behavior-based safety (BBS) is a proactive approach to increasing safe behavior in an area. BBS focuses on reducing hazards, risks, and incidents by observing the behavior of a person and determining what follows when this behavior occurs.

Brine Water saturated with salt.

C

Carbon neutral Carbon neutrality is reached when the same amount of CO_2 is released into the atmosphere as is removed by various means.

CDP CDP is a not-for-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage its environmental impacts.

Cefic European Chemical Industry Council.

CMS 70 Green Hydrogen certification standard from TÜV SÜD.

CO_2 Carbon dioxide.

CO_2-eq Carbon dioxide equivalent is used to compare the emissions from various greenhouse gases on the basis of their global warming potential (GWP), by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.

Corporate Sustainability Reporting Directive (CSRD) The Corporate Sustainability Reporting Directive (CSRD) requires companies to report on the impact of corporate activities on the environment and society, and requires the audit (assurance) of reported information.

D

DE&I Diversity, equity, and inclusion are three closely linked values held by many organizations that are working to be supportive of different groups of individuals, including people of different races, ethnicities, religions, abilities, genders, and sexual orientations.

DNV Independent expert in assurance and risk management and one of the world's leading certification bodies.

E

EcoVadis A globally recognized assessment platform that rates businesses' sustainability based on four key categories: environmental impact, labor, and human rights standards, ethics, and procurement practices.

E-flex E-flex is the flexible use of electricity based on renewable energy supply and demand, helping to stabilize the grid.

Enterprise risk management (ERM) Enterprise risk management is the process of identifying and addressing methodically the potential events that represent risks to the achievement of strategic objectives, or to opportunities to gain competitive advantage.

Environmental Product Declaration (EPD) An Environmental Product Declaration transparently reports objective, comparable and third-party verified data about products and services' environmental performances from a life-cycle perspective.

ESG Environmental, social, and governance: the three core pillars of ESG frameworks, representing the key areas that companies are expected to report on.

ESRS European Sustainability Reporting Standards.

G

GHS Globally Harmonized System of Classification and Labeling of Chemicals – a system for harmonizing hazard classification criteria and chemical hazard communication elements worldwide.

GLEC The GLEC Framework is the global method for the calculation and reporting of logistics emissions.

Green chemistry Green chemistry is the design of chemical products and processes that reduce or eliminate the use or generation of hazardous substances. Green chemistry applies across the life-cycle of a chemical product, including its design, manufacture, use, and ultimate disposal.

Green hydrogen Green hydrogen is hydrogen produced by the electrolysis of water, using renewable electricity.

Greenhouse gases (GHG) Gases, such as carbon dioxide, that trap heat in the atmosphere are called greenhouse gases.

I

IPCC The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change.

ISCC PLUS ISCC PLUS certification is a voluntary scheme that is applicable for the bioeconomy and circular economy for food, feed, chemicals, plastics, packaging, textiles and renewable feedstock derived from a process using renewable energy sources.

L

Life-Cycle Assessment (LCA) A Life-Cycle Assessment calculates the environmental impact of products or services throughout their entire life-cycle.

Lost time incident rate (LTIR) is a metric used to record the average number of incidents leading to an employee being unable to work for a minimum of one day during a set period.

M

Materiality assessment An ESG materiality assessment is a process through which an organization identifies the ESG issues that are the most relevant and critical – and thus, material – to its operations, its success and its stakeholders.

N

NO_x NO_x is shorthand for nitric oxide (NO) and nitrogen dioxide (NO_2).

P

Paris Agreement The Paris Agreement is a legally binding international treaty on climate change. It was adopted in Paris, France, on 12 December 2015.

Power Purchase Agreement (PPA) A long-term electricity supply agreement between two or more parties, usually between a power producer and a customer.

Product stewardship An approach to managing the environmental impacts of different products and materials and at different stages in their production, use and disposal.

R

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals. REACH is a European Union regulation and addresses the production and use of chemical substances, and their potential impacts on both human health and the environment.

Responsible Care Responsible Care is the chemical industry's ethical commitment to improving safe production, handling and use of chemicals across the supply chains.

S

Science Based Targets initiative (SBTi) The Science Based Targets initiative (SBTi) is a corporate climate action organization that develops standards, tools and guidance which allow companies to set greenhouse gas emissions reductions targets.

Scope 1, 2 and 3 emissions
Scope 1 emissions are direct greenhouse (GHG) emissions that occur from e.g. fuel combustion or chemical processes.
Scope 2 emissions are indirect GHG emissions associated with the purchase of electricity, steam, heat, or cooling.
Scope 3 emissions are the result of activities from assets not owned or controlled by the reporting organization, but that the organization indirectly affects in its value chain.

SO_x Sulfur oxides are compounds made up of sulfur and oxygen.

Sustainability Accounting Standards Board (SASB) SASB Standards help companies disclose relevant sustainability information to their investors.

T

TCFD Taskforce on Climate-Related Financial Disclosures with the aim to improve and increase reporting of climate-related financial information.

TRR Total Reportable Injury Rate, reflecting the number of recordable injuries.

U

UN Sustainable Development Goals The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity.

V

Value chain A value chain refers to the full life-cycle of a product or process, including material sourcing, production, consumption and disposal/recycling processes.

Colophon

Cautionary statement and reference information

This report contains forward-looking statements which are subject to risks and uncertainties, and actual results and events may differ considerably from those expressed within them. Many of these risks and uncertainties relate to factors that Nobian is unable to control or estimate precisely, such as future market and economic conditions, the behavior of other market participants, costs of raw materials, changes in law, technological developments and legal judgments and stipulations of regulatory bodies that affect the activities of Nobian. You are cautioned not to place undue reliance on these forward-looking statements. Nobian does not undertake any obligation to update the forward-looking statements contained in this report.

This report is a Nobian publication

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NOBIAN

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GROW GREENER TOGETHER