



Sustainability
Report 2024

Content

The purpose of this report is to explain how we partner with our customers, suppliers, employees, and other key stakeholders to deliver solutions and drive sustainable progress. This report documents Nouryon's sustainability performance in alignment with the Sustainability Accounting Standards Board (SASB) disclosure requirements and the Global Reporting Initiative (GRI).



Click on the chapter title for the the first page of the corresponding chapter

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Message from our Chairman and CEO



I am pleased to present an in-depth overview of Nouryon's sustainability progress and achievements over the past year in our 2024 Sustainability Report. This report highlights the significant strides that we took in 2024 to deliver on our Company purpose: Your partner in essential solutions for a sustainable future.

Our Commitment to a Sustainable Future

At Nouryon, we see sustainability as a business opportunity, license to operate, and a strategic priority to drive growth and build long-term value. Our commitment to safety and sustainability is foundational to our strategy, core values, and business operations. We focus on four key areas:

- **Customer-Centric Growth:** We drive growth by meeting evolving customer demands for innovative and sustainable solutions.
- **Operational Efficiency:** We enhance our operational processes to optimize resource use, reduce energy, waste, and water consumption, and lower costs.
- **Talent Attraction and Retention:** We foster a 'Changemaker' culture that attracts and retains talent. We invest in employee development to build a skilled workforce.

- **Compliance:** We build trust with stakeholders and effectively manage risks through compliance with sustainability-related laws and regulations, including disclosure requirements.

Our ability to adapt and innovate for our customers, and collaborate closely with partners, has served as a foundation for Nouryon's leading safety, sustainability, and financial performance within our industry.

Highlights of Our 2024 Performance and Sustainability Progress

Our dedicated efforts in 2024 resulted in progress across multiple areas of our business performance and sustainability commitment. In 2024, 35% of our full-year revenue was derived from our portfolio of Eco-Premium Solutions¹, affirming our commitment to sustainable innovation and the development of products with sustainability benefits. Other notable achievements in 2024 included:

Continuously Improving Our Safety and Environmental Performance:

- We remained in the top quartile for people safety performance according to the most recent American Chemistry Council (ACC) benchmark data with a 78% decrease in our process safety incident rate versus our 2019 baseline.
- We achieved a 19% reduction in total absolute Scopes 1 and 2 greenhouse gas (GHG) emissions between 2019 and 2024.
- 56% of our total electricity is now being derived from renewable and low carbon sources, and 35% of our total energy consumption, including steam, came from renewable sources compared to 30% in 2019.

- We are proud that our Ningbo site was recognized as one of the China Top 100 Green Electricity Consumption Companies. Additionally, in 2024, 28 of our manufacturing sites were sourced with 100% renewable and/or low carbon electricity.
- We were recognized with 14 awards from the Texas Chemical Council (TCC) and Texas Chemistry Alliance (TCA), and the prestigious Grand Slam Award from the Association of American Railroads (AAR).

Growing and Innovating Our Essential and Sustainable Solutions:

- 74% of our research and development (R&D) product pipeline was focused on solutions with sustainability benefits.
- We introduced innovative products with sustainability benefits, such as Expancel® BIO microspheres, Berol® Nexus surfactant, and Structure® Silk starch.
- We achieved multiple International Sustainability and Carbon Certification standard (ISCC PLUS) certifications, including for our green monochloroacetic acid (MCA) production at our Delfzijl site in the Netherlands.
- We started full-scale production of our new Expancel® expandable microspheres plant in Green Bay, Wisconsin, US, complementing our existing full-scale plant in Sundsvall, Sweden, and product expansion facilities in China and Brazil. We also commenced operations at our new Integrated Manufacturing Model (IMM) site in Ribas do Rio Pardo, Brazil.
- We were awarded several prestigious Supplier awards from customers around the world, including an 'Excellence in ESG Award' from Phoenix Silicon International Corporation (PSI).

¹ Our Eco-Premium Solutions are products that offer significant sustainability benefits over mainstream alternatives in the market while providing the same or better functionality. For more information, see [page 41](#).



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carbon sources



ISCC PLUS certifications for
multiple products, including
green MCA production



74% of our supplier spend
assessed for sustainability
by EcoVadis

Engaging and Partnering with Our Stakeholders and Communities:

- We expanded the proportion of our supplier spend assessed for sustainability by EcoVadis to 74% versus 66% in 2023.
- We continued developing our employees, and university students, through our leadership, mentorship, and internship programs.
- We expanded our Global Living Wage analysis to cover 15 countries, representing more than 97% of our employees. All employees assessed are paid a living wage. We plan to extend the study further in 2025 to cover smaller countries. We are committed to ensuring 100% of our employees receive a living wage by 2030 and continuously thereafter to maintain fair and competitive compensation across our organization.
- We engaged through our community partnerships, volunteerism, and philanthropy around the world. This included initiatives such as the Eagles Autism Challenge and Nouryon All-Pro Teachers program in the US, among others. In Sweden, we cooked meals for families at the Ronald McDonald House, using ingredients donated by Nordic Business Center employees, to support families with seriously ill children undergoing long-term hospital treatment.
- We also continued to support Vatsalya Trust Balikashram, an orphanage in Navi Mumbai, India, providing shelter, nourishment, medical care, education, and developmental support to approximately 50 girls, ages 6 to 18, as well as many other initiatives around the world that are focused on engagement and support for our local communities.

Appreciation and Encouragement

I extend my gratitude to our customers, suppliers, and other stakeholders for their unwavering commitment throughout 2024. A special thanks goes out to our dedicated employees, whose continued focus on safety, passion, and dedication have been instrumental in the progress we have made and continue to make.

In closing, I invite you to read more details about these achievements and other key milestones in this report. Comprehensive annual sustainability reporting data is also included on pages [95-99](#), providing a transparent view of our performance.

Charlie Shaver

Chairman and CEO



EcoVadis
Gold
rating



CDP B score
Climate
Change

1. About Nouryon

GRI 2-1, GRI 2-6



- 1.1 Our Strategy for Growth
- 1.2 Our Segments and Business Units



Nouryon is a global specialty chemicals leader that provides essential specialty chemicals for diverse end markets, customers, and geographies. We have approximately 8,200 employees and a customer-centric business model focused on providing tailored solutions that improve the performance, quality, and sustainability of our customers' products across a variety of end markets, including personal care, cleaning goods, crop protection, crop nutrition, pharmaceuticals, polymers, paints, coatings, natural resources, and packaging.

We operate through three segments: Consumer & Life Sciences, Performance Materials, and Resource Solutions. We support and collaborate with our customers via 13 strategically located innovation centers that power our innovation growth engine and enable exceptional technical service. We leverage a global footprint of 63 manufacturing sites in 19 countries on four continents, which allows us to serve a geographically balanced portfolio of customers around the world. Our proximity and global reach are critical for customers that require a reliable supply chain across geographies.

Innovation and implementation of our sustainability goals are core to our long-term growth strategy. Our significant research and development (R&D) capabilities, superior technical expertise, and intimate knowledge of our customers and end markets make us a leader in creating sustainable solutions. Our products and services are integral to our customers' operations, products, and end markets.

We believe this intimacy and focus on our customers positions us to build upon our existing partnerships and develop new ones to design solutions that meet our customers' continuously evolving effectiveness, efficiency, and sustainability goals. We have been successful in addressing our customers' sustainability needs, with 35% of our 2024 revenue derived from Eco-Premium Solutions. These are solutions that offer substantial sustainability benefits over mainstream alternatives in the market, while still delivering the same or superior product performance. In addition, in 2024, approximately 74% of our product innovation pipeline was focused on solutions with sustainability benefits.

Success Through Partnerships

Nouryon's purpose is: your partner in essential solutions for a sustainable future. We believe strong relationships and collaboration are key to our success. We are dedicated to understanding the needs of our stakeholders, including customers, employees, suppliers, governments, industry associations, investors, and the communities we serve. By working closely with them, we incorporate their views into our decisions.

1.1 Our Strategy for Growth

GRI 2-22

Our growth strategy is designed to accelerate expansion and enhance performance. Our goal is to reinforce our leading position in the specialty chemicals industry by delivering on our customers' expectations with innovative and sustainable solutions that cater to both present and future needs. We accomplish this by maintaining a customer-centric approach and focusing on customer requirements in attractive and growing end markets. Sustainability is foundational to the way we operate and grow with our customers.

We sell our products in growing global markets that benefit from favorable long-term growth trends. We believe we have sustainable competitive advantages in these markets, including specialized manufacturing know-how, a global footprint, and the ability to safely manage products with complex handling requirements.

We plan to execute our strategy by enhancing our customer offerings and consistently adding innovative and sustainable solutions to our existing portfolio. Our strategy includes growing with our existing customers, in new markets, and through acquisitions. It also encompasses further expansion of our sustainable product offerings. Moreover, we strive to maximize the production capacity utilization, and flexibility of our production facilities to boost productivity.



1.2 Our Segments and Business Units

Our activities are organized into three segments: Consumer & Life Sciences, Performance Materials, and Resource Solutions. Each segment is focused on meeting and exceeding our customers' requirements for innovative and sustainable solutions for the growing end markets they serve.

Consumer & Life Sciences Segment

Our Consumer & Life Sciences segment develops critical ingredient solutions for personal care, consumer packaging, cleaning goods, agriculture, and pharmaceuticals. We offer specialized applications such as hair styling gels, skin lotions, fabric softeners, detergents, crop protection aids, plant nutrition micronutrients, and pharmaceutical excipients.

This segment is organized into two business units: Home and Personal Care, which addresses personal care, cleaning goods, and consumer packaging; and Life Sciences, which focuses on crop care and pharmaceuticals. Our products are often co-developed with customers for specific markets, ensuring tailored solutions.

Our customers around the world benefit from our solutions, which offer, for example, biodegradable, biobased water soluble, and silicone-free alternatives found in everyday products that do not compromise on performance, help increase crop yields, and support pharmaceutical production.

Consumer & Life Sciences Segment 2024 Financial Performance

In the Consumer & Life Sciences segment, revenue increased by 1% year-over-year to \$2.3 billion in 2024. This growth was driven by 9% higher volumes, partially offset by pricing declines and foreign currency translation headwinds.

The lower pricing corresponded with a year-over-year benefit from variable input costs. Segment adjusted EBITDA increased 14% year-over-year to \$517 million. Volume in the Life Sciences business unit saw double-digit improvement, particularly in agricultural solutions, which benefitted from a rebound in demand after significant customer destocking in 2023. Volume in the Home and Personal Care business unit was also significantly higher, led by the cleaning end market. Segment adjusted EBITDA margin in the Consumer & Life Sciences segment was 22.6%, a year-over-year increase of 250 basis points.

Some of our sustainable innovations include:

- **SolAmaze®**: Biodegradable film-forming product for sunscreens
- **Adsee™ AMP 40**: Salt-free, biodegradable adjuvant for agriculture
- **Agrilan® 1015**: Biodegradable dispersant for crop protection

Through technical capabilities, partnerships, acquisitions, and by enhancing our portfolio, we provide our customers with biodegradable and biobased products, among other innovative solutions.

Performance Materials Segment

Our Performance Materials segment develops technologies to enhance products for polymer markets, paints, coatings, sealants, roads, and construction markets. We offer solutions that enable production and improve properties of products, essential to polymers and paints.

This segment is organized into two business units: Polymer Specialties and Paints and Coatings. Our Polymer Specialties business unit is a global leader in organic peroxides and metal alkyls, which are essential for polymer production. Our Paints and Coatings business unit provides additives for industrial and decorative paints, roof coatings, and asphalt applications.

Performance Materials Segment 2024 Financial Performance

Revenue in the Performance Materials segment decreased by 3% year-over-year to \$1.7 billion, as pricing declines and foreign currency translation headwinds more than offset 5% volume growth. The lower pricing corresponded with a year-over-year benefit from variable input costs. Segment adjusted EBITDA increased 7% year-over-year to \$372 million. Volume in the Paints & Coatings business unit improved given increased demand relative to the customer destocking in 2023. Volume was also higher in the Polymer Specialties business unit. Segment adjusted EBITDA margin in Performance Materials segment was 21.3%, a year-over-year increase of 190 basis points.

Recent sustainable innovations include:

- **Improved processes:** Reduced salt emissions and catalyst use at some of our sites.
- **Solutions for plastic recycling:** Enhancing recycled polymers with organic peroxides.
- **Bermocoll® FLOW:** A natural rheology modifier for paints.
- **Ethylan® EF-60:** A volatile-organic-compound-free (VOC-free) additive for waterborne paints.
- **Cool roof coatings:** Reflective coatings to reduce heat absorption and energy use.

Resource Solutions Segment

Our Resource Solutions segment manufactures products, process aids, and intermediates to extract and convert extracted materials into high-value materials for various end markets, including packaging, tissue, mining, oilfield, water treatment, and industrial lubricants.

This segment is organized into two business units – Renewable Fibers and Industrials – these units focus on essential bleaching products for pulp as well as various products for natural resource applications. Our Integrated

Manufacturing Model (IMM) promotes circular, sustainable processes, reducing environmental footprints and improving safety.

We innovate solutions for our customers that improve efficiency and reduce environmental impacts, for example, helping our customers manufacture white fibers produced in an efficient and circular process at our Integrated IMM facilities. Modern pulp mills generate excess utilities that can be used as fuel in other manufacturing processes. Nouryon uses renewable energy from our customers, sourced primarily from biomass. Reused resources effectively lower the carbon footprint of the site, and on-site production reduces transportation requirements.

Resource Solutions Segment 2024 Financial Performance

Revenues in the Resource Solutions segment decreased by 3% year-over-year to \$1.1 billion, as lower pricing and foreign currency headwinds more than offset 4% volume growth. The lower pricing corresponded with a year-over-year benefit from variable input costs. Segment adjusted EBITDA increased 6% year-over-year to \$266 million. The Renewable Fibers business unit had strong volume growth from share gain and the opening of a new plant in the Americas. Volume was also higher in the Industrials business unit. Segment adjusted EBITDA margin in Resource Solutions segment was 24.3%, a year-over-year increase of 200 basis points.

Recent sustainable innovations include:

- IMM provides low carbon manufacturing of pulp bleaching agents
- High temperature lube additives allow equipment to operate longer at higher temperatures increasing process efficiency
- Surfactants with an improved sustainability profile and performance



Below are examples of what we offer our customers according to their needs:

Consumer & Life Sciences (~32% Eco-Premium Solutions)



Home and Personal Care:

- Naturally based, biodegradable products for cleaning and personal care
- Cleaning products for homes, hospitals, etc.
- Natural ingredients for hair and skin care, including silicon-free formulas
- Biodegradable solutions for dishwasher pods and liquid laundry detergents effective at lower temperatures
- Biodegradable polymers for laundry detergents
- World's second-largest producer of green chelates



Life Sciences:

- Solutions for crop protection, including biodegradable adjuvants and green solvents
- Nutrition products that enable efficient water use
- Food and beverage preservation solutions
- Improved crop yield solutions
- Water conservation solutions
- Pharmaceutical aids such as excipients for drug formulations and highly specialized separation media used in the production and purification of pharmaceutical products

Performance Materials (~28% Eco-Premium Solutions)



Polymer Specialties:

- PVC (polyvinyl chloride) window profiles
- Renewable energy: Solutions for solar panels with long durability and high efficiency; lightweight composite parts in windmills for renewable electricity; insulation for high-quality, high-voltage cables
- Paint resins
- Insulation panels
- Recycling enabler to plastics



Paints and Coatings:

- Focus on fast-growing applications such as cool roof coatings, driven by demand for efficient and sustainable solutions
- Eco-friendly antimicrobial agent enables robust, tintable anti-viral paint
- Low volatile organic compound solutions (halogenated and nonhalogenated).
- Expandable microspheres that enhance solar reflectance of cool roof coatings

Resource Solutions (~48% Eco-Premium Solutions)



Renewable Fibers:

- Bleaching chemicals to various industries, including pulp, paper, packaging, mining, water treatment, batteries, and textiles
- Bleaching chemicals enhance fiber properties such as strength, absorption, brightness, and viscosity for tissue and packaging
- Solutions that remove odor, color, and harmful compounds from water, and micropollutants such as pharmaceuticals from wastewater, using oxidative power for nitrate and NOx-free underground operations to promote low CO2 footprint technologies
- Membership in Emission Free Pulping Program to support sustainable pulping
- Modern pulp mills generate excess steam and water, which can be reused as fuel, and our IMM uses biomass power and on-site sodium chlorate production to reduce transportation needs



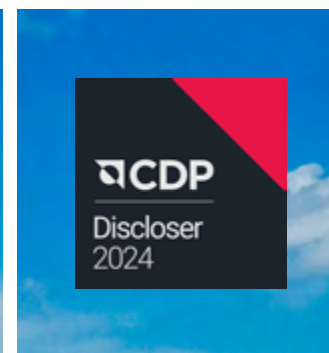
Industrials:


- Lightweighting
- Lube additives that lower emissions and increase fuel efficiency
- Recyclability/secondary use
- Water management

2. Our Commitment to a Sustainable Future



- 2.1 Our Targets
- 2.2 Alignment With and Supporting UN Sustainable Development Goals
- 2.3 Memberships and Partnerships
- 2.4 Industry Ratings
- 2.5 Stakeholder Materiality
- 2.6 Reporting Sustainably



 Click on the tile to go to the corresponding section.

At Nouryon, sustainability is embedded in our purpose and strategy, including our operations, innovations, and values. We believe that the right chemistry can pave the way to a more sustainable future, and we are committed to developing products that contribute to this goal. Nouryon's purpose and values are closely connected, embodying our identity. They help strengthen our performance-oriented culture focused on customers and on growing our business, including through seizing opportunities related to sustainability. By living this purpose and values, we position ourselves as a reliable and responsible business and a global leader in specialty chemicals.

Our 'Commitment to a Sustainable Future' is how we embed and measure sustainable practices in our business approach. It is based on three clear commitments to:

- **CONTINUOUSLY IMPROVE** our safety and environmental performance
- **GROW AND INNOVATE** to create sustainable solutions
- **ENGAGE AND PARTNER** with employees, customers, suppliers, and society to drive sustainable progress

Our 'Commitment to a Sustainable Future' is based on our materiality assessment that helps us identify and focus on the sustainability topics where we can have the greatest impact. It is also designed to support the goals of the United Nations (UN) Paris Agreement on Climate Change and the UN Sustainable Development Goals (SDGs). We monitor our progress and report metrics in line with the Global Reporting Initiative (GRI) and Sustainability Accounting Standards Board (SASB). For more detailed information, including a comprehensive overview of data as well as a GRI and SASB index, please refer to pages [100](#) and [99](#).

Additionally, in 2024, Nouryon garnered significant recognition across multiple regions and industries, earning several prestigious supplier awards that underscore our unwavering commitment to excellence, innovation, and sustainability. These accolades not only highlight

our industry leadership but also validate our continuous efforts to drive sustainable progress. By consistently setting high standards and achieving remarkable milestones, we reinforce our dedication to creating a better and more sustainable future. Read more on [page 13](#).



CONTINUOUSLY IMPROVE
our safety and environmental performance

Key Sustainable Development Goals:



GROW AND INNOVATE
to create sustainable solutions

Key Sustainable Development Goals:



ENGAGE AND PARTNER
with employees, customers, suppliers, and society to drive sustainable progress

Key Sustainable Development Goals:



Celebrating 100 Years of Innovation at Nouryon's Bohus Site

In 2024, Nouryon's Bohus site in Sweden celebrated its 100th anniversary. Established in 1924, the site has grown into a high-tech innovation and production hub. Originally founded by Elektrokemiska Aktiebolaget and driven by pioneers Alfred Nobel, Carl W. Collander, and Rudolf Lilljeqvist, the site now employs 270 professionals.

The Bohus site produces specialty chemicals for various industries, including pharmaceuticals, electronics, paint and coatings, and pulp and paper. It manufactures high-demand products such as Levasil® colloidal silica, Eka® pellets, Kromasil® chromatography media, and Eka® hydrogen peroxide.

With the increasing demand for hydrogen peroxide, particularly for lithium battery production, Nouryon leads the Nordic region with facilities in Bohus and Alby, Sweden, and Rjukan, Norway. The unique technology developed at Bohus is globally utilized, and the Rjukan facility is remotely controlled from Bohus, underscoring its innovative and sustainable contributions to industry.



2.1 Our Targets

GRI 2-25, GRI 305-1, GRI 305-2, GRI 305-3, GRI 305 3-3

Sustainability Goals

We are committed to improving our environmental footprint and have established specific targets to support this goal. We have targets for 2030: A 40% reduction in absolute greenhouse gas (GHG) emissions (Scopes 1 and 2), a 10% decrease in total waste intensity, and a 10% decrease in freshwater consumption intensity, all versus a 2019 base year.

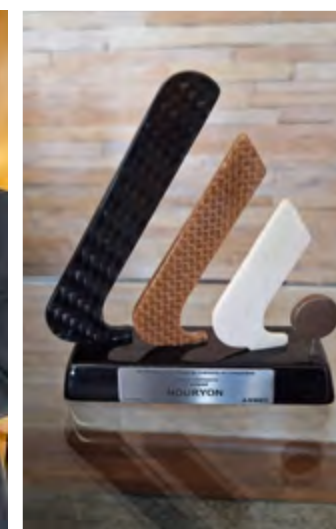
We aspire to become a net-zero organization by 2050. Achieving our GHG emission reduction target and net-zero aspiration depends on several factors, including site evaluations, increased use of renewable energy, the pace of innovation, developments in our value chain, and regulatory requirements. Our targets are codified in our Sustainability Policy.

| | |
|----------------------------|--|
| Emission Reductions | 40% reduction in absolute GHG emissions (Scopes 1 and 2) by 2030 versus base year 2019 |
| Waste Intensity | 10% decrease in total waste intensity by 2030 versus base year 2019 |
| Water Intensity | 10% decrease in freshwater consumption intensity by 2030 versus base year 2019 |

Recognized with Several Prestigious Supplier Awards in 2024

In 2024, Nouryon garnered significant recognition across multiple regions and industries, earning several prestigious supplier awards that underscore our commitment to excellence, innovation, and sustainability.

- **Chicmax's "Supplier of the Year" award in China** – This award recognizes the quality of Nouryon's products and comprehensive services in the personal care sector. Our distributor, Gao Wei, also received the "Quality is Gold Award," further highlighting Chicmax's confidence in our product offerings.
- **"Excellent Supplier Award" in China** – Awarded by Flower's Song, one of Nouryon's largest Monochloroacetic Acid (MCA) customers, this recognition emphasizes our dedication to maintaining high-quality products and meeting customer expectations, showcasing the outstanding teamwork of the Nouryon MCA team.
- **"Best Strategic Alliance Partner" award in India** – Conferred by Indofil Industries Limited, a global leader in the agrochemical industry, this award highlights the exceptional collaboration and mutual trust that have defined our partnership for over two decades. Criteria included product quality, supply reliability, business ethics, and overall partnership strength.
- **"Certificate of Resilience" award in India** – Received from Biocon Biologics, this award acknowledges our commitment to maintaining supply continuity despite adverse conditions, fostering strong engagement and collaboration.
- **"Top of Mind 2024" (Composite Industry) award in Latin America** – For the sixth consecutive year, Nouryon won this award from ALMACO (Latin American Association of Composite Materials) in the "Catalysts" category, reflecting our continued leadership and influence in the regional composites sector.
- **"Excellence in ESG Award" in Taiwan** – Awarded by Phoenix Silicon International Corporation (PSI), this award recognizes our outstanding efforts in environmental, social, and governance practices. Additionally, Nouryon was acknowledged as one of PSI's most reliable and high-performing suppliers, reflecting our unwavering dedication to delivering quality, innovation, and sustainability.
- **"Petro Rabigh 2024 Supplier Recognition Award" in Saudi Arabia** – For the third consecutive year, Nouryon Saudi Arabia was recognized with this esteemed award for our outstanding performance and unwavering dedication in supporting Petro Rabigh's operations throughout 2024. Criteria included on-time and full supply, responsiveness, and emergency and technical support. Our ability to consistently meet these standards, coupled with our team's relentless commitment to excellence, has been a key factor in receiving this recognition.



2.2 Alignment with and Supporting UN Sustainable Development Goals

GRI 2-6, GRI 305 3-3, GRI 405 3-3



Nouryon's sustainable solutions align with the UN Sustainable Development Goals (SDGs) and are well-positioned to meet the demand and opportunities created by several societal trends. These global trends include a growing population, a rising and increasingly health-conscious middle class, climate change, and the need to preserve natural resources.

We believe our Company and sustainable solutions contribute to the following 10 SDGs:



2 ZERO HUNGER End Hunger, Achieve Food Security and Improved Nutrition, and Promote Sustainable Agriculture

We provide our customers with essential functionalities through a robust portfolio that includes crop nutrients, adjuvants, and solvents, some of which are biodegradable and/or derived from renewable resources. Our products promote plant growth, boost agricultural productivity, and improve soil health, reducing the need for extensive ploughing and minimizing erosion. Our investments in ADOB and AGEYE support this goal. Additionally, we provide solutions that help combat iron deficiency.



3 GOOD HEALTH AND WELL-BEING Ensure Healthy Lives and Promote Well-Being for All, Regardless of Age

Health and safety are paramount in our operations, and we rank in the top quartile for people safety performance according to the most recent American Chemistry Council (ACC) benchmark data. We also provide essential solutions for cleaning, personal care, pharmaceuticals, and food. Our products are found in biobased cleaning and personal care products; pharmaceutical excipients that contribute to the controlled release of active ingredients; media used in the purification of insulin and obesity medications; iron fortification in staple foods; and water treatment.



4 QUALITY EDUCATION Ensure Inclusive and Equitable Quality Education and Promote Lifelong Learning Opportunities for Everyone

Nouryon fosters employee growth through a comprehensive learning and development approach. We provide internship programs at various locations and a wide range of opportunities to our employees worldwide including on-the-job, experience-based training, blended programs, online learning, specialist classroom training, and mandatory compliance courses. We also have an employee-led group called BOOST that focuses on career development and networking opportunities. We emphasize Science, Technology, Engineering, and Mathematics (STEM) education in our Corporate Social Responsibility (CSR) framework, supporting communities through volunteerism, engagement, and corporate giving. Additionally, Nouryon's Global Mentorship Program nurtures present and future leaders, facilitating long-term personal and professional growth. It enables participants to gain new insights, develop skills, reflect on achievements, set objectives, recognize talent, and establish beneficial career connections.



5 GENDER EQUALITY Achieve Gender Equality and Empower All Women and Girls

Nouryon is committed to upholding and conducting business in line with our Company Code of Conduct & Ethics. We respect and value all employees, irrespective of age, gender, race, religion, or sexual orientation. Our training programs focus on maintaining a respectful and inclusive workplace, as well as identifying and reporting potential harassment and discrimination.

We have an employee-led Nouryon Women's Network, with more than 400 members globally, that is open to all employees and supports women in chemistry and manufacturing globally. In 2024, multiple virtual events were organized focusing on development and networking opportunities, offering localized programming, including a webinar series and International Women's Day celebrations.



7 AFFORDABLE AND CLEAN ENERGY Affordable and Clean Energy

Nouryon is committed to utilizing renewable² energy and aims to increase its usage in the coming years, aligning with our GHG emission reduction targets. Our solutions play a vital role in energy efficiency and the transition to renewable energy sources. Our Polymer Specialty products enhance critical components like solar panels, windmills, and high-voltage cables, providing unique properties such as transparency, durability, electrical insulation, and strength.

² Energy from sources that are inexhaustible and sustainable, such as wind, solar, hydroelectric, biomass, and others.



Promote Sustained, Inclusive and Sustainable Economic Growth, and Full, Decent, Productive Employment

Nouryon believes in the synergy between business performance, safety, and sustainability. Our growth drives business performance and creates more employment opportunities. We prioritize employee empowerment, safety, and high performance. Our workplace and recruitment strategy mirror both our global presence and the diverse nature of our customers.



Build a Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization, and Foster Innovation

Nouryon is committed to creating innovative solutions for a sustainable future. These include bio-materials, for example, bio-based products to reduce GHG emissions and bio-degradable products to reduce environmental impact. We are dedicated to improving infrastructure durability and energy efficiency with specialized ingredients, supporting societal sustainability. Our solutions also aid in the transition to renewable energy, including components for wind turbines, high-voltage cables, and solar panels. Thus, Nouryon is actively moving towards more sustainable and renewable energy



Reduce Inequality Within and Among Countries

Our strategy emphasizes sustainable growth, particularly in emerging markets. For example, in 2024, Nouryon announced the significant expansion of its office footprint and workforce in Mumbai, India, with the launch of a new Innovation Center to complement the expanding Global Service Center. Read more in the case study on [page 16](#). We invest in our facilities, offering employment and safe work

environments. Our workplaces are diverse, contributing to local economies and reflecting our global reach. Beyond business, we participate in philanthropy through volunteerism and corporate giving, supporting communities in need. This approach highlights our commitment to sustainable growth and community betterment.



Ensure Sustainable Consumption and Production Patterns

The chemistry sector, including Nouryon, facilitates sustainable and circular production through continuous innovation. We consistently enhance our production processes' eco-efficiency, use co-product materials for higher value products, and expand our renewable and biobased product offerings as alternatives to fossil-based sources. Our integrated manufacturing sites, co-located with customers, reduce transport emissions and foster shared resource models. This not only innovates our operations but also contributes to industry-wide sustainability and circularity. In 2024, we partnered with Ingram Micro Lifecycle for environmentally friendly disposal of electronic waste accounting for 2,000 units of used IT equipment from all our sites worldwide (see our case study on [page 35](#)).



Take Urgent Action to Combat Climate Change and Its Impacts

Nouryon aims to reduce GHG emissions across its value chain in alignment with the UN Paris Agreement, acknowledging the impact of climate change on the environment, society, and business economics. We have reduced GHG emissions and are committed to our GHG reduction targets through innovative technologies, efficient processes, and low-carbon energy, as per our Carbon Business Strategy (see [page 23](#)). Our products also help reduce or avoid GHG emissions for our customers

by reducing weight, improving durability and yield, or improving efficiency, thus decreasing energy, fuel, and resource consumption. We also develop products with inherently lower product carbon footprints vs. alternatives.

For more information on the 17 SDGs, visit sdgs.un.org





Case study

Launch of New State-of-the-Art Innovation Center and Expanded Mumbai Office

In 2024, Nouryon launched a new Innovation Center and expanded its office footprint in Mumbai, India, nearly doubling the previous office space to support its rapidly growing Global Service Center. The Innovation Center caters to key end markets, including paints and coatings, agriculture, and home and personal care. With the expanded office now occupying 100,000 square feet and hosting approximately 325 employees, Nouryon is well-positioned to drive growth both in India and globally.

The Global Service Center, also in India, includes commercial teams dedicated to business development within the country and functional hubs that support Nouryon's global growth strategies. The establishment of the Innovation Center enhances Nouryon's ability to deliver tailored product testing and application support, better serving the region's specific needs.

The Innovation Center focuses on developing water-based paints, asphalt solutions, building and construction applications, powder formulations, and seed coating formulations. It is equipped with specialized machinery for applying coatings to seeds, enhancing their protection and performance in agriculture. In home and personal care, the center supports advanced applications for surfactants, chelating agents, fabric softener actives, hair styling polymers, and starches.



2.3 Memberships and Partnerships

GRI 2-28

Nouryon proudly maintains several key memberships, including being a signatory of the UN Global Compact, the world's largest initiative dedicated to corporate sustainability. This international program fosters collaboration to uphold universal principles concerning human rights, labor, environmental protection, and anti-corruption. Our Company strategy, sustainability commitment, and Code of Business Conduct & Ethics are meticulously designed to align with and support these principles.

Additionally, Nouryon is a member of Together for Sustainability (TfS), the [Roundtable on Sustainable Palm Oil](#), and Responsible Care®, demonstrating our commitment to ethical and sustainable practices. We also partner with Hållbar Kemi (Sustainable Chemistry), a Swedish regional corporate cooperative, and the Emission Free Pulping program.

For more detailed information regarding our memberships, please refer to [page 88](#).



2.4 Industry Ratings

In 2024, Nouryon was recognized with a B score for climate from CDP, a global non-profit that runs a leading environmental disclosure system for companies, cities, states, and regions. This rating places Nouryon in the Management category for actions associated with good environmental management.

Additionally, Nouryon earned an EcoVadis Gold rating in 2025 for sustainability achievements in 2024, placing us in the top 3% of companies then rated by EcoVadis, the world's largest provider of business sustainability ratings. The rating encompasses four dimensions: Environment, Labor and Human Rights, Ethics, and Sustainable Procurement. We annually submit an extensive questionnaire to EcoVadis, with the specifics of this achievement available for member review on the EcoVadis website.

Our continued commitment to transparency and environmental responsibility is reflected in these ratings and our ongoing participation in these initiatives.

Our 2024 Ratings:



EcoVadis
Gold
rating



CDP B score
Climate
Change



2.5 Stakeholder Materiality

GRI 3-1, GRI 3-2

Our materiality assessment identifies health and safety in all aspects of our operations and climate change, including energy use and GHG emissions, among other

topics, as issues of key importance to our business. In line with Corporate Sustainability Reporting Directive (CSRD) requirements, we are in the process of completing a new Double Materiality Assessment that includes assessing sustainability-related impacts, risks, and opportunities.

2.6 Reporting Sustainably

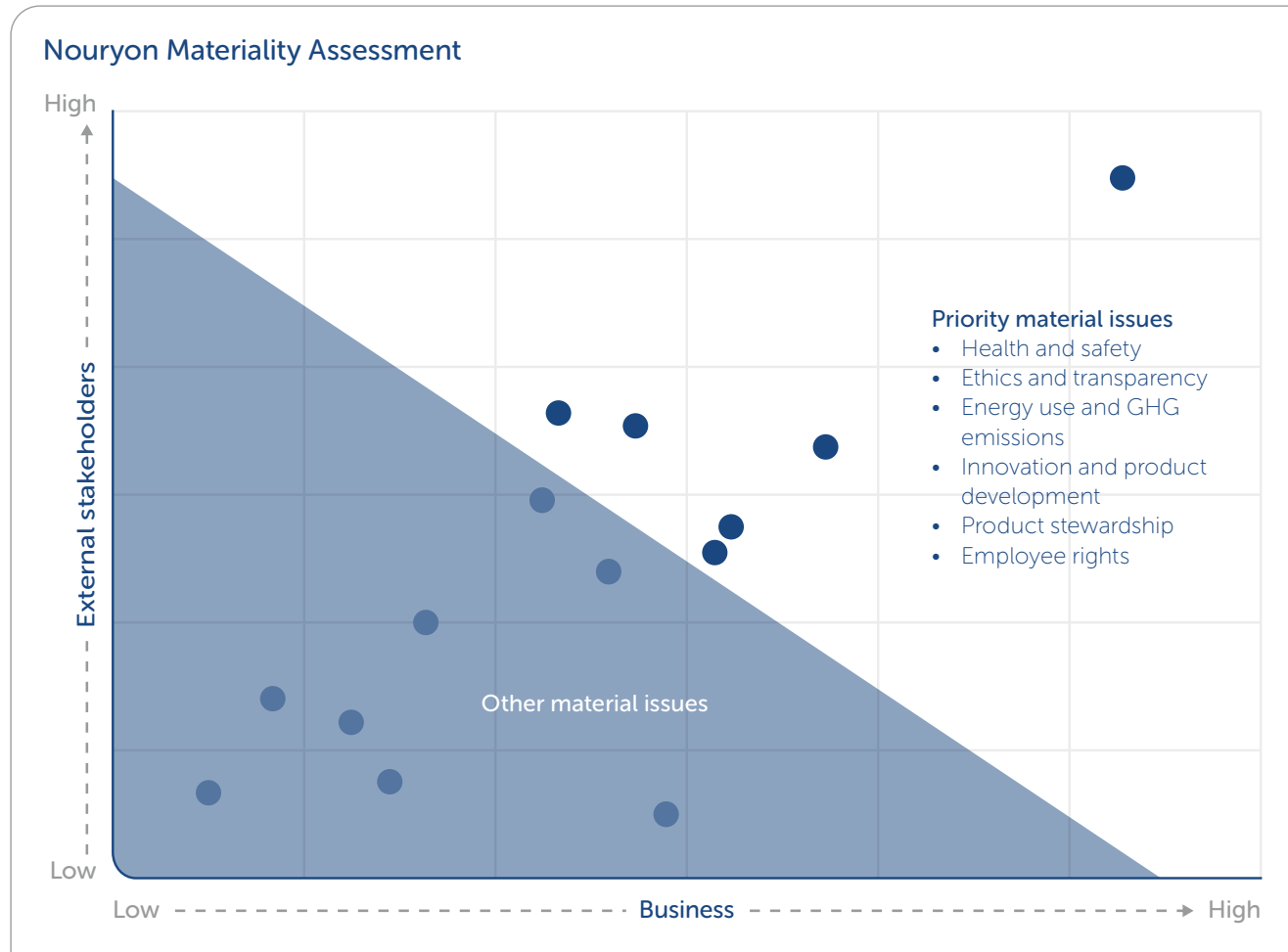
Nouryon is committed to transparency in reporting, and we are proud to share the latest strides in our sustainability journey through this annual Sustainability Report. The report includes our sustainability data fact sheet, which includes metrics with reference to GRI and SASB disclosure standards (refer to the Index on pages [101](#) and [100](#)).

Additionally, we report on our alignment with the Task Force on Climate-related Financial Disclosures (TCFD) Framework (see [page 93](#)). We also conduct internal audits and engage an independent firm, ERM CVS³, to conduct limited assurance for selected 2024 information and data in this report. For more information, please refer to the Independent Assurance Statement on [page 103](#).

We also ensure that our sustainability progress is communicated internally to our employees and executives through several channels:

- We measure and track key sustainability metrics in a in a Corporate Responsibility Dashboard that is reported quarterly to the Corporate Responsibility Council and the Corporate Responsibility Committee of our Board.
- Regular communications to employees, including town halls, internal newsletters like our Leaders Update, intranet posts, all-staff emails and through our internal social media platform Viva Engage.

³ Selected 2024 information and data in this report has been assured by ERM CVS. For more information, refer to the Independent Assurance Report on [page 103](#).



Engaging with Our Stakeholders

Making progress on our sustainability commitment involves continual engagement with our stakeholders. These include our customers, suppliers, employees, candidates, and communities, including governments, as well as potential investors. Below are some highlights from 2024:



Customers

- Close collaboration between key account managers and strategic customers
- Ratings questionnaires including CDP and EcoVadis
- Substantial offering of products with sustainability benefits
- 13 Innovation Centers around the world where we partner with customers to innovate solutions
- Customer surveys
- Customer meetings



Suppliers

- Supplier key account management
- Supplier commitment to Business Partner Code of Conduct
- Supplier of the Year Awards Program
- EcoVadis assessments of a percentage of our core suppliers
- Access to third-party audits and industry best practices through TfS
- Supplier engagement program requesting product carbon footprints
- Scope 3 green raw material alternative market intelligence and ISCC PLUS supporting strategy
- Conflict-minerals risk assessment and due diligence
- Modern-slavery and forced-labor risk assessment



Employees and Candidates

- Regular communication between CEO and Senior Leadership Team with employees
- Leadership Capabilities Framework and regular dialogue between managers and employees
- Expanded our Global Living Wage analysis to cover 15 countries, representing more than 97% of our employees
- Social dialogue with employee representative bodies in relevant countries
- Internship and mentorship programs
- Learning and Development—both in person and online
- Annual Safety Day and Nouryon Cares initiative including volunteer opportunities for employees
- SpeakUp! Hotline and Non-Retaliation Policy



Communities

- Community partnership with the Philadelphia Eagles, US:
 - Eagles Autism Challenge fundraiser
 - Eagles Business League Bike Build campaign
 - Nouryon All-Pro Teacher Campaign, US
- AP Chemistry class visit to Bridgewater Innovation Center, US
- Open day for students from Pittsburgh, US, which included a site and innovation center tour at our Deventer, Netherlands location
- Preparing meals for families in need at the Ronald McDonald House in Gothenburg, Sweden
- Vatsalya Trust Balikashram project: Supported an orphanage for 50 underprivileged girls, India
- International Women's Day celebration with the children at the Mumbai office, India
- Supporting Sunshine School for differently abled, India
- Open-to-Public (OTP) programs, China



Potential Investors and Lenders

- Equity analyst and lender engagement via meetings, earnings calls, and conferences
- Ratings and credit agency responses
- Annual financial result publication on our website
- Quarterly results shared with our lenders
- Task Force on Climate-related Financial Disclosures (TCFD)

3. Our Environmental Performance



- 3.1 Mitigating Climate Change
- 3.2 Water Resources
- 3.3 Eco-Efficiency, Energy and Circularity
- 3.4 Our Approach to Innovation
- 3.5 Environmental Data Sheet

 Click on the tile to go to the corresponding section.

Relevant Policies and Programs

- Health, safety, environment, and security (HSE&S), including product stewardship
- Responsible Care®
- [Quality, Health, Safety, Environment and Security](#) (QHSE&S) management system

As a global specialty chemicals leader, we are dedicated to reducing our environmental footprint. We strive to achieve this by taking measures in line with our QHSE&S policy, while enhancing operational efficiency and increasing the procurement of renewable energy. Our QHSE&S Policy includes preventing or minimizing the impact due to our facilities, activities, and products (potential dust, noise, odor, air emissions, road congestion, spills); through innovation in design, manufacturing, maintenance processes, and distribution, while optimizing resource efficiency along the value chain (e.g. minimizing and converting waste into valuable material).

Nouryon's Integrated Supply Chain (ISC) function manages our worldwide supply network. ISC's primary focus areas are operational and environmental safety and sustainability at our production facilities, as well as sourcing. This includes overseeing our safety performance, GHG emissions and energy use, sourcing raw materials, eco-efficiency program, and water-management strategy, which ensures that our sustainability performance is supported at all our manufacturing sites and throughout our supply chain.

We maintain a robust QHSE&S management system, consistent with rules, procedures and global standards, that incorporates the stated commitments.

Of our 63 global manufacturing sites, 59 have certified Environmental Management Systems, such as ISO 14001 or RC 14001. In addition, our ISC approach resulted in a 1% increase in asset uptime (excluding downtime due to weather events and global supply shortages), yielding approximately \$77 million in combined reductions in operational and raw material costs. This has allowed us to reallocate resources.

3.1 Mitigating Climate Change

Goals and Prospects

GRI 305 3-3

At Nouryon, we understand the profound impact of climate change on the global environment, society, and economic systems. As such, we are committed to reducing greenhouse gas (GHG) emissions across our entire value chain. As the shift towards a net-zero-carbon economy gains momentum, we are continually pushing to lessen our climate-related impacts, mitigate risks, and seize growth opportunities.

We have set targets to continue reducing our environmental footprint. To expedite and support Nouryon's journey towards achieving these goals, we developed a roadmap with concrete action steps, and in 2024, we continued to make progress. In 2024, we achieved a 19% reduction in our absolute Scopes 1 and 2 emissions versus our base year of 2019. This demonstrates significant progress compared to 2023 (13% reduction compared to 2019) and toward achieving our 2030 target.



Case study

Expansion of Operations and Sodium Chlorate Capacity in Brazil

In 2024, Nouryon commenced operations at its new Integrated Manufacturing Model (IMM) site in Ribas do Rio Pardo, Mato Grosso do Sul, Brazil. This site includes the production of hydrogen peroxide, sodium chlorate, and chlorine dioxide, significantly increasing Nouryon's sodium chlorate capacity and supporting the growing pulp and paper industry in the region.

The new site is part of Nouryon's long history of designing and building full-scale IMM sites, providing customers with tailor-made on-site facilities and essential raw materials for pulp production. Nouryon's expertise in pulp bleaching services and chlorine dioxide generators ensures smooth customer operations.

Nouryon has operated its sustainable IMM in Brazil since 2005, currently running six such sites in the country. The new Mato Grosso do Sul site generates green hydrogen used to manufacture hydrogen peroxide, extending Nouryon's product offerings.

With more than 80 years of experience, Nouryon offers a full portfolio of solutions to the pulp and paper industry, enhancing pulp fiber for strength, absorption, brightness, and viscosity in tissue and packaging applications.



Our 2024 Performance



35%

of our total energy consumption⁴
is renewable⁵



48%

of our electricity consumption
is renewable⁵

⁴ Includes fuel, electricity, and purchased steam.

⁵ Energy coming from sources such as wind, solar, hydro and from biomass.

Our Carbon Business Strategy and Roadmap to Reduce GHG Emissions

GRI 305 3-3, GRI 305-5

Our Carbon Business Strategy has a long-term horizon and is overseen by Senior Vice President, South America and Global Carbon Business Strategy, Eduardo Nardinelli. This team drives a robust, company-wide, scopes 1 and 2 GHG emissions reduction roadmap with tangible actions to achieve our 2030 targets. To inform this process, we assessed customer needs in strategic end-markets, to help them achieve their goals. It is guided by the following strategic pillars: Carbon Operational Excellence, Energy Transition, Innovation, and Value Chain Collaboration, and includes:

- **Scope 1:** We aim to enhance the efficiency of our operations and optimize our fuel mix
- **Scope 2:** We are committed to expanding our use of renewable energy via on-site renewable projects, power purchase agreements (PPA), and with Energy Attribute Certificates
- **Scope 3:** We are actively analyzing indirect GHG emissions from activities throughout our value chain, which includes evaluating potential lower-carbon raw materials with suppliers

Our 2024 Performance

We achieved a 19% reduction in total absolute Scopes 1 and 2 GHG emissions between 2019 and 2024. A notable contributor was our shift towards electricity from renewable sources up from 42% in the previous year to 48% of our total electricity consumption (compared to 36% in 2019), and up from 32% from the previous year to 35% of total energy, including steam, coming from renewable sources (compared to 30% in 2019).

Scopes 1 and 2

In 2024, 28 of the 63 manufacturing sites operated by Nouryon used electricity from renewable or low carbon sources, comprising 56% of the total electricity we use globally. Notable elements contributing to this, and related 2024 highlights, include:

South America:

- All nine sites we operated in Brazil used electricity from renewable sources. Additionally, Nouryon's IMM sites in Brazil offer on-location sodium chlorate and/or chlorine dioxide production to our customers. By optimizing resource use, enhancing energy efficiency, and minimizing transportation, we have significantly reduced carbon emissions throughout our operations at these IMM sites. Our streamlined processes further contribute to lowering the carbon footprint, demonstrating our commitment to environmental stewardship. These efforts help us address the increasing demand for products with lower carbon impact.
- In 2024, Nouryon commenced operations at our new IMM site in Ribas do Rio Pardo, Mato Grosso do Sul, Brazil. Nouryon has operated our sustainable IMM in Brazil since 2005, currently running six such sites in the country. Read more in the case study on [page 22](#).

Europe:

- All our sites in Belgium, Sweden and Finland use 100% electricity from renewable and/or low carbon sources.
- The following sites also operate using 100% electricity from renewable or low carbon sources: Cologne, Greiz, Leverkusen and Wurzen in Germany, Deventer, Herkenbosch and Rotterdam DME in the Netherlands.
- At the facility in Kvarntorp, Sweden, our partner Adven, a company that specializes in industrial energy transitions, operates a steam boiler that relies primarily on locally sourced residual products from the forestry industry, such as chipped branches and tops, to generate the heat required for our production processes. This steam boiler replaced liquefied petroleum gas with biofuel,

resulting in a 50% decrease in Scope 1 emissions in 2024 compared to 2022, and an anticipated 90% eventual reduction in Scope 1 emissions at this site.

- Nouryon opened a new container depot at the Bohus site through Brödrene Hansen Container Service. The primary objectives of the new container depot are to reduce carbon dioxide (CO₂) emissions, effectively manage the fleet, and achieve cost savings. Read more in the case study on [page 26](#).

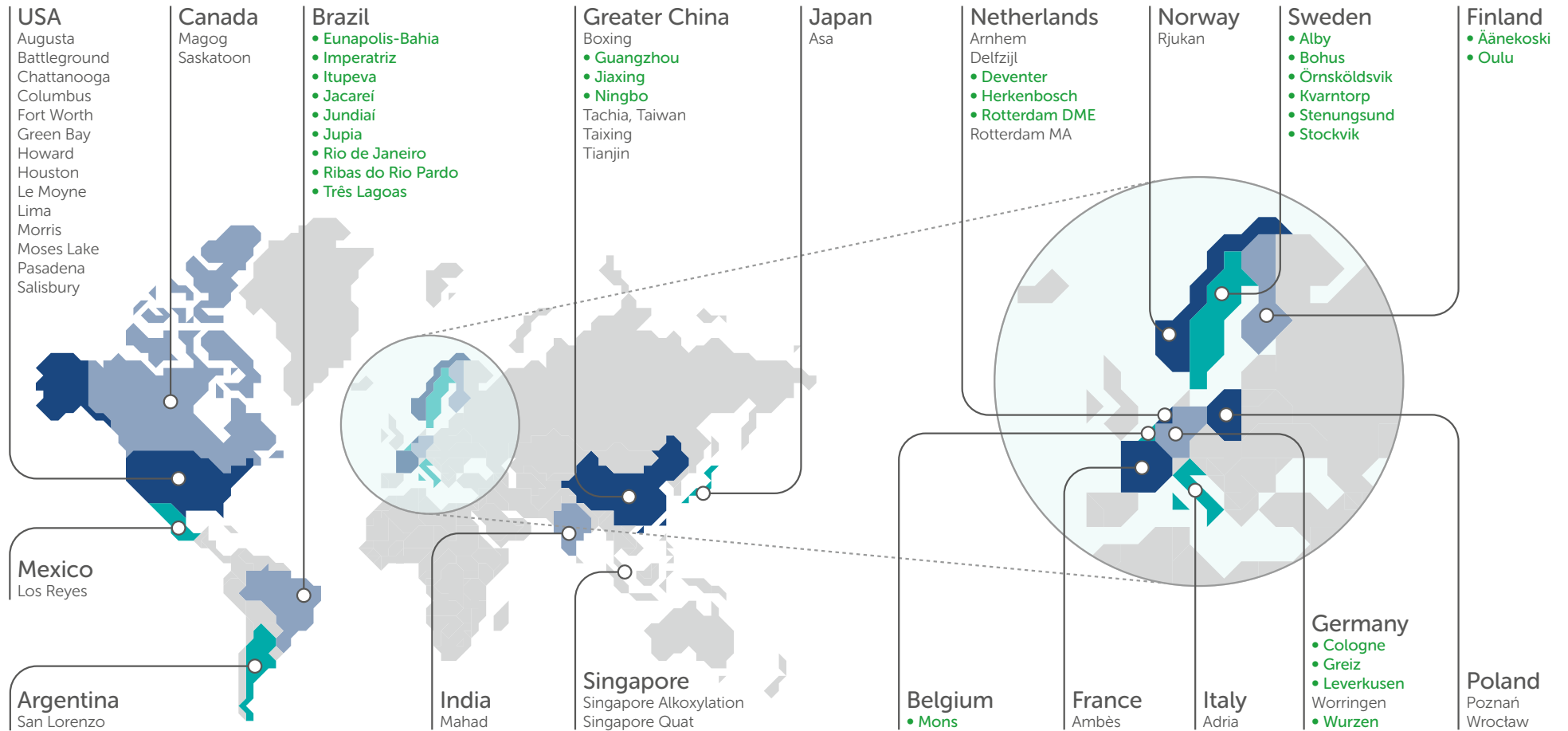
North America:

- In 2023, we signed a 30-year PPA with Convergent Energy and Power to supply 2-megawatts of solar power to our manufacturing site in Morris, IL, US. The on-site solar field is expected to be operational at the end of 2025, subject to local permits and approvals.
- At the end of 2023, we signed a contract with NRG Energy, Inc., under the brand Direct Energy, to start receiving renewable electricity at three of our four sites in Texas, US, in January 2025.

Asia:

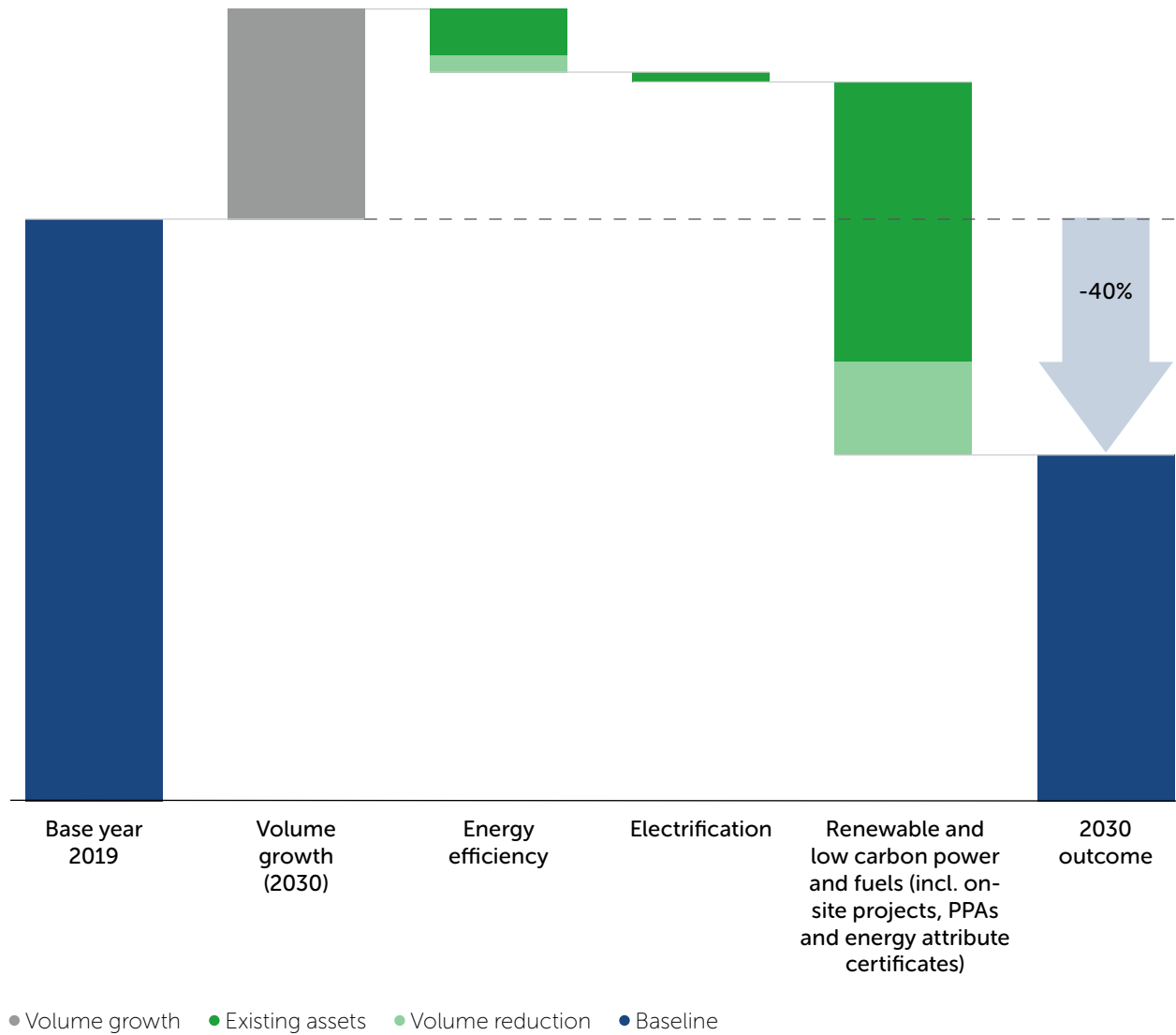
- 100% of our electricity consumption in Ningbo and Jiaying sites in China, has originated from renewable sources since 2023.
- Our Guangzhou site, China, runs on 100% electricity from renewable energy and operates an on-site solar field.
- In 2024, our Ningbo site was honored as one of the China Top 100 Green Electricity Consumption Companies. Read more in our case study on [page 26](#).
- In 2024, we signed a Solar Power Purchase Agreement (PPA) with EDP Renewables APAC (EDPR) in Singapore. The 14-year agreement aims to power Nouryon's sites with solar energy. This initiative marks an important step in increasing renewable energy usage and reducing Scope 2 carbon emissions.

In 2024, 28 out of our 63 manufacturing sites were sourced with 100% electricity from renewable and/or low carbon sources



• Manufacturing sites with electricity 100% from renewable and/or low carbon sources

Scope 1 and 2 GHG Absolute Emissions Reduction Pathway



Looking Ahead

The diagram on this page illustrates our pathway to meet our 2030 GHG targets. In line with much of 2024 progress, the key driver is transitioning to renewable electricity, investing in long-term PPAs, and other renewable energy programs to lower our Scope 2 emissions, including energy attribute certificates. Additionally, we continue exploring capital-efficient projects to decrease Scope 1 emissions at our sites, including equipment upgrades or replacements and design enhancements such as pre-heating, pressure, and temperature optimizations, and using lower carbon fuel in steam boilers.

Case study

Reducing CO₂ Emissions with New Container Depot at Bohus Site

Nouryon opened a new container depot at the Bohus site through Brødrene Hansen Container Service in 2024. The facility will serve as a check-in and check-out point for tank containers and will also carry out maintenance activities. The depot will store empty tanks, facilitating quicker loading processes without adding extra empty miles on the road.

The primary objectives of the new container depot are to reduce CO₂ emissions, take total control of the fleet, and achieve cost savings. By storing empty tanks on-site, the depot will enable more efficient loading operations at the Bohus site, thus minimizing unnecessary transportation and reducing the carbon footprint associated with moving empty containers.



Case study

Ningbo Site in China Recognized for Green Electricity Consumption

Nouryon's Ningbo site, the Company's largest global production facility, was honored in 2024 as one of the China Top 100 Green Electricity Consumption Companies. This recognition highlights Nouryon's commitment to environmental stewardship and sustainability, which is estimated to eliminate more than 100,000 tons of carbon dioxide emissions annually, significantly contributing to Nouryon's global sustainability agenda by reducing Scope 2 emissions.

This prestigious award was announced at the second Power Market High-End Forum, where esteemed organizations such as the China Electricity Council and Beijing Power Exchange Centre jointly released the '2023 China Top 100 Green Electricity (Green Certificate) Consumption Companies List.'

Nouryon's Ningbo site houses seven plants manufacturing chelates, ethylene amines, cellulose ethers, organic peroxides, surfactants, and expandable microspheres. The site also received recognition for outstanding performance in safe production and environmental protection for the previous year.





Monitoring and Reporting Our GHG Emissions

We report GHG emissions in CO₂ equivalents across three scopes: Emissions from our own operations (Scope 1)⁶, emissions from purchased energy (Scope 2)⁷, and emissions across our value chain (Scope 3, both upstream and downstream). We continually assess ways to improve our reporting. Starting in 2024, we include CO₂e emissions from other GHGs CH₄, N₂O, and Hydrofluorocarbons, as well as biogenic CO₂ in our emissions inventory. Emissions have been updated for prior years, back to our base year of 2019.

Scopes 1 and 2

We calculate our GHG inventory (Scopes 1 and 2) and other energy and environmental metrics on a quarterly basis. This allows us to track our progress against our targets. We have also developed dashboards with GHG and eco-efficiency data, enabling each of our global sites to monitor their performance using a site-at-a-glance tool. Additionally, we have developed internal reports and guidance procedures that outline our calculation methodology to ensure consistency from year-to-year.

Scope 3

By measuring emissions across the entire value chain, we can derive insights from the relative footprint of different parts of our value chain as well as potential reduction opportunities.

We aim to utilize data sources that are temporally relevant and geographically representative. Whenever possible, we prioritize physical quantities (such as the mass of purchased raw materials and generated waste, miles traveled) over spend-based data. Specifically:

- For purchased goods and services (category 1), particularly raw materials, and waste generated in operations (category 5) – we identified emission factors

that represent our global operations and supply chain.

- For fuel and energy-related activities, not included in Scopes 1 and 2 (category 3) – transport and distribution and well-to-tank losses for purchased steam was included.
- For upstream transport and distribution (category 4) – detailed transport and distribution was used and spend data was detailed per region and transport mode (ship, train, truck, and plane). We included the leasing of warehouses, depots, and tanks not in operational control by Nouryon as well as third-party transportation and distribution services purchased by Nouryon.
- For business travel (category 6) – we used a distance-based method for flights, rental cars, and personal cars, and the number of nights for hotel stays, as opposed to generic spend-based estimates.
- For employee commuting (category 7) – we used average country commute data and applied the specific DEFRA emission factor for traveling by car. Our calculation improved by including remote employees and shuttle bus service in Brazil and China.
- For the end-of-life treatment of sold products (category 12) – we incorporated recycling and wastewater treatment pathways and based calculations on sales volume instead of production volume to better approximate regional waste fates for our products like landfilling, incineration, and recycling. Water contained in end products was excluded from solid waste treatment and assumed to be part of wastewater treatment.
- For multiple categories – we used more-recent database sources.

6 'Scope 1' absolute GHG emissions refers to the total direct emissions CO₂ equivalent from the assets we own or control (for example, CO₂ emissions due to combustion of fuel at our production facilities to generate steam) and is calculated as the sum of direct CO₂ emissions and CO₂ related to non-biomass fuels.

7 'Scope 2' absolute GHG emissions refers to the total indirect emissions CO₂ equivalent from the energy we procure (for example, CO₂ emissions from the electricity and steam we buy and is calculated as the sum of indirect CO₂ related to purchased electricity, steam and hot water.

Our 2024 Scope 3-Related Methodology and Performance

We continuously improve our methodology for our Scope 3 emissions inventory, which covers calculating emissions across the entire value chain. We reviewed primary and secondary data sources and continuously refine our approach to increase the rigor of our calculations and methodology. This included the following improvements:

- For our raw-materials-related activities included in purchased goods and services (category 1) – the top 100 material groups by mass were mapped to ecoinvent 3.11 factors or proxies if suitable factors were not available in ecoinvent. All other materials were assigned to categories, which were mapped to ecoinvent 3.11 emission factors. Supplier-specific emission factors were used in the calculations in a few cases where no ecoinvent 3.11 factors were available.
- For leased assets (category 8) – we included this category for the first time this year. The GHG emissions were based on estimated energy consumption of the leased facilities. The energy consumption per facility was estimated using the known areas of the facilities and energy intensity factors. The energy intensity factors were estimated using information from the US EIA's 2018 Commercial Buildings Energy Consumption Survey dataset.
- For use of sold products (category 11) – we added next to our high purity CO₂ sales from Stenungsund, our DME sales from Rotterdam.

Estimated Scope 3 emissions account for 80% of Nouryon's total emissions, with purchased goods and services comprising the largest category of the cradle-to-gate approach

A Scope 3 analysis inherently involves certain assumptions, and methodologies and tool usage will evolve over time. We will continue refining our Scope 3 calculations based on available data and use the results to guide our journey towards reducing our GHG emissions across our value chain.

Lowering Customer GHG Emissions

GRI 305-5

Many of our solutions are essential for reducing GHG emissions for our customers. For instance, our Expancel® expandable microspheres can lighten packaging and components of vehicles, which improves transportation fuel efficiency and reduces transportation-related emissions. Similarly, we offer solutions that are crucial to renewable energy-related products. These include lightweight composite parts in wind turbines and insulation for high-quality, high-voltage cables, as well as aiding in making solar panels durable and highly efficient. Another example is our solutions for cool roof coatings. By lowering the need for air conditioning, these coatings help reduce energy costs and GHG emissions. Read more in the case study on [page 30](#).

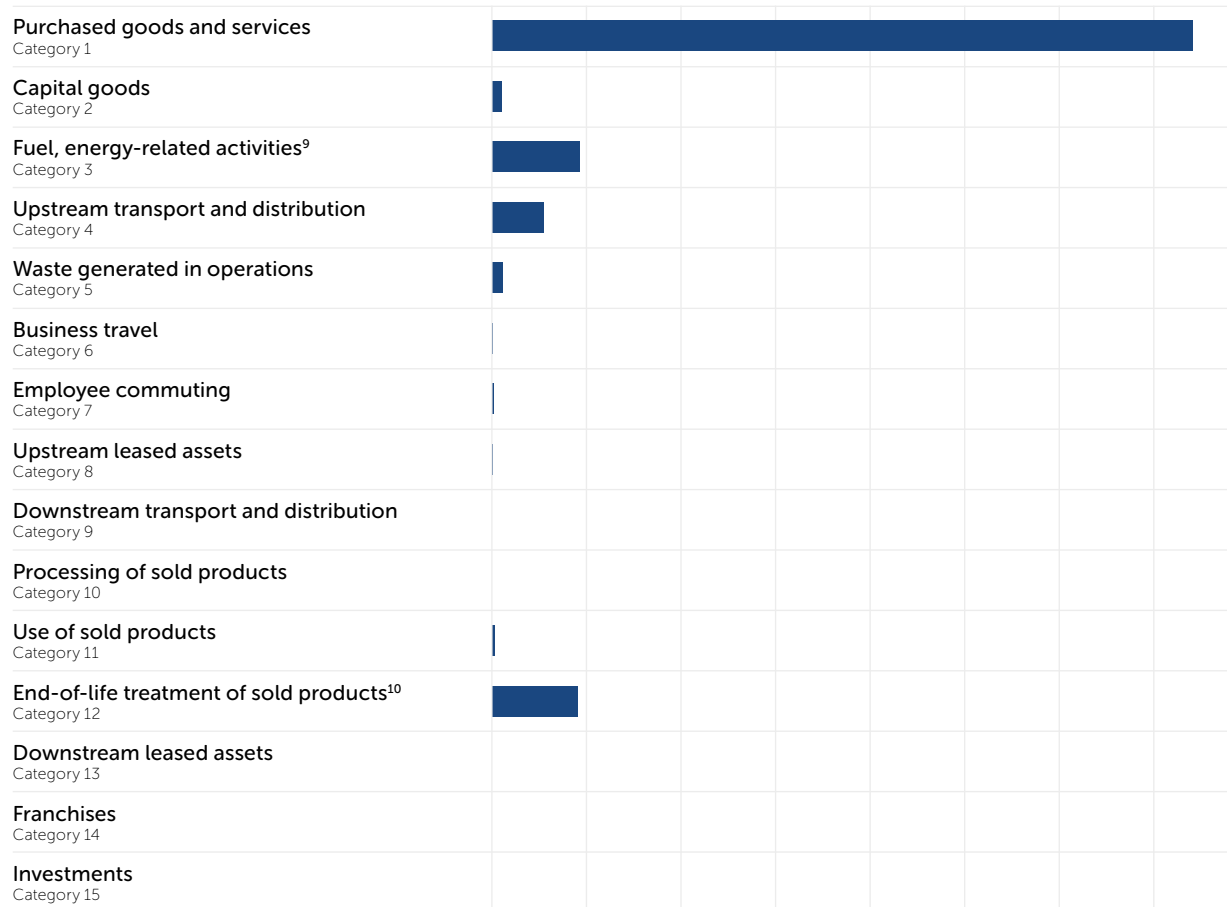
Product Carbon Footprint

Nouryon is further developing its product carbon footprint (PCF) and life cycle assessment (LCA) capabilities. To assist our customers, Nouryon uses LCAs to evaluate and enhance the environmental performance of our products within the value chain. A PCF is one of the many environmental impact categories derived from the LCA. It calculates total GHG emissions – CO₂ and other GHG emissions (expressed as CO₂ equivalent) – generated by a product throughout its life cycle. PCFs provide our customers with valuable information for assessing GHG emissions and offer transparency regarding the GHG emissions associated with our products.

At Nouryon, we take emissions across our entire value chain into account. This holistic approach provides us with deeper insights into potential reduction opportunities. Furthermore, it guides our Scope 3 reduction plans, including potential collaborations.

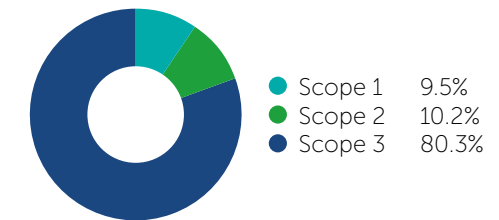
Nouryon is a member of Together for Sustainability (TfS), a global initiative of 55 chemical companies committed to raising sustainability standards throughout the chemical industry. As part of this initiative, members pledge to make sustainability improvements within their own – and their suppliers' – operations. TfS is also advancing methodologies and standardization in calculating Scope 3 (upstream) GHG emissions, which constitute a significant share of the chemical industry's carbon footprint.

Calculated Size of Scope 3 Categories⁸



- ⁸ The following categories are excluded from our calculations: Category 9: Disaggregated data is not readily available to determine the amount in the selling price of a product that applies to transportation and distribution (customers typically pay for transportation). Category 10: Given the wide variety of intermediate products sold by Nouryon, obtaining data for this category is prohibitive. Results would be based on broad assumptions, lack accuracy and lead to a potential misrepresentation of our Scope 3 footprint. Category 13: Nouryon does not have any downstream leased assets. Category 14: Nouryon does not own or operate any franchises. Category 15: Nouryon's only investments are with other companies through joint ventures. However, data is not available due to competitive considerations.
- ⁹ Not included in Scopes 1 or 2.
- ¹⁰ Includes intermediate products.

Scopes 1, 2, and 3 Calculated Emissions (2024)



2024 Value Chain Collaboration

Reducing Scope 3 emissions is challenging for the entire value chain. Aligned with our commitments, we aim to collaborate with our suppliers as we tackle the challenge of developing additional low carbon and sustainable solutions, and we are requesting supplier life cycle assessment (LCA) data. In 2023, we launched an initiative to request product PCF data from suppliers of our top raw materials. In 2024, we maintained this strategy, accelerating the pace at which we obtained PCF data from our suppliers. This will improve the accuracy of our data and can help us identify potential opportunities to reduce emissions and meet the growing needs of our customers for low carbon solutions.

In 2024, TfS launched the PCF Exchange solution powered by Siemens' SiGREEN technology, a platform providing a secure and efficient method for tracking and exchanging product-level emissions data. We have since implemented SiGreen as part of our PCF request and PCF sharing initiatives.

Cool Roof Coatings – The Future of Urban Cooling

The increasing frequency and severity of global heatwaves pose significant challenges for maintaining comfortable indoor temperatures in cities worldwide. Consequently, the demand for energy-efficient and sustainable building solutions is more critical than ever. One innovative solution gaining traction is cool roof coatings, which reflect more sunlight and absorb less heat, thereby reducing interior building temperatures. Nouryon's Levasil® colloidal silica and Expancel® expandable microspheres are playing a pivotal role in this revolution by enhancing the performance of cool roof coatings. Expancel® expandable microspheres improve flexibility and total solar reflectance (TSR), creating a cellular structure that significantly reduces the external surface temperature of buildings by up to 15 degrees Celsius (27 degrees Fahrenheit¹¹). Levasil® colloidal silica elevates durability, adhesion, and dirt pickup resistance, enhancing solar reflective properties and performing well in various climates.

Cool roof coatings offer benefits beyond individual buildings. By lowering the need for air conditioning, these coatings help reduce energy costs and GHG emissions. This makes cool roof coatings attractive for architects, builders, and property owners aiming to reduce energy costs, meet environmental regulations, and achieve green building certifications. Nouryon's innovative materials in cool roof coatings are paving the way for more sustainable and energy-efficient urban environments

¹¹ May vary depending on intensity of solar radiation and roof type.



Did you know?

Lighter Shoe Soles Are Not Just Better for Jogging – Expancel® WB Microspheres

Nouryon launched Expancel® WB microspheres, a cutting-edge innovation in expandable microspheres for white shoe-sole applications, at the 2024 Chinaplas exhibition in Shanghai, China. This product addresses the growing demand for white shoe soles in the clothing and apparel industry, meeting consumer interest while ensuring performance and comfort.

Expancel® microspheres feature a polymer shell encapsulating a gas. When heated, the gas expands, allowing the microspheres to be used as a lightweight filler and blowing agent. This results in different surface effects and lighter end products, reducing costs and environmental impact. Expancel® WB microspheres improve the whiteness, elasticity, and foam stability of shoe soles while helping to reduce carbon emissions.

The new Expancel® WB microspheres products will be available globally through Nouryon's distribution network. As a leading manufacturer of expandable microspheres, Nouryon has produced Expancel® microspheres for more than 40 years, with sales in over 80 countries. They are produced in Sweden and the US, with local supply capabilities in China and Brazil.



Case study

ISCC PLUS Certification for Sustainable Surfactants and Chelating Agents

In 2024, Nouryon obtained the International Sustainability and Carbon Certification (ISCC) PLUS standard to produce ethylene oxide, ethanolamines, ethylene amines, and surfactants derived from these raw materials at its Stenungsund, Sweden site. As a leading global producer of ethylene amines and surfactants, this certification marks a significant milestone in Nouryon's commitment to sustainability. In the same year, we also certified our site in Herkenbosch, the Netherlands, to the same ISCC PLUS standard. The certification covers the use of biobased and/or bio-circular feedstocks to produce biodegradable chelating agents with up to 100% renewable carbon index (RCI), corresponding to significantly reduced product carbon footprint for those materials.

This achievement, along with the recent launch of ISCC PLUS certified Green MCA, highlights Nouryon's dedication to delivering sustainable solutions. Ethylene oxide, ethanolamines, and ethylene amines and chelating agents are crucial in producing surfactants used in cleaning, personal care, crop protection, oilfield, paper, and textile manufacturing. These surfactants are essential in detergents, shampoos, and other cleaning agents for both home and industrial applications. Nouryon's green alternatives significantly reduce product carbon footprints while maintaining high quality and performance.





Sustainable Certified Products

Nouryon produces certified biomass balance products in International Sustainability and Carbon Certification (ISCC) PLUS-accredited manufacturing sites in multiple locations and supplies them to customers globally. For example, Nouryon is the first and only company in the world to sell ISCC PLUS-certified green monochloroacetic acid (MCA)¹² at our sites in Delfzijl, the Netherlands, and LeMoyne, Alabama, US. Renewable raw materials are sourced from a variety of plant-based sources and established raw material value chains, some being from side streams of industrial processes. This ensures that the cascading principle is followed, and transparency and traceability can be determined.

Additional certifications include:

- Green ethylene oxide¹³, ethanolamines, ethylene amines, and surfactants derived from these raw materials at our Stenungsund, Sweden, site. As a leading global producer of ethylene amines and surfactants, this certification marks a significant milestone in Nouryon's commitment to sustainability. Read more in our case study on [page 31](#).
- At our sites in Worringen, Germany, and Herkenbosch, the Netherlands, we will not only be able to produce 100% green chelating agents¹⁴ but the carbon footprint reduction vs. conventional chelates is also significant.
- At our Rotterdam, the Netherlands site, we produce DME, which is an essential component in a wide range of personal care applications. As an efficient propellant, it is widely used in aerosol-based products including hair sprays, deodorants, and sunscreen sprays, where it helps deliver a fine, even mist for smooth application and user convenience. We have not only ISCC PLUS but also ISCC EU and GHG certifications in place.

- At our sites in Delfzijl, the Netherlands, and LeMoyne, Alabama, US, we are also certified to the International Sustainability and Carbon Certification standard ISCC PLUS to produce green MCA. Green MCA offers a significantly lower product carbon footprint versus traditional MCA, which reduces our Scope 3 emissions and those of our customers.
- In 2025, we continue to expand our certification to new sites in new regions, including South America and Asia Pacific.

As we continue to develop new and innovative products using more sustainable raw materials, we will further explore how these initiatives can contribute to improvements in our Scope 3 carbon footprint.

¹² Based on biobased acetic acid and chlorine produced with ISCC Plus certified renewable (or low carbon) electricity.

¹³ Based on biobased mass balanced ethylene.

¹⁴ 100% Renewable Carbon Index when including actual content plus mass balanced attributed content.

3.2 Water Resources

Our manufacturing sites initiate measures to improve water management by reducing water use or using alternative water sources. For instance, at our Salisbury, NC, US site, certain wastewater is recycled within processes for reuse, rather than being sent to wastewater treatment. Our Fort Worth, TX, US site has implemented measures to improve water management, including:

- Extending production cycles to reduce water consumption in the spray dryer.
- Decreasing the quantity of water added to in-process material to minimize the amount of water required to be dehydrated to achieve the desired finished-production solid concentration.
- Lowering process temperatures to reduce water evaporation in cooling towers.
- Increasing the target solid concentration for certain products to minimize dehydration rate and water addition during production.
- The introduction of a new filtration system, which reduces the frequency of changes and the quantity of water required to clean the filtration, and reduces water discharge.

Nouryon conducts an annual water risk assessment with a survey of all sites globally. We have also used the WRI Aqueduct tool to further inform water risks. This forms the basis of our assessment of sites with high water stress, as reported in our environmental data. We previously identified two sites – Ningbo and Boxing in China – as waterstressed, and other sites to be monitored. This process also informs potential improvement opportunities. These two sites are exploring ways to improve their water management, such as reviewing projects to include reuse or recovery of wastewater or wash water, reducing water consumption, enhancing washing efficiency with less water, and exploring the use of alternative types of water.

Our 2024 Performance

Between 2019 and 2024, our freshwater consumption intensity increased by 4%. We are in the process of formulating a plan to ensure that we achieve our 2030 freshwater consumption intensity target.

We operate a rainwater harvesting system at our Mahad site in India. This involves the collection of rainwater from a rooftop area of 100 square meters and its diversion into a water storage tank. The system is designed to collect approximately 300 cubic meters of rainwater annually.

Case study

Nouryon's Groundbreaking Polymer Recycling Technology

In a world seeking circular solutions to reduce waste and environmental impact, innovative recycling methods are essential. Nouryon leads this innovation with technology that redefines the reuse of polymers, polypropylene, and polyethylene, supporting the circular economy by allowing high-quality recycled plastics to be used repeatedly across various application, from packaging to garden furniture.

The production of everyday items requires polymers with specific melt properties. When these items are discarded, they become part of a mixed plastic waste stream destined for recycling. Traditionally, diverse polymer melt properties have posed significant challenges. Our technology excels by precisely tuning the melt properties of recycled plastics, matching the requirements of various end uses. This breakthrough allows more recycled plastic to be used in new products without compromising quality.

Integrated at the extrusion step of the mechanical recycling process, Nouryon's technology activates by heat to generate reactive radicals, modifying the recycled material. Remarkably, it leaves only trace amounts in the final product, enabling manufacturers to claim 100% recycled content confidently.

Nouryon is committed to sustainable innovation, enhancing recycled materials' quality and versatility.



3.3 Eco-Efficiency, Energy and Circularity

The chemical industry plays a pivotal role in facilitating more sustainable and circular production. Enhancing the eco-efficiency of our facilities is a vital component of our sustainability approach.

Our global health, safety and environment (HSE) procedures set requirements to help foster environmental protection at all our sites. For instance, site management continuously seeks ways to reduce environmental impacts, waste generation, and energy consumption through objective plans and targets outlined in each site's Improvement Plan. Each site management team is responsible for maintaining an Environmental Management System that identifies significant environmental impacts and ensures they are appropriately managed.

Each site sets annual energy-reduction targets and conducts water balance assessments. Capital projects above a set threshold undergo sustainability reviews, including carbon efficiency. Nouryon monitors eco-efficiency through a centralized dashboard, with sites tracking performance. We continue to innovate by developing circular, sustainable products—using renewable feedstocks like cellulose and co-locating with customers to reduce transport and share resources. Our IMM sites in Brazil also use biobased steam.

Waste

We remain committed to achieving our 2030 total waste intensity target. Approximately 50% of our sites successfully reduced their waste intensity by finding alternative uses for waste streams and effectively converting waste into by-products. As a result, our total waste intensity decreased by 6% between 2019 and 2024.

Improving Recyclability

Our products can enhance the recyclability of our customers' products. For instance, we provide polymer catalysts that can modify the properties of mechanically recycled polymers, enabling them to be upscaled and used in applications currently reserved for new virgin polymer streams. Our products also help maintain high quality in finished products made from recycled plastics. More information about this groundbreaking technology is found on the [previous page](#) of this report.

Reducing Waste Through Green Shipping

In addition to product design, we seek opportunities to reduce waste in our value chain. For instance, at our Asa site in Japan, our customers return empty containers for products, so that these can be reused or recycled. Since 2024 the site has received over 155,000 containers from our customers for reuse or recycling.

We also use the on-site expansion of our Expancel® expandable microsphere product and point-of-use mobile expanders to decrease shipping volumes and costs. Every truckload of material our customers expand on-site saves 30 to 40 truckloads.

Nouryon is constantly seeking ways to ship more efficiently to save costs and reduce our environmental impact. This includes utilizing warehouses closer to customers and reusable dunnage, which provides a dual benefit by reducing packaging waste and eliminating the need for special cleaning at customer sites.





Did you know?

Reducing Waste with Sustainable IT Equipment Disposal

At Nouryon, we are committed to sustainability and responsible resource management. Did you know that one of our initiatives is the environmentally friendly disposal of electronic waste, in partnership with Ingram Micro Lifecycle? This program not only supports our sustainability goals but also offers significant benefits to our Company, including:

- **Environmentally friendly disposal:** Our electronic waste is either recycled or reused, reducing the environmental impact and conserving valuable resources
- **Enhanced cybersecurity:** Company data is securely wiped and protected during the disposal process, ensuring our information remains safe
- **Cost benefits:** We receive financial returns when old equipment is resold, contributing to our cost-saving efforts

Measurable Impact

The circular disposal of our used IT equipment includes an annual estimation of resources saved. After each pick-up, Ingram Micro Lifecycle processes the equipment and provides a detailed report showing the fate of the devices. This transparency allows us to track the environmental benefits and financial returns from reselling reusable equipment. Through this partnership, we have avoided approximately 25,000 pounds of waste, significantly reducing our environmental footprint.

In 2024, Ingram Micro Lifecycle collected almost 2,000 units of used IT equipment from all our sites worldwide. This global coverage ensures that our sustainability efforts are consistent and impactful across all locations.



Did you know?

2024 Marked 50 Years of Amphomer® polymer – A Milestone of Innovation

In 2024, Nouryon celebrated the 50th anniversary of Amphomer® polymer, a pioneering force in the hair care industry since 1974. Amphomer® polymer has set unparalleled standards with its market-leading stiffness and exceptional high-humidity curl retention properties, shaping countless hairstyles around the globe for more than half a century.

A unique, market-leading hard-hold hair fixative, Amphomer® polymer has been a cornerstone of Nouryon's Home and Personal Care Business, and its versatility extends far beyond hair styling. Amphomer® polymer is found in a variety of hair products, including hair sprays, gels, waxes, cream gels, hair paste, mousse, pomades, hair clay, and styling powders. Amphomer® polymer is also used in products such as deodorants, dental floss sticks, false eyelashes, glitter spray, nail repair solutions, hair root color retouch sprays, and even lice control treatments. Its ability to provide strong hold and durability in high humidity has made it a preferred choice for consumers and professionals alike.



Did you know?

Nouryon Helps Enable the Use of Recycled Plastics in Applications Previously Limited to Virgin Plastics

Nouryon completed a significant capacity expansion for organic peroxides at its manufacturing facility in Ningbo, China. This expansion has doubled the production capacity to 6,000 tons each for Perkadox® 14 and Trigonox® 101 organic peroxide products. These products are crucial for modifying polymer properties and cross-linking rubbers and thermoplastics, enhancing the properties of recycled polypropylene (R-PP), and enabling the use of recycled plastics in applications previously limited to virgin plastics.

This expansion is part of a series of investments by Nouryon to strengthen its manufacturing network of critical ingredients for the polymer industry in China. It is also aligned with rising interest in improving recycled polypropylene properties as a result of increased consumer awareness and stringent regulations.

Nouryon, a leading supplier of organic peroxides with a history dating back to the early 1920s, produces organic peroxides in Ningbo and Tianjin, China; Asa, Japan; and Mahad, India. Perkadox® and Trigonox® are well-known brands in the polymer industry, supporting its evolving needs.



Did you know?

Nouryon is One of the World's Leading CMC Producers – Essential to Battery Power

Since acquiring carboxymethyl cellulose (CMC) technology in 2020, Nouryon has expanded its portfolio to serve broader end market applications. CMC is a versatile, sustainable, biobased water-soluble polymer used as a binder, dispersant, rheology modifier, and thickener.

In lithium-ion battery applications, CMC enhances binder and separator reinforcement, optimizing the aqueous binder system performance of electrodes and reinforcing the separator between the anode and cathode. Nouryon's high-performing CMC improves the electrode coating process, contributing to better battery power retention and delivery. The advanced CMC solution offers benefits such as lower insoluble content, stable slurry and dispersion, and faster dissolving properties.

Nouryon's chemistry solutions support the full battery life cycle, from mining and refining to material production and recycling. The robust product portfolio, combined with world-class technology, application expertise, an optimized supply chain, and global logistics, delivers significant advantages to customers.

Nouryon's portfolio for battery cell materials includes:

- AkuPure™ electrode and separator binding solution
- Eka® HP hydrogen peroxide
- Sodium hydrosulfide (NaSH) and sulfuric acid
- Ketjenblack® EC electro-conductive carbon black
- Diethylzinc (DEZ) and trimethylaluminum (TMAL)
- Levasil® colloidal silica
- Expancel® thermoplastic microspheres

As one of the world's largest global producers of CMC and with more than 80 years of manufacturing experience, Nouryon offers in-house laboratory, quality control, dedicated research and development (R&D), application support teams, and pilot plant facilities, ensuring safety and reliability.



3.4 Our Approach to Innovation

GRI 2-6

Innovation is central to our strategy, driving technological leadership and enabling above-market growth across diverse end markets. By delivering sustainable, tailored solutions, we meet the unique needs of our customers' applications. Our innovation strategy is vital to our commercial success, focusing on building world-class expertise in core platforms to empower our customers.

Our significant R&D capabilities, superior technical know-how, and deep understanding of our customers and their markets position us as leaders in creating sustainable solutions. Our products and services are integral to our customers' operations, reflecting our intimate knowledge of their needs. This customer-centric approach allows us to strengthen existing partnerships and forge new ones, designing solutions that meet evolving goals for effectiveness, efficiency, and sustainability.

We accelerate the co-development of sustainable solutions through four innovation platforms and 13 Innovation Centers, which are equipped with deep application expertise to enhance speed and service to local markets. Our strategy also includes expanding our chemistry and solutions toolbox through strategic partnerships and targeted mergers and acquisitions.

Innovation Highlights:

- Since 2019, we have introduced approximately 200 new products, contributing to around 10% of our revenue in 2024.
- Investment in localized innovation centers is enhancing customer intimacy and accelerating the development of customized solutions.
- Approximately 75% of our product innovation pipeline is focused on sustainability benefits.
- We have a robust team of around 650 scientists and engineers, including 135 PhDs, and maintain about 60 active collaborations and partnerships.

- We hold approximately 2,100 active patents and applications.

Innovation Centers: Our global network includes 13 Innovation Centers. These centers facilitate the sharing of knowledge and resources across sites, driving innovation in various regions.

Customer-Centric Innovation Platforms: We operate four key innovation platforms: Advanced Surfactants, Engineered Particles, Advanced Polymers, and Bio-materials. These platforms deliver cross-market solutions through our three complementary segments: Consumer and Life Sciences, Resource Solutions, and Performance Materials.

Our 2024 Performance

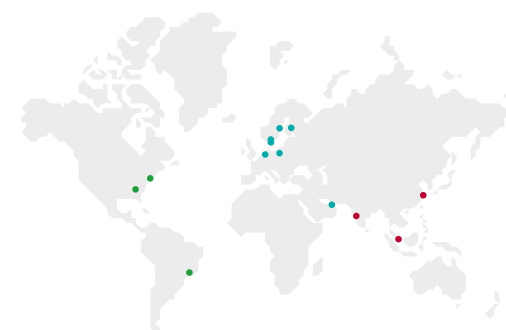
In 2024, 74% of our product innovation pipeline came from our Eco-Solutions and 35% of revenue came from our Eco-Premium Solutions. Read more about Eco-Solutions and Eco-Premium Solutions on [page 41](#).

Additionally, we launched a state-of-the-art Innovation Center in Mumbai, India, and Customer Paint Application Center at our Bridgewater, US, location. See case studies on pages [16](#) and [39](#) respectively for more information.

Some examples of notable product launches in 2024 include Expancel® BIO Microspheres – partially biobased lightweight filler and blowing agent ([page 39](#)), Bero!® Nexus surfactant for the cleaning market ([page 40](#)), and a sustainable cellulose-based replacement for EPS Foam ([page 40](#)).



13 Innovation Centers worldwide



Americas: 3

EMEA: 7

Asia Pacific: 3

Case study

Opening of Customer Paint Application Center in the US

Nouryon opened a new paint application center in Bridgewater, New Jersey, US, in 2024. Prioritizing architectural decorative paints, the center aims to drive the development of new paint technologies, enhance response times, and accelerate the evaluation of market-ready innovations.

Equipped with state-of-the-art testing facilities, the center is designed to meet the demands of today's discerning paint customers. Experienced paint formulation scientists and technicians ensure that the work conducted in the lab meets the latest standards and aligns with customer expectations.

Serving as a technical support hub, the center will develop innovative additive solutions to optimize paint formulations. It will complement Nouryon's portfolio of products, including Bermocoll® and Alcogum® rheology modifiers and Alcosperse® dispersants. The focus will be on improving the balance of properties in paints and coatings, optimizing cost performance, and meeting customer sustainability objectives.



Case study

Introducing Expancel® BIO Microspheres – Partially Biobased Lightweight Filler and Blowing Agent

Nouryon introduced Expancel® BIO microspheres at the 2024 Foam Expo Europe in Stuttgart, Germany. This groundbreaking product concept marks a significant advancement in Nouryon's innovation portfolio, offering a partially biobased and high-performance lightweight filler and blowing agent that addresses the evolving needs of the market.

Expancel® BIO microspheres is designed to be both partially biobased and highly efficient, serving as a versatile solution for various applications, including coatings, adhesives, construction materials, automotive components, shoe soles, and porous ceramics. This innovation reduces material weight and enhances properties while supporting the global shift towards eco-friendly and responsible production practices.

The introduction of Expancel® BIO microspheres underscores Nouryon's dedication to advancing the industry with renewable solutions. By replacing conventional fossil-based materials with up to 55% biobased alternatives, Expancel® BIO microspheres promotes the principles of a circular economy while ensuring high performance and environmental stewardship.



Case study

Launch of Berol® Nexus Surfactant for the North American Cleaning Market

Nouryon introduced Berol® Nexus surfactant, a next-generation multifunctional hydrotrope, at the 2024 ACI Annual Meeting and Industry Convention in Orlando, Florida, US. This innovative cosurfactant is designed to optimize performance and activity, offering significant advantages in household and industrial and institutional cleaning applications, with a particular focus on low-temperature laundry.

Berol® Nexus, available in a 70% concentrated aqueous liquid form, features a low-color and low-viscosity profile, making it suitable for various cleaning formulations. It is particularly effective against greasy soils in laundry and auto-dish applications, addressing the trend towards lower wash temperatures.

Nouryon's global innovation team developed Berol® Nexus through extensive research and development efforts. The product exemplifies Nouryon's commitment to providing innovative ingredient solutions that enhance sustainable and superior formulations across geographies.

Alongside Berol® Nexus, Nouryon recently broadened its portfolio with Berol® Nexxt and Dissolvine® GL Premium, further demonstrating its dedication to innovation in the cleaning market.



Case study

Sustainable Cellulose-Based Replacement for EPS Foam

Nouryon, in partnership with MoRe Research and LindePac, has developed a cellulose-based material to replace traditional expanded polystyrene (EPS) products. This biobased alternative, launched in a government-funded project in 2019, offers significant environmental benefits, including the ability to be recycled as paper.

The project leverages Nouryon's Expancel® microspheres, which serves as a crucial additive, providing lightweight, shock-absorbent, and insulation properties. The resulting cellulose-based granulate (referred to as Cellofiber) exhibits properties equivalent to traditional EPS, with over 95% biodegradability and the potential for full biodegradability. This innovative material can be recycled with other paper products, enhancing its sustainability.

A team of experts from Nouryon, MoRe Research, LindePac, and Cellofibers Sweden AB are working on further development, product testing, and commercialization. A patent application for Cellofiber granules has been filed, and full-scale production tests and field evaluations are planned. This collaboration aims to refine the product and move closer to market introduction, marking a significant step towards sustainable packaging solutions.



Products From Recycled and Biobased Feedstock

To meet the growing demands of our customers for enhanced product sustainability, we develop products using biobased raw materials that are partially or fully derived from natural sources. More sustainably produced biobased sources enable a more circular economy and can also have a lower carbon footprint compared to alternatives across their life cycle, thereby reducing GHG emissions.

We also utilize co-product materials as inputs for higher-value products, including tallow and cotton linters, among others. For instance, we manufacture rheology modifiers for the paint industry based on cellulose made from cotton linters.



Eco-Premium Solutions and Eco-Solutions

Eco-Premium Solutions and Eco-Solutions are fundamental drivers of our sustainability approach for creating more value with improved sustainability attributes of the products we sell, and of the processes we use to manufacture them.

Eco-Premium Solutions

At the heart of our innovation philosophy are Eco-Premium Solutions that offer sustainability benefits over mainstream alternatives in the market, while delivering the same or superior product performance.

The sustainability benefits of our Eco-Premium Solutions can include one or more of the following:

- Improved energy efficiency (consumption)
- More efficient or lower use of natural resource/raw materials
- Lower emissions and waste
- Lower toxicity
- Reduced risks of accidents during production, transportation, etc.
- Lower land use
- Improved health/well-being effects

When an impact can be quantified, we classify our products as Eco-Premium Solutions if an underlying sustainability benefit demonstrates at least a 10% lower impact on a given criterion when assessed along the total product life cycle (cradle to grave). For example, products that help customers lower their energy consumption may represent Eco-Premium Solutions based on reduced energy or fuel use. In addition to having one or more of the benefits, Eco-Premium Solutions do not have significant adverse effects in any of the other categories.

Among others, Nouryon's Eco-Premium Solutions include:

- Biobased polymers
- Dissolvine® M and GL – readily biodegradable chelating

agents for more sustainable detergents

- High-performance chelated micronutrients that deliver essential metals to plants, increasing agricultural productivity and crop quality
- Proven high-quality products for asphalt applications, which lower energy consumption for our customers
- Expancel® expandable microspheres, which allow paper and board manufacturers to dose a higher content of recycled fibers without losing bulk in the board
- Levasil® colloidal silica, which works exceptionally well as a stabilizer, durability enhancer, and strength developer in construction applications
- Kromasil® chromatography media is used for high performance purification of APIs (active pharmaceutical ingredients)

Our 2024 Performance

In 2024, 35% of revenue came from our Eco-Premium Solutions. We completed a nearly 50% production capacity expansion for Levasil® colloidal silica products at our Green Bay, Wisconsin, US, manufacturing facility where we also produce our Expancel® expandable microspheres. This was an important milestone to better serve Specialty Additives customers in North America in the packaging, construction, mining, and automotive industries, and complements our existing facilities in Sweden, China, and Brazil. Additionally, Kromasil® was honored at Tides China Conference – Celebrating Innovation and Dedication in Peptide Research. See case studies on pages [42](#) and [43](#) respectively for more information. As previously indicated, we also launched Expancel® BIO Microspheres – a partially biobased lightweight filler and blowing agent ([page 31](#)).

Did you know?

Nouryon is Advancing Sustainable Cookware with Levasil® Colloidal Silica

Nouryon's Levasil® colloidal silica is transforming the cookware industry by offering a sustainable alternative to PTFE-based coatings. Derived from sand and water, Levasil® colloidal silica acts as a three-dimensional cross-linker that enhances the durability, safety, and environmental performance of ceramic coatings.

The 'egg test,' a rigorous evaluation method, demonstrates the superior non-stick properties of ceramic coatings with Levasil® colloidal silica, showcasing its effectiveness in real-world culinary applications. The silica strengthens and densifies the coating layer, providing resistance to high temperatures, abrasion, scratches, and corrosion.

In response to growing demand, in 2024, Nouryon expanded the production capacity of Levasil® colloidal silica by 50% at its Green Bay, US, site. This expansion highlights Nouryon's commitment to innovative and sustainable solutions in the cookware industry.



Case study

Expansion of Levasil® Colloidal Silica Capacity in the US

In 2024, Nouryon completed a nearly 50% production capacity expansion for its Levasil® colloidal silica products at its Green Bay, Wisconsin, US manufacturing facility. This expansion addresses the rising demand for colloidal silica, particularly in North America, and extends Nouryon's global manufacturing footprint to better serve both regional and international customers.

Levasil® colloidal silica, derived from sand and water, exhibits exceptional versatility for various end-markets. In electronics, it serves as a high-tech abrasive for shaping, smoothing, and polishing silicon, metals, and other precision substrate materials. In building and construction, it is used by admixture companies to enhance concrete durability and strength.

As a leading global producer of high-performance silica with more than 60 years of experience, Nouryon operates eight Levasil® production facilities worldwide. This expansion underscores Nouryon's commitment to meeting market demand and supporting customer growth, marking another milestone in its strategic growth initiatives.



Kromasil® chromatography media Honored at Tides China Conference – Celebrating Innovation and Dedication in Peptide Research

Nouryon's leading brand in industrial chromatographic media, Kromasil® chromatography media, was recognized with the 'Industry Ecosystem Award' for 26 years of commitment to the Chinese market at the 10th Tides China Conference in 2024.

The Nouryon team presented the latest Kromasil® chromatography media innovations at the conference, which were well received by the audience. Kromasil® chromatography media technical expertise ensures consistent product quality, making it suitable for large-scale pharmaceutical peptide production. Its silica gel features superior mechanical strength, chemical stability, and high loading capacity, reducing solvent consumption and supporting sustainable production practices. These innovations have reinforced Kromasil®'s leadership in the peptide industry. The event's success highlights Kromasil® chromatography media's ongoing dedication to advancing peptide research and production.





Eco-Solutions

Eco-Solutions are products and product line innovations that we plan to introduce in the future based on success. They emphasize key sustainability drivers such as whether product innovations in our R&D pipeline are biobased or biodegradable, as these are vital components of product sustainability in our end markets.

We continue to strive to reduce the overall environmental footprint throughout the entire life cycle of a product, including in our customers' applications. In this metric, when we consider environmental footprint performance, we focus on emissions, resource consumption, and toxicity. Product innovations are assessed by product safety and regulatory criteria. Eco-Solutions are not expected to be regulated in a way that restricts their intended application over the next five years.

In addition, Eco-Solutions either:

- have a sustainable feedstock index greater than 50%¹⁵
- are biodegradable¹⁶ or,
- bring a significant environmental footprint advancement¹⁷

If products meet more strict criteria, they may be considered circular¹⁸.

The scope of the Eco-Solutions metric includes all active New Product Introduction projects in stages 3 (creation), or 4 (scale-up and pre-launch), and excludes: Stages 1 (screening); 2 (feasibility); and 5 (launch and monitor).

Our 2024 Performance

In 2024, 74% of our R&D innovation pipeline included Eco-Solutions. Our product innovations include biobased, biodegradable, and circular solutions, including natural polymers in Home and Personal Care and cellulose-based raw materials in Paints and Coatings. Other innovations include our range of biodegradable and biobased products, such as chelating agents, surfactants, and polymers based on natural materials. Many of the products we offer are recognized in our industry for product safety and sustainable benefits, including by EU Ecolabel, Nordic Swan, COSMOS APPROVED, and US Environmental Protection Agency Safer Choice.

Our 2024 Performance

Nouryon launched Structure® Silk Starch for Personal Care Formulations, the latest addition to its Structure® portfolio of naturally derived rheology modifiers including Structure® M3 co-surfactant, Structure® XL starch, Structure® ZEA starch, Structure® 2001 polymer, Structure® 3001 polymer, and Structure® Solanace starch. Structure® Silk starch is a sustainable ingredient featuring an RCI greater than 90%, is readily biodegradable (per OECD 301B1), and is non-GMO. See our case study on [page 45](#) for more information.

Furthermore, Nouryon launched Structure® M3 co-surfactant, a new biodegradable personal care technology. This innovation enhances the functionality and appeal of personal care formulations, catering to increasing consumer preference for natural and milder ingredients. Read more about this innovative product launch in our case study on [page 45](#).

¹⁵ The sustainable feedstock index is calculated based on the content of the final Nouryon product and is an assessment of what share of the product is derived from either biobased organic materials, abundant inorganic materials and/or recycled materials.

¹⁶ The biodegradability criteria apply to all intentionally added components in the product and are applied only for solutions that will be used in applications that have been assessed to be relevant, such as home and personal care applications.

¹⁷ Sustainability advancement is the improved environmental impact of the solution as compared with the incumbent solutions along with full life cycle. The improvement must be significant, meaning greater than 10% when comparing the Nouryon product's cradle-to-grave impacts vs. the incumbent solution.

¹⁸ The circularity criteria are that products must have a sustainable feedstock index of 100% and will be either biodegradable or do not contain substances that inhibit the possibilities for recycling in their respective application.

Case study

Launch of Structure® Silk Starch for Personal Care Formulations

In 2024, Nouryon introduced Structure® Silk starch, the latest addition to its Structure® portfolio of naturally derived and sustainable rheology modifiers including Structure® M3 co-surfactant, Structure® XL starch, Structure® ZEA starch, Structure® 2001 polymer, Structure® 3001 polymer, and Structure® Solanace starch. Developed in response to market trends for innovative textures and unique sensory experiences, Structure® Silk starch delivers a luxurious, cushioned feel and bright luminosity for skin care, hair care, and hairstyling formulations.

Structure® Silk starch is a sustainable ingredient featuring an RCI greater than 90%, is readily biodegradable (per OECD 301B1), and is non-GMO. It is cold-water processable and compatible with a wide range of commonly used ingredients in hair and skin applications, offering unmatched versatility and sustainability benefits.



Case study

Raising Personal Care Standards with Structure® M3 Co-Surfactant

Nouryon launched Structure® M3 co-surfactant, a new biodegradable personal care technology, at the 2024 in-cosmetics global event in Paris, France. This innovation enhances the functionality and appeal of personal care formulations, catering to consumers' increasing preference for natural and milder ingredients.

Structure® M3 co-surfactant reduces the irritation potential of commonly used surfactant systems, offering an optimal balance of mildness, cleansing, and foaming in shampoo, facial cleanser, and body wash formulations. It is available as a waterless, free-flowing powder with high natural content and is readily biodegradable. It is also cold-water processable and compatible with both sulfate and sulfate-free surfactant systems.

Structure® M3 co-surfactant joins a series of natural products by Nouryon, including SolAmaze® Natural solution, Amaze® Nordic Barley, and Amaze® SP aesthetic modifier.



Product Stewardship

GRI 416 3-3, 416-1

At Nouryon, we understand our important role and contribution to society and sustainability goes beyond mere regulatory compliance and spans all regions of our operations. We are committed to managing our products responsibly throughout the entire supply chain – from raw materials to product disposal – while consistently reducing our impact on human health and the environment.

We create business value by offering safer alternatives and more sustainable solutions through our product stewardship programs. This aligns with our goal to develop and deliver Eco-Premium Solutions to our customers.

Our comprehensive product stewardship process consists of eight key elements (refer to table below) and is diligently

monitored at each stage. Our manufacturing sites are consistently evaluated through the Nouryon Assessment Tool.

For Nouryon, this entails:

- Supplying our customers with ample safety information about our products through safety data sheets (SDS).
- Implementing processes that ensure HSE aspects are integral to our new product development and design.
- A proactive program to manage priority substances ahead of legislation, including a global approach to reviewing and safely managing hazardous substances in our products and processes. This could result in phasing out and/or substituting substances in cases where safe use and handling cannot be guaranteed.

Nouryon utilizes a global monitoring system to stay informed of product-related regulatory developments, allowing us to

advocate for and implement activities promptly. We support initiatives such as the Clean Industrial Deal to facilitate the aims of the European Green Deal, European Deforestation Regulation, the European Union (EU) Chemical Strategy for Sustainability, and the US Toxic Substances Control Act legislation, among others. We contribute to the development of chemical management legislation worldwide through our membership in industry associations.

| Elements of Product Stewardship | | Responsibilities | |
|---|--|---|---------------------|
| | | Lead function | Support function |
| 1. Leadership | | Nouryon Leadership Team (NLT)/ Product Stewardship and Regulatory Affairs (PSRA) | NLT/PSRA |
| 2. Product design and development | | R&D | PSRA |
| 3. Product manufacture, distribution, use and disposal by customers | 3a – Product manufacture | ISC Manufacturing | PSRA |
| | 3b – Product distribution | ISC Logistics | PSRA |
| | 3c – Product use and disposal by customers | Marketing and Sales | PSRA |
| 4. Purchase of materials, equipment and services, including toll conversion | | ISC Procurement | PSRA |
| 5. Materials inventory and hazard data for substances in produced products | | PSRA | PSRA |
| 6. Product regulation and advocacy/hazard, exposure and risk assessment | 6a – Product regulation and advocacy | PSRA | Government Affairs |
| | 6b – Hazard, exposure and risk assessment | PSRA | HSE |
| 7. Consumer information/product liability | | Marketing and Sales | PSRA |
| 8. Business integrity and managing reputation-related issues | | NLT | Communications/PSRA |

Ensuring Safety for Our Customers and Their Products

Our commitment to safety extends beyond our products to include our customers and all stakeholders. In our QHSE&S Policy, we commit to advising our customers on the safe use and handling of our products. We provide comprehensive training on how to safely use and handle our products.

A standout feature of our Deventer Innovation Center is our premier Safety Testing Laboratory. Here, we rigorously test our products and processes for safety, not only in their use but also during transportation and handling. This state-of-the-art facility, combined with our expert-led training, ensures that our employees and customers are well-equipped to handle our products safely.

Hazard Assessment and Communication

We manage many distinct substances¹⁹, including raw materials used in our production and samples for research and development, and more than 2,900 unique products are distributed and utilized globally. In 2024, 81% of Nouryon's net revenue came from products containing substances that are classified as Globally Harmonized System (GHS) Categories 1 and 2 Health and Environmental Hazards.²⁰

Our expertise lies in handling intricate and hazardous chemical reactions and managing highly reactive chemicals. We ensure the safe use of all substances at our production sites and by our customers through meticulous management. Our Company-wide protocol ensures that every substance manufactured by or for Nouryon has undergone a hazard assessment. This assessment is based on data related to physical chemistry, toxicity, ecotoxicity, and environmental fate.

All information needed to create labels and safety data sheets (SDS) is stored in a centralized global database. We continually update this database with new regulatory information. The system generates labels and SDSs in accordance with each shipment's requirements, including the language and format specific to the destination country.

Nouryon is committed to avoiding vertebrate animal testing unless it is a legal requirement. We support the development of alternative testing methods that do not involve vertebrate animals and have implemented a policy to this effect. When vertebrate animal testing is mandated, we adhere to the '3Rs' principle: Replace, Reduce, and Refine animal testing.

Adherence to EU REACH Regulations

GRI 416 3-3

Nouryon is dedicated to ensuring the safe use of our products in compliance with EU REACH (Regulation (EC) No 1907/2006). This regulation aims to enhance the protection of human health and the environment from potential risks associated with chemicals. REACH, which stands for Registration, Evaluation, Authorization, and Restriction of Chemicals, outlines procedures for gathering and assessing information on the properties and hazards of substances.

As part of our compliance with REACH, we conduct chemical hazard, exposure, and risk assessments, and communicate safe usage through extended safety data sheets (e-SDS). We require new suppliers within the European Economic Area to provide e-SDS documentation (along with other necessary data). Our site and procurement teams collaborate in this process, with our PSRA teams providing advice on REACH aspects and conducting regulatory checks.

Nouryon is a member of the European Chemical Industry Council (CEFIC) REACH Action Plan for Review/Improvement of Registration Dossiers. We are also actively engaged in new chemical REACH-like regulations and are conducting registrations in Taiwan, South Korea (K-REACH), Turkey (KKDIK), and Great Britain (UK-REACH).

Responsibly Managing Substances of Concern

GRI 416-1

At Nouryon, we have established a Priority Substance program to proactively identify and manage substances that require special attention. This global program includes a risk assessment like the methodology used in EU-REACH to determine safe usage of these substances. Management measures may involve substitution, restriction to certain uses, or providing specific and mandatory handling instructions. See [page 48](#) for examples of substitutions due to the phasing out of hazardous substances. To further ensure product safety, we provide 24/7 year-round service to offer immediate advice in local languages in the unlikely event of an emergency. We also offer interactive online customer training in 12 languages, covering the latest safety practices for handling some of our products, including the thermoset, cross-linking, organic peroxides, metal alkyls, and Expancel® expandable microsphere products. This training covers hazardous properties, proper storage techniques, and safe use. More information about Nouryon's Safety Services can be found on our website.

¹⁹ This includes raw materials for our manufactured products, intermediates and R&D samples from innovation projects. This does not include products and materials purchased that are not directly employed in our manufacturing processes, e.g. lubricants or laboratory reagents.

²⁰ GHS Health Hazards include the following criteria: Acute toxicity, skin corrosion/irritation, serious eye damage/eye irritation, respiratory or skin sensitization, germ cell mutagenicity, carcinogenicity, reproductive toxicology, target organ systemic toxicity – single exposure, target organ systemic toxicity, or repeated exposure aspiration toxicity. GHS Environmental includes the criteria: Toxic to the aquatic environment (acute and chronic) and hazardous to the ozone layer.



Our 2024 Performance

In 2024, products containing more than 0.1% of a substance of very high concern (SVHC), accounted for 5.8% of Nouryon's net revenue. As mentioned, these substances of very high concern are meticulously managed to ensure their safe manufacture and use, with all undergoing a risk assessment in line with the REACH methodology. Further, the majority of the SVHC volume in Nouryon's products originates from substances used as reactive intermediates. Our customers use these as building blocks in chemical reactions to make final products, for example plastic materials.

Innovating Sustainable Alternatives: Examples of Product Substitution

Nouryon has a proven history of developing alternatives to substance of concern to meet the evolving needs of our customers and regulatory requirements. In recent years, we have introduced safer substitutes for previous products, for example Elfan® AT84 and Redicote® E-47 NPF. We have also introduced a safer alternative to Di-Cyclo Hexyl Phthalate (DCHP).

In the cleaning market, we introduced innovative products such as the chelating agent, Dissolvine® GL, and wetting agent AG 6206. Berol® 260 is part of Nouryon's low dioxane portfolio, which also includes degreasers and cleaners from the Berol® and Ethylan® surfactant product lines. These products are manufactured using a unique process that minimizes the amount of 1,4-dioxane produced as a by-product.

Not only does our innovative process lower environmental impact, but it also makes the formulation process more cost-effective for our customers. It offers the potential for optimizing raw material purchases, reducing inventories, and simplifying production. All products within our low-dioxane portfolio are listed in the CleanGredients database,

thereby meeting the US Environmental Protection Agency Safer Choice standard. These include:

- Berol® 226 SA: A synergistic surfactant blend that optimizes cleaning and ensures easy handling
- Berol® 260 and 266: High-performance degreasers
- Berol® 609 and 611: Surfactants free from nonyl-phenol ethoxylate
- Berol® DR-B1: An effective cleaner for outdoor use, qualified for direct release into the environment
- Ethylan® 1005: A low-foam, low-aquatic-toxicity primary surfactant degreaser

In 2024, Nouryon further introduced Triameen® Y12D, launched in 2023, an antimicrobial active for advanced disinfection for the US cleaning market. In 2024, Nouryon's Boxing site has successfully completed the first production of Triameen® YT, an alkyl triamine product. Triameen® YT is widely used as chain lubricants in the cleaning industry and in epoxy coatings in the paints and coatings industry. This successful production ensures the persistent supply of this high-quality product to valued customers globally and secures growth opportunities for the paints and coatings business in North America. Read more about this innovation on [page 49](#).

Launch of Triameen® YT at Nouryon's Boxing Site in China

In 2024, Nouryon's Boxing site has successfully completed the first production of Triameen® YT, an alkyl triamine product. Triameen® YT is widely used as chain lubes in the cleaning industry and as epoxy coatings in the paints and coatings industry. This successful production ensures the continued supply of this high-quality product to valued customers globally and secures growth opportunities for the paints and coatings business in North America.

At the end of 2022, the REACH registration of Triameen® YT in Europe was ceased due to unfavorable economics, resulting in the Stockvik site in Sweden – previously the only manufacturing site of the product at Nouryon – being no longer permitted to produce it. To address this challenge, lab trials and customer testing were initiated at the Boxing site in China in February 2023. Leveraging the rich experience with similar products and the synthesis lab capabilities at the Boxing site, Triameen® YT was successfully introduced with premium quality.

This milestone highlights Nouryon's strategic approach to ensuring supply reliability and supporting business growth in the global home and personal care and paints and coatings sectors, reinforcing our position as a leader in the specialty chemicals industry.



3.5 Environmental Data Sheet (1/3)^{21,22}

GRI 305, GRI 305-1, GRI 305-2, GRI 305-3, GRI 305-4, GRI 305-7

| | Unit | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Progress toward Target ²³ |
|--|--|-------|-------|-------|--------|--------|---------|--------------------------------------|
| Company Carbon Footprint | | | | | | | | |
| Total absolute direct and indirect emissions market-based (Scopes 1 and 2) | K Metric Tons CO ₂ e | 1,530 | 1,519 | 1,499 | 1,537 | 1,327 | 1,238 | -19% |
| Carbon intensity (Scopes 1 and 2 combined) | Kg CO ₂ e /Metric Ton of production | 415 | 424 | 404 | 421 | 394 | 347 | n/a |
| Direct absolute GHG emissions (Scope 1) ²⁴ | K Metric Tons CO ₂ e | 603 | 624 | 642 | 663 | 585 | 598 | n/a |
| Direct GHG emissions (Scope 1) intensity | Kg CO ₂ e /Metric Ton of production | 164 | 174 | 173 | 182 | 174 | 168 | n/a |
| Indirect GHG emissions market-based (Scope 2) ^{25,26} | K Metric Tons CO ₂ e | 927 | 895 | 857 | 874 | 742 | 640 | n/a |
| Indirect GHG emissions market-based (Scope 2) intensity | Kg CO ₂ e /Metric Ton of production | 251 | 250 | 231 | 239 | 220 | 179 | n/a |
| Indirect GHG emissions location-based (Scope 2) ²⁶ | K Metric Tons CO ₂ e | 1,276 | 1,197 | 1,201 | 1,255 | 1,252 | 1,156 | n/a |
| Calculated Scope 3 total absolute GHG emissions | K Metric Tons CO ₂ e | | | | | | 5,059 | n/a |
| Total absolute GHG emissions (Scope 1, Scope 2 market-based, and Scope 3) | K Metric Tons CO ₂ e | | | | | | 6,297 | n/a |
| Direct emissions, covered by emissions-limiting regulations | % of direct emissions | 22% | 24% | 25% | 26% | 24% | 24% | n/a |
| Biogenic CO ₂ emissions | K Metric Tons CO ₂ e | 1,347 | 1,561 | 1,604 | 1,723 | 1,643 | 2,204 | n/a |
| Energy Management | | | | | | | | |
| Total energy consumption ²⁷ | Mln GJ | 30.4 | 30.7 | 32.7 | 33.4 | 31.5 | 33.5 | n/a |
| Total energy consumption intensity ²⁷ | GJ/Metric Ton of production | 8.24 | 8.59 | 8.81 | 9.15 | 9.35 | 9.38 | n/a |
| Renewable energy consumed ²⁸ | % | 30% | 38% | 38% | 34% | 32% | 35% | n/a |
| Renewable electricity consumed | % | 36% | 48% | 49% | 39% | 42% | 48% | n/a |
| Energy from grid electricity | % | 61% | 61% | 60% | 59% | 61% | 61% | n/a |
| Energy consumption from unbundled RECs ²⁹ | MWh | | | | 40,311 | 59,554 | 835,988 | n/a |
| Carbon offsets purchased ³⁰ | Metric Tons CO ₂ e | | | | 200 | 127 | - | n/a |
| Total self-generated electricity | Mln GJ | - | - | - | - | - | - | n/a |

21 For all figures, minor corrections to historical data may be made to improve accuracy or based on methodology updates.

22 All metrics are calculated according to our [Reporting Principles 2024](#).

23 Percentage change 2019-2024.

24 Scopes 1 and 2 include process emissions from other GHG (CH₄, N₂O, and Hydrofluorocarbons) and their CO₂ equivalents.

25 Including RECs retired on our behalf for utility supplied renewable electricity and other contractual instruments from utilities and other partners.

26 Scope 2 market and location-based CO₂e emissions do not include emissions from CH₄ and N₂O where IEA national grid factors or AIB residual grid factors are applied, except for the US.

27 Energy consumption is expressed in mln GJ which is the sum of the actual consumed by the sites.

28 Renewable-energy data include renewable fuels such as biomass, purchased renewable steam, and renewable electricity from solar, wind, and hydropower.

29 RECs retired on our behalf for utility supplied renewable electricity and other contractual instruments from utilities and other partners.

30 Carbon offsets purchased to compensate for Scope 1 emissions in our carbon neutral sites. Offsets are not included in our emissions inventory (Scopes 1, 2, or 3). These offsets have been certified by the Verified Carbon Standard (VCS), administered by Verra, and retired. For more information, see www.terra.org. Offsets are applied to prior year emissions.

3.5 Environmental Data Sheet (2/3)

| | Unit | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Progress toward Target ³¹ |
|---|--|---------|---------|---------|---------|---------|---------|--------------------------------------|
| Air Quality | | | | | | | | |
| NOx absolute emissions ³² | Metric Tons | 1,080 | 1,066 | 1,154 | 1,159 | 983 | 1,079 | n/a |
| NOx emission intensity | Kg/Metric Ton of production | 0.29 | 0.30 | 0.31 | 0.32 | 0.29 | 0.30 | n/a |
| SOx absolute emissions | Metric Tons | 3,533 | 3,135 | 3,288 | 3,333 | 3,446 | 3,342 | n/a |
| SOx emission intensity | Kg/Metric Ton of production | 0.96 | 0.88 | 0.89 | 0.91 | 1.02 | 0.94 | n/a |
| VOC absolute emissions | Metric Tons | 669 | 1,172 | 1,938 | 1,792 | 1,853 | 1,717 | n/a |
| VOC absolute emission intensity | Kg/Metric Ton of production | 0.18 | 0.33 | 0.52 | 0.49 | 0.55 | 0.48 | n/a |
| Hazardous air pollutants | Metric Tons | | | 374 | 357 | 408 | 593 | n/a |
| Hazardous air pollutants intensity | Kg/Metric Ton of production | | | 0.10 | 0.10 | 0.12 | 0.17 | n/a |
| Emission to Water – Chemical Oxygen Demand (COD) | | | | | | | | |
| COD absolute emissions to surface water | Metric Tons | 845 | 768 | 896 | 854 | 836 | 1,442 | n/a |
| COD emission intensity to surface water | Kg/Metric Ton of production | 0.23 | 0.21 | 0.24 | 0.23 | 0.25 | 0.40 | n/a |
| COD absolute emissions to external wastewater treatment | Metric Tons | 15,257 | 16,515 | 17,917 | 18,447 | 15,380 | 14,172 | n/a |
| COD emission intensity to external wastewater treatment | Kg/Metric Ton of production | 4.13 | 4.60 | 4.81 | 5.04 | 4.56 | 3.97 | n/a |
| Water Management | | | | | | | | |
| Absolute freshwater intake | 1,000 m ³ | 134,868 | 147,270 | 161,652 | 153,407 | 151,543 | 157,192 | n/a |
| Freshwater intake intensity | m ³ /Metric Ton of production | 36.5 | 41.1 | 43.4 | 41.9 | 44.9 | 44.0 | n/a |
| Intake in regions with high water stress | % | 2.3% | 2.0% | 1.6% | 2.0% | 2.0% | 1.8% | n/a |
| Absolute freshwater consumption ³³ | 1,000 m ³ | 15,427 | 14,786 | 14,349 | 14,497 | 14,295 | 15,591 | n/a |
| Freshwater consumption ³³ intensity | m ³ /Metric Ton of production | 4.18 | 4.12 | 3.85 | 3.96 | 4.24 | 4.36 | 4% |
| Intake in regions with high water stress | % | 19% | 20% | 18% | 18% | 21% | 18% | n/a |
| Waste Management | | | | | | | | |
| Total absolute waste | Metric Tons | 62,587 | 59,449 | 63,243 | 68,959 | 56,393 | 56,986 | n/a |
| Total waste intensity | Kg/Metric Ton of production | 17.0 | 16.6 | 17.0 | 18.9 | 16.7 | 16.0 | -6% |
| Absolute non-hazardous waste | Metric Tons | 45,143 | 41,718 | 42,146 | 44,652 | 35,368 | 37,065 | n/a |
| Non-hazardous waste intensity | Kg/Metric Ton of production | 12.2 | 11.6 | 11.3 | 12.2 | 10.5 | 10.4 | n/a |
| Absolute hazardous waste | Metric Tons | 17,444 | 17,731 | 21,097 | 24,306 | 21,025 | 19,921 | n/a |
| Absolute hazardous waste to landfill | Metric Tons | 417 | 465 | 268 | 548 | 193 | 350 | n/a |
| Hazardous waste reused | % | 24% | 28% | 33% | 24% | 26% | 24% | n/a |

³¹ Percentage change 2019-2024.

³² NOx values have been updated based on updated emission factors for all years back to 2019.

³³ Total freshwater consumption (excluding once through cooling-water intake).

3.5 Environmental Data Sheet (3/3)

| | Unit | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Progress toward Target ³⁴ |
|--|---------------------------------|-------|-----------------|-----------------------|--------------------|-----------------------|-----------------------|--------------------------------------|
| Production | | | | | | | | |
| Nouryon | K Metric Tons | 3,691 | 3,587 | 3,725 | 3,658 | 3,375 | 3,573 | n/a |
| Sustainable Sourcing | | | | | | | | |
| Suppliers screened using Risk IQ ³⁵ | % of spend | | | 96% | 94% | 90% | 93% | n/a |
| Suppliers measured on EcoVadis performance ³⁶ | % of spend | | | 50% | 60% | 66% | 74% | n/a |
| Suppliers acknowledging our Business Partner Code of Conduct ³⁷ | % of spend | | | 98% | 99.7% | 99.8% | 99.2% | n/a |
| Biobased raw materials (portion of organic materials) | % mass of organic raw materials | 20% | 21% | 22% | 22% | 20% | 23% | n/a |
| Management Systems³⁸ | | | | | | | | |
| | | | Per April, 2021 | Per February 28, 2022 | Per March 23, 2023 | Per December 31, 2023 | Per December 31, 2024 | |
| Manufacturing sites with ISO-14001/RC-14001 certifications | % | | 77% | 84% | 98% | 95% | 94% | n/a |
| Manufacturing sites with ISO-9001 certifications | % | | | 88% | 88% | 82% | 83% | n/a |

³⁴ Percentage change 2019-2024.

³⁵ In terms of all external spend (product, non-product, energy, logistics, etc.) The Risk IQ tool considers industry segment risk, country risk and EcoVadis scores from the complete EcoVadis database.

³⁶ Based on policies, actions, results. For more information: <https://ecovadis.com/>.


³⁷ Tracked by acceptance of a Nouryon purchase order or a signed Nouryon contract.

³⁸ Our ISO certification percentage metric includes sites that have been in our portfolio for one year. This is to allow sufficient time required for activities reviewed by the certification process (e.g., pre-start up safety reviews, management reviews, production, and/or internal audits if relevant). Any exceptions will be identified.

4. Our Social Engagement



- 4.1 Engaging and Partnering with Employees, Suppliers, and Society
- 4.2 Health and Safety of Own Workforce
- 4.3 Engaging Our Communities
- 4.4 Human Resources – Attracting, Developing, and Retaining Talent
- 4.5 Culture of Excellence and Belonging

 Click on the tile to go to the corresponding section.

Relevant Policies and Programs

- [Code of Business Conduct & Ethics, including anti-discrimination and anti-harassment](#)
- Anti-corruption, anti-bribery
- [Business Partner Code of Conduct, including suppliers](#)
- [Quality, Health, Safety, Environment and Security Policy](#)
- [Sourcing Sustainable Palm Oil](#)
- Sensitive Country Policy
- Sustainable Sourcing Statement
- Life-Saving Rules (LSR) for all employees and contractors
- Safety training for all employees and contractors, including Frontline Leader Safety training
- Behavior-Based Safety (BBS) program
- Process Safety Management (PSM)
- Annual Safety Day
- Occupational health and safety management systems at our sites



4.1 Engaging and Partnering with Employees, Suppliers, and Society

GRI 2-29

At Nouryon, we are committed to fostering a safe and dynamic high-performance work culture that celebrates the diverse experiences, perspectives, and potential of our global workforce. Our dedication to employee development is unwavering, as we provide the necessary tools for career progression and leadership growth through tailored learning opportunities, all while ensuring alignment with our Company's values.

We believe in nurturing a culture in which diverse viewpoints are not only welcomed but also harnessed to drive business excellence. This focused approach is key to achieving our strategic goals, such as fostering innovation and attracting and retaining top talent.

Our global and local partnerships with learning institutions and universities enable us to offer internships, thesis projects, research collaborations, and development opportunities for our employees.

We also collaborate closely with our suppliers to ensure they advance in sustainability alongside Nouryon and our customers.

Our commitment to community engagement is reflected in our Corporate Social Responsibility (CSR) framework, which combines volunteerism, corporate donations, and active participation in community initiatives, instilling pride and camaraderie in our workforce.

4.2 Health and Safety of Own Workforce

Nouryon's values and commitment to ethical conduct are integral to our operations and culture. As a responsible operator and reliable supplier, safety is our highest priority. Our objective is to maintain responsible operations by continuously improving our performance in people safety, process safety, and product safety.

Our values are:

- 1. We Aim High:** Nouryon encourages a culture of ambition and high-performance, setting elevated standards and striving to exceed them.
- 2. We Own It:** Our employees are encouraged to take responsibility for their work, being accountable for their actions and decisions
- 3. We Do It Right:** This value underscores the importance of integrity and ethical behavior, ensuring we do the right thing, even when no one is watching

Our values and focus on safety are embodied in Nouryon's Code of Business Conduct & Ethics, which outlines our Company's guiding ethical principles. Every employee is expected to understand and comply with these principles, as well as all relevant policies and laws. Contractors, depending on their role and the service they are providing, are expected to adhere to Nouryon's Code of Conduct and/or Business Code of Conduct.

We foster a high-performance culture that emphasizes accountability, integrity, and ethical business practices. We continuously scrutinize our internal practices through both internal and external assessments and have procedures in place to take corrective action when conduct does not meet our high standards.

Continually Improving Our People and Process Safety

GRI 403-3

Our value, 'We Do It Right' is the cornerstone of a robust safety culture that safeguards our employees, contractors, customers, communities, and the environment. By prioritizing safety, we not only avoid injuries but also enhance overall productivity, foster trust, and build a resilient organization. Our relentless pursuit of zero injuries and harm drives us to set ambitious internal targets and implement a comprehensive safety management program. This program is designed to deliver tangible benefits and includes a variety of initiatives, such as Life-Saving Rules (LSRs), Risk of the Quarter, and thorough incident investigation and reporting processes, among others.

We are steadfast in our commitment to further enhancing our safety performance. By focusing on leading indicators,

emphasizing hazard recognition, and enhancing incident learning, we are proactively addressing potential safety issues and paving the way for a safer, more secure workplace. These initiatives not only prevent injuries but also cultivate a culture of vigilance and responsibility, leading to a more engaged and motivated workforce. The ripple effect of our safety commitment extends beyond our organization, fostering stronger relationships with our stakeholders and reinforcing our reputation as a responsible and ethical leader in our industry.

Creating a Secure Work Environment

Nouryon has outlined nine basic LSRs that apply to everyone and are supported by the Golden Principle – stop work if conditions or behaviors are unsafe. The aim of LSRs is to create a secure work environment and promote safe

practices among our employees, contractors, and visitors. Every employee and contractor receives training on these rules during their onboarding process and through regular refresher sessions. In 2024, we introduced a new rule about always using prescribed personal protective equipment (PPE), which spotlights the importance of PPE in preventing injuries and saving lives. We constantly encourage our employees to embrace our LSRs, especially our Golden Principle, which exists to nurture an environment where everyone feels empowered to speak up and act – and to stop work if they feel something is unsafe.

Our Life-Saving Rules

The purpose of our LSRs is to ensure a safe work environment and safe behavior among our employees, contractors, and visitors. Each employee and contractor is trained on these rules as part of their Company onboarding and on a regular basis thereafter. These rules are continually communicated throughout our organization.



Golden Principle:

Stop work if conditions or behaviors are unsafe



Work with a valid work permit when required



Make sure moving machinery is guarded



Obey traffic rules and regulations



Use fall protection when working at height



Ensure that all equipment is properly locked out before work begins



Do not work under the influence of alcohol or drugs



Obtain a permit for entry into a confined space



Obtain authorization before disabling safety equipment



Always use prescribed personal protective equipment (PPE)

People Safety

GRI 2-25, 403-3, 403 3-3, 403-1, 403-2, 403-4, 403-5, 403-9, and 403-10

At Nouryon, safety is not just a priority; it's a core value that permeates every level of our organization. Our rigorous accident prevention policies, including our comprehensive QHSE&S procedures and LSRs, are supported by robust management systems that drive relentless improvement. We elevate safety awareness and reinforce our culture by actively monitoring and reporting internally on critical parameters such as:

- **Near Misses:** Events that, while not resulting in immediate impact, had the potential to cause injury, ill health, or damage to assets or the environment
- **Hazards:** Any conditions or situations that pose a potential threat to people, products, or the environment

By focusing on these key indicators, we ensure that safety remains at the forefront of our operations, significantly reducing risks and enhancing overall safety performance. Our rigorous site audits ensure strict compliance with both regulatory and internal standards. We conduct regular safety training and emergency drills at every site, documenting outcomes and lessons learned to drive continuous improvement.

We develop health, safety and environment (HSE) alerts for all significant events, detailing root causes and key learnings. Our regional HSE managers hold regular calls to review these events with Integrated Supply Chain (ISC) leadership and HSE teams, ensuring a unified approach to safety. We treat all workers, whether permanent or temporary, with the same level of commitment to occupational health and safety.

Our Behavior-based Safety (BBS) program is implemented across all locations, targeting unsafe behaviors and providing targeted safety training to frontline leaders. This program drives behavioral change among employees and contractors, minimizing potential hazards. Regular observations and feedback are integral to the program,

fostering continuous improvement. Our Corporate Compliance Audits include regular audits of BBS programs, with each site audited every three years to assess effectiveness. Sites must also internally audit their BBS program annually.

Every recordable injury, as well as major incidents, are diligently investigated to identify root causes and implement corrective actions, preventing future incidents. We conduct comprehensive risk assessments and implement mitigation strategies to prevent injuries. Our procedures follow a hierarchy of controls to address potential hazards proactively.

Chemical hazards are systematically identified at each site, with mandatory maintenance of chemical lists and safety data sheets (SDS).

Our corporate compliance audits for QHSE&S, including process safety, follow a three-year cycle at our production sites. For sites with ISO 14001 and 9001 certifications, our corporate audits encompass these and other standards, including regulatory requirements such as OSHA PSM (US) and Seveso III (EU), Nouryon HSE Procedures, ISO 9001, 14001, 45001, and RC 14001. These rigorous audits ensure our operations meet the highest safety and environmental standards, driving exceptional safety performance and operational excellence.



Celebrating Nouryon Global Safety Day 2024 – Revitalizing, Recommitting, and Reinforcing Our Life-Saving Rules

On September 18, 2024, Nouryon sites worldwide came together to celebrate Safety Day, emphasizing our commitment to the safety and well-being of every team member. This year's Safety Day focused on reinforcing the critical importance of Nouryon's Life-Saving Rules (LSR), vital for ensuring the safety of our employees and contractors.

As part of our efforts to Revitalize, Recommit, and Reinforce, we also enhanced Nouryon's LSRs in 2024, to make them clearer and more comprehensive. This included the introduction of a new rule about always using prescribed PPE, which spotlights its importance in preventing injuries and saving lives.

Leading up to Safety Day, teams organized creative activities to bring the event to life and engaged in discussions on Viva Engage, sharing insights on the Golden Rule, the new PPE rule, and ways in which they are #LivingOurRules.

Highlights from some of our sites:

- **Green Bay (Expancel®) and Howard (Silica), US:** Team members created interactive activities for each LSR, including hazard recognition games and quizzes. Employees received a fire blanket and safety-related prizes.
- **Chicago, US:** The Safety Day Town Hall featured the popular annual Kahoot! game, reinforcing team knowledge of the rules in an interactive way.
- **Poznań, Poland:** The day included a meeting led by the site director, a presentation on updated LSRs with a focus on the new PPE rule, and a practical

first aid class.

- **Wrocław, Poland:** The site began with department discussions about the LSRs, followed by a town hall during which the site manager handed out LSR-branded gift bags. The highlight was the sharing of safety insights, raising the bar on safety culture.
- **Latin American sites:** Employees and contractors enjoyed a special breakfast and participated in a town hall showcasing the rules in action. Specially designed T-shirts were worn by everyone for the occasion.
- **Asia sites:** Teams created videos spotlighting how they are #LivingOurRules with their initiatives and collaborative efforts.

These activities emphasized our global team's dedication to fostering a proactive safety culture, demonstrating how team members not only know the critical rules but live them every day.



Celebrating 53rd National Safety Week in India

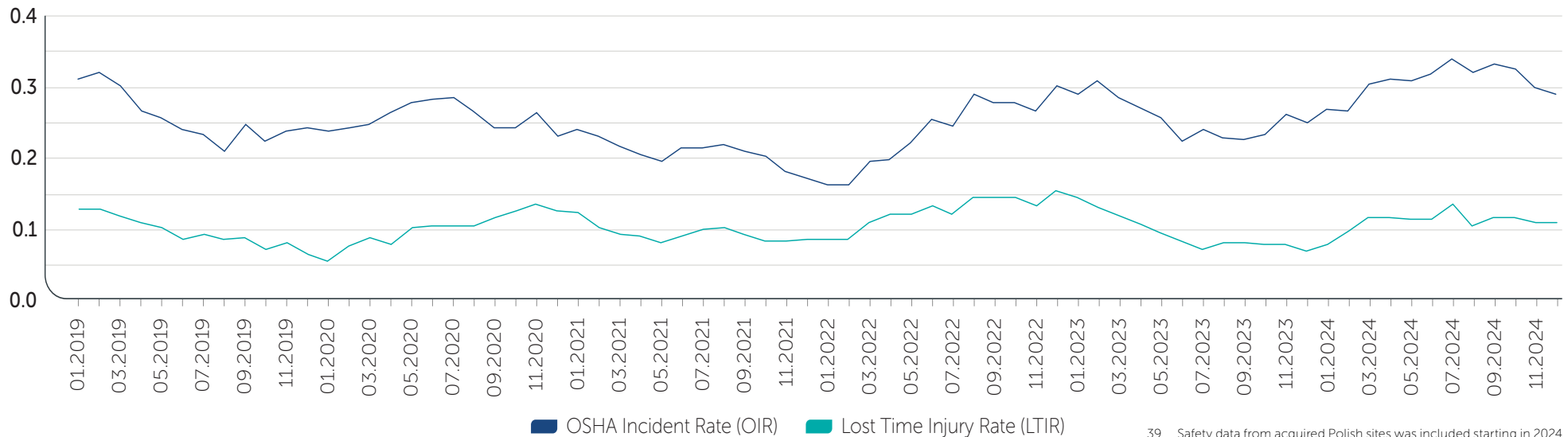
The 53rd National Safety Week, held from March 4-10, 2024, was commemorated at Nouryon's Mahad site in India, with a series of activities resonating with the theme, 'Safety Leadership for Excellence in Sustainability.' This annual observance underscores Nouryon's commitment to elevating awareness about the importance of safety in daily life and work environments.

Amid these activities, the Mahad site also celebrated significant milestones:

- **2023 HSE Excellence Site Award:** Recognized by the Asia HSE team.
- **Safety Star Award:** Conferred to Milind Jaitpal, one of our #Changemakers.
- **14th Consecutive Injury-Free Year:** Achieved in 2024, reflecting our commitment to workplace safety and manufacturing excellence.



Safety Statistics: Employees, Temporary Workers, and Contractors³⁹



³⁹ Safety data from acquired Polish sites was included starting in 2024.

Regular Safety Training

GRI 403-5

At Nouryon, we go beyond initial onboarding to provide ongoing health and safety training. Here's how we ensure a safe working environment:

Training on Specific Health Hazards

- Management and production-related employees receive specialized training on health hazards such as dust, noise, ergonomics, chemical safety, and health risk assessments.

Site Manager Training Requirements

- Site managers must complete HSE Leadership and Process Safety Fundamentals training.
- Annual safety drills are mandatory.

Life-Critical Procedures (LCPs) and Key Hazards Management

- Each site implements mandatory LCPs to manage key hazards and reinforce LSRs.
- Additional procedures cover maintenance, inspection plans, machine guarding, electrical safety, and lifting.
- Employees and contractors exposed to LCP-related risks receive site-specific training, including competence testing and refresher courses.

Change Management Training

- Specific training is required for formal management of changes when assets are modified.

Mandatory and Online Safety Courses

- Online safety courses are available to all employees via our learning platform.
- Comprehensive training programs equip employees

with the knowledge and skills needed for a safe working environment.

Crisis Communications Training

- Every three years, Crisis Communications (Media) Training is conducted for appointed spokespersons, with 84 employees trained in 2024.

Hazard Recognition Tools and Training Council

- Tools such as the Health, Safety, Environment, and Security (HSE&S) Good Practices tool enhance hazard recognition capabilities.
- A Training Council, established in 2022, sets global safety fundamentals and updates training with relevant topics, continuing through 2024.

Incidents

At Nouryon, safety incidents undergo a rigorous investigation to identify root causes and implement effective corrective actions. We leverage an internal platform dedicated to learning from these incidents, enhancing hazard awareness and reducing risk tolerance across all our sites.

Our global HSE organization reviews incidents weekly, while the ISC organization, including site leadership and the ISC leadership team, conducts monthly reviews. These sessions delve into incident details, analyze root causes, and foster discussions to raise awareness and share best practices, aiming to prevent recurrences.

The insights gained from these reviews enable each site to evaluate incidents and their root causes, and to implement targeted action items that address similar scenarios. This collaborative approach not only strengthens our commitment to safety but also drives continuous improvement in both people and process safety across Nouryon.

Case study

Recognition for Outstanding Environmental and Safety Achievements in Texas, US

In 2024, Nouryon was honored with the following 14 prestigious awards from the Texas Chemical Council (TCC) and the Texas Chemistry Alliance (TCA) for its exceptional achievements in safety performance, community engagement, environmental stewardship, and industry leadership in 2023:

- Caring for Texas Award was presented to our Fort Worth and La Porte sites for ongoing improvements in community involvement, emergency response, and sustainability.
- Excellence in Caring for Texas Award was given to our Houston site for an outstanding performance in the Caring for Texas program.
- Sustained Excellence in Caring for Texas Award was received by our Pasadena site for consistently receiving the Excellence in Caring for Texas award for the last three years.
- Zero Incident Award was given to our Fort Worth, Houston, La Porte and Pasadena sites for: Zero OSHA recordable injuries or illnesses for employees and contractors in 2023.
- Occupational Safety Distinguished Service Award was presented to our Fort Worth, Houston and Pasadena sites for successfully reducing their injury and illness incident rate in 2023, compared to the previous three years.
- Sam Mannan Award for Zero Process Safety Incidents was received by our Fort Worth and Houston sites for achieving zero Tier 1 or Tier 2 process safety incidents in 2023, named in honor of Dr. Sam Mannan.
- Texas A&M Mary Kay O'Connor Process Safety Center Award for Distinguished Process Safety Initiative was given to our Fort Worth site for achieving zero incidents in 2023, and demonstrating exemplary process safety initiatives.



Nouryon honored with Responsible Care® awards from the American Chemistry Council

Nouryon, a global leader in specialty chemicals, has been honored with multiple [Responsible Care® awards](#) from the American Chemistry Council (ACC), recognizing their commitment to safety and excellence. Paul Phillips, Regional Process Safety Management Manager for the Americas, received the ACC Member Company Responsible Care® Employee of the Year Award for his contributions to improving process safety and technical competencies. In addition to Paul's individual recognition, several Nouryon facilities in the US have been awarded ACC Facility Safety Awards for their exceptional safety performance in 2024:

- **Certificate of Excellence:** The sites in Battleground, Fort Worth, Houston, and Pasadena, TX; Chattanooga, TN; Howard and Green Bay, WI; Lima, OH; Morris, IL; Moses Lake, WA; and Salisbury, NC were acknowledged for achieving zero days away from work cases, and zero job transfer or restriction cases among both employees and contractors.
- **Certificate of Honor:** Augusta, GA, was recognized for achieving zero days away from work cases and zero job transfer or restriction cases among employees.

These awards highlight Nouryon's dedication to maintaining high safety standards and fostering a sustainable working environment. Responsible Care® is a voluntary initiative by the global chemical industry, led by the ACC in the US, to promote continuous improvement in safe chemicals management, contributing to safety and sustainability in the industry for over 35 years.



Process Safety

At Nouryon, we relentlessly pursue excellence in HSE&S. Since establishing our Process Safety Management (PSM) program in 2015, we have aligned with regulatory requirements, industry standards, and best practices to prevent incidents and protect our facilities and people. Our PSM framework integrates management systems and controls at our manufacturing sites to ensure hazards are thoroughly assessed, understood, and managed.

In 2024, we continued our focus on raising awareness and improving the reporting of process safety indicators. As our process safety performance has advanced, we have shifted our emphasis to leading indicators, reviewing all incidents and near misses on a weekly basis to proactively address potential risks.



Our 2024 Performance

In 2024, Nouryon's strong safety performance continued to garner recognition from external organizations globally. Among the accolades were 14 prestigious awards from the TCC and the TCA – please refer to [page 59](#) for details. We take immense pride in our Texas teams for their continued commitment to meeting and often surpassing safety and environmental standards.

We are consistently focused on strategic initiatives to manage safety. Our process safety incident rate stayed consistent with last year and has decreased by 78% compared to 2019. Our people safety performance continues to rank in the top quartile according to the most recent American Chemistry Council benchmark data. Our OIR increased with 16% compared to last year and has increased by 13% versus 2019.

Our Global Central Engineering Center of Excellence plays a pivotal role in maintaining process safety and overall safety across Nouryon's global operations. This center, staffed by a dedicated team of engineering and environmental experts, oversees:

- Rotating Equipment: Pumps and compressors
- Fixed Equipment: Pressurized and relief vessels
- Instruments and Electrical Components
- Turnarounds

Our experts in maintenance, reliability, and environmental technology are responsible for establishing and upholding global engineering standards, ensuring consistency and alignment across the Company. This enhanced equipment integrity drives greater efficiency, reliability, and consistency, ultimately leading to improved safety and increased profitability.

Each year, we host an annual Company-wide Safety Day to increase employee awareness and strengthen our global safety culture. As part of our efforts in 2024 to Revitalize, Recommit, and Reinforce, we also enhanced Nouryon's

LSRs to make them clearer and more comprehensive. This included the introduction of a new rule about always using prescribed PPE, which spotlights its importance in preventing injuries and saving lives. Detailed information is previously provided on [page 55](#). Additionally, national safety celebrations are held locally to raise awareness among employees and contractors, which are described in the case study on [page 57](#).

Continuously Improving Our Transportation Safety

We remain vigilant in monitoring our logistics operations to minimize environmental impact and ensure safety. Transportation, along with handling and storage, continue to be our key focus areas. Our Global Logistics team performs comprehensive gap analyses in our warehouses, terminals, and depots, as well as in our processes and associated technologies. This thorough evaluation has led to increased investment in resources and IT, driving the continuous improvement of our transportation strategy and boosting safety performance in this critical area.

In 2024, Nouryon was honored with the prestigious Grand Slam Award from the Association of American Railroads (AAR) for excellence in rail transportation safety in 2023. Read more in our case study on [page 62](#).

| | Unit | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Absolute Change 2023-2024 |
|---|-------------------------------------|------|------|------|------|------|------|---------------------------------|
| People Safety⁴⁰ | | | | | | | | |
| Total OSHA incident rate (OIR) for employees, temporary workers and contractors | Per 200,000 hours worked | 0.26 | 0.23 | 0.17 | 0.30 | 0.25 | 0.29 | 0.04 |
| Lost time injury rate (LTIR) for employees, temporary workers and contractors | Per 200,000 hours worked | 0.07 | 0.13 | 0.09 | 0.16 | 0.07 | 0.10 | 0.03 |
| Total OSHA incident rate (OIR) for employees, temporary workers | Per 200,000 hours worked | 0.23 | 0.27 | 0.21 | 0.31 | 0.28 | 0.28 | 0.00 |
| Total OSHA incident rate (OIR) for contractors | Per 200,000 hours worked | 0.33 | 0.13 | 0.05 | 0.29 | 0.19 | 0.35 | 0.16 |
| Lost time injury rate (LTIR) for employees, temporary workers | Per 200,000 hours worked | 0.04 | 0.17 | 0.11 | 0.17 | 0.10 | 0.10 | 0.00 |
| Lost time injury rate (LTIR) for contractors | Per 200,000 hours worked | 0.16 | 0 | 0 | 0.12 | 0 | 0.13 | 0.13 |
| Number of transport incidents ⁴¹ | # of incidents | | | | 20 | 7 | 20 | 13 |
| Lost time injury severity rate for direct workforce ⁴² | Per 200,000 hours worked | | | | 8.25 | 1.76 | 1.81 | 0.05 |
| Process Safety | | | | | | | | |
| Process Safety Incident Count (PSIC) | # of incidents PSE1 | 20 | 4 | 5 | 3 | 7 | 4 | -3 |
| | # of incidents PSE2 | 40 | 20 | 13 | 11 | 6 | 9 | 3 |
| | # of incidents combined (PSE1+PSE2) | 60 | 24 | 18 | 14 | 13 | 13 | 0 |
| Process Safety Total Incident Rate (PSTIR) PSE1 + PSE2 | Per 200,000 hours worked | 0.59 | 0.25 | 0.20 | 0.16 | 0.13 | 0.13 | 0.00 |
| Process Safety Total Incident Rate (PSTIR) PSE1 | Per 200,000 hours worked | 0.20 | 0.04 | 0.05 | 0.03 | 0.07 | 0.04 | -0.03 |
| Process Safety Incident Severity Rate (PSISR) | Per 200,000 hours worked | 0.20 | 0.04 | 0.09 | 0.08 | 0.16 | 0.06 | -0.10 |

⁴⁰ According to the [Reporting Principles](#), Nouryon can deviate from the OSHA guidance. Nouryon has excluded one incident in Poland that deviates from the OSHA LTI classification, following further assessment with site management, ISC, and HSE staff.

⁴¹ Reporting started in Q3 of 2021. The partial year results in 2021 were six.

⁴² Based on number of days lost due to injuries x 1,000 / total hours worked.

Case study

Excellence in Rail Transportation Safety – Nouryon's Grand Slam Award

In 2024, Nouryon was honored with the prestigious Grand Slam Award from the Association of American Railroads (AAR) for excellence in rail transportation safety in 2023. This recognition marks the second consecutive year that Nouryon has received this esteemed award, underscoring our relentless commitment to safety and environmental responsibility.

The AAR Grand Slam Award is presented annually to companies recognized by at least four Class 1 railroads for outstanding safe shipping practices. In 2023, Nouryon achieved this distinction through recognition from Union Pacific, Norfolk Southern, Canadian National, and Canadian Pacific Kansas City Railroads.



4.3 Engaging Our Communities

At Nouryon, our CSR framework is built on the pillars of volunteerism, active engagement, and corporate philanthropy, all designed to drive meaningful change in the communities we serve. Our global presence allows us to connect with diverse groups and forge impactful partnerships with organizations that share our values and commitment to drive positive impact.

We actively encourage our employees to participate in volunteer activities, providing them with opportunities to contribute their time and skills to various community projects. Additionally, our corporate philanthropy efforts focus on supporting initiatives that address critical social issues, such as education, healthcare, and environmental sustainability. By working together with our partners, we aim to create a better future for all.

Our 2024 Performance

In 2023, we introduced Nouryon Cares, a dynamic initiative that underscores our commitment to ourselves, our colleagues, and our communities. Building on this momentum in 2024, Nouryon Cares continued to focus on community initiatives in science, technology, engineering, and mathematics (STEM) education, sustainability and environmental stewardship, safety and health, and fostering an innovative culture of responsible citizenship and global business collaborations. Our global locations have demonstrated remarkable volunteerism and philanthropy, showcasing our dedication to making a positive impact. Here are some examples of our efforts:

Supporting STEM Education:

- Infrastructure development of a local rural school, India: Our Mahad site team in India supported Jijamata Madhyamik Vidyalaya, Raigad, by renovating the girls' washroom to improve hygiene, providing an e-learning kit and curriculum book bank to facilitate education, and

establishing a bicycle bank to facilitate accessibility from remote locations, benefiting about 385 students. Read more on [page 67](#).

- Our Mumbai team supported Gyan Vikas Hindi & English Medium School in Digha, Navi Mumbai, India, by renovating toilets, improving classroom ventilation, constructing new classrooms, fixing seepage and flooring issues, repairing windows and ceilings, providing tables and benches, and plastering and painting, improving the learning environment for about 900 students.
- Partnering with Pardada Pardadi Educational Society (PPES), India: In 2024, Nouryon India launched a women empowerment initiative by collaborating with PPES, an organization based in New Delhi. This partnership supports 25 underprivileged girls from rural areas of Anupshahr, Uttar Pradesh, in their pursuit of higher education, including degrees in IT, Mechatronics, and Science.
- Fill The Bus Program, US: Battleground, TX site employees contributed to the La Porte School District's Fill The Bus school supply drive, a collective initiative by the Local Emergency Planning Commission. Donated supplies were packed into backpacks and distributed to students for the upcoming school year. The Pasadena, TX site has also supported the program since its inception in 2018.
- Kids In Need Foundation, US: Our Bridgewater, Chicago, Houston, and Radnor offices teamed up with the Kids in Need Foundation to distribute backpacks filled with essential school supplies to local children. Nouryon leadership team members, including Larry Ryan and Sean Lannon, helped launch the event and modeled the backpacks along with several employee volunteers. Since 2021, Nouryon has partnered with the foundation to support effective teaching and learning in under-resourced schools.
- Salute to Education with Deer Park School District, US: Our Battleground, TX site employees volunteered with the Deer Park Local Emergency Planning Committee to support the Deer Park school district's Salute to Education, recognizing the hard work of local teachers and staff.





Community Service Initiatives:

- Open-to-Public (OTP) programs, China: In the summer of 2024, Nouryon focused on community care activities across its China manufacturing sites, including visiting senior homes and conducting cleaning drives.
- Vatsalya Trust Balikashram project, India: We continued supporting this orphanage, which provides shelter, nutrition, medical assistance, education, and developmental aid to about 50 underprivileged girls ages 6 to 18. Nouryon employees frequently volunteered their time to interact and engage with these children, including participation in their silver jubilee celebration. In a special event on March 8, 2024, to commemorate International Women's Day, we invited the children of this Balikashram to our Mumbai office to give them a flavor of corporate life and hear their personal aspirations.
- Supporting Sunshine School for differently abled, India: Our Mumbai team sponsored a dedicated school bus with customized facilities for the Sunshine School in Vashi, catering to the needs of 100 differently abled students, enhancing accessibility, safety and reducing school dropout rates. Read more on [page 67](#).
- Tailoring course for women, India: Our Mahad site team has sponsored tailoring course for 30 rural women in remote villages of Mahad that will help them in gaining employment and vocational training.
- Flags for the Fallen, US: Our Houston and Pasadena site employees teamed up with the Organization Flags for Fallen Vets to host their first annual event at the Houston Veteran Cemetery, honoring veterans by placing flags at their final resting places.
- Nouryon All-Pro Teacher Campaign, US: Nouryon continued this annual celebration of honoring local teachers for their commitment to students, schools, and communities. Each of the 10 teachers received a donation from Nouryon, tickets to an Eagles football game, and recognition throughout the community. We also organized one All-Pro Teacher class in June 2024 in Bridgewater, IL, where one of the All-Pro Teacher's brought her AP Chemistry class to our Bridgewater

Innovation Center to learn about careers and chemistry in everyday products.

- Texans Season Premiere Charity Event, US: Nouryon guests attended this charity event in August 2024 benefitting the Houston Texans Charities.

Sanitation Drives:

- Adopt-a-Beach cleanup event, US: Our Chicago office employees volunteered for this event with the Alliance for the Great Lakes, collecting 16 bags of trash, totaling 56 pounds of litter. Similarly, our Battleground site employees participated in this drive partnering with the Galveston Bay Foundation. The program, which began in 1986, has transformed into an annual event with thousands of volunteers across the Texas coast cleaning beaches and shorelines.

Health and Safety Initiatives:

- Donating medical equipment at a primary health center, India: Our Mahad site team donated medical equipment to a rural hospital in a remote village in Mahad, benefiting over 2,000 local residents.
- Supporting local Singaporean nursing home: Singapore site employees supported Man Fut Tong Nursing Home by donating essential nutritional items such as adult milk and drink powder, and wholegrain instant cereal.
- Cooking meals for families in need, Sweden: Our Gothenburg team continued their annual tradition of cooking meals for families at the Ronald McDonald House, using ingredients donated by Nordic Business Center employees, to support families with seriously ill children undergoing long-term hospital treatment. Read more on [page 66](#).
- Easter Solidarity Campaign, Brazil: Imperatriz site employees organized an Easter event at Creche Escola Vida for about 130 children, promoting oral hygiene and distributing chocolates. Two professional dentists gave a presentation to the children. In a separate event, Jupia site employees donated about 125 boxes of chocolates to needy children participating in the Boa Esperança Project in Três Lagoas/MS.

- Children's Day celebration, Brazil: Imperatriz site employees gifted toys, diapers, and oral hygiene kits to children at the Municipal Children's Hospital of Imperatriz, Maranhão. Nouryon Bahia employees held a social action in Barrolândia, donating toys, popcorn, and balloons to two daycare centers housing 275 children.
- Christmas Solidarity Campaign, Brazil: Imperatriz site employees organized toy distributions and recreational activities for approximately 84 children at Santo Amaro Municipal School in São José da Matança. Jundiaí site employees volunteered at Casa Transitória de Jundiaí, housing 22 children in vulnerable situations, and provided gifts including shoes, clothes, and toys. Additionally, they donated milk and personal hygiene items for the home. In an act of solidarity, the Jundiaí site employees also delivered panettones (Christmas cakes) to the service providers of the site. Itupeva site employees supported 25 children and teens from Casa de Nazaré by donating clothes and shoes.
- Donation to local food bank, US: During Thanksgiving, our Battleground, TX site employees donated food to a local food bank for the holiday season. Several groups of volunteers from the Houston Hub helped pack donations for the Houston Food Bank throughout 2024. In addition to supporting the organization's Senior Box Program, which helps provides Houston area low-income seniors with monthly food boxes, to support their health, nutrition and well-being, Nouryon volunteers contributed to the food bank's mission throughout the year by supporting its daily operations.
- Child Protective Services (CPS) Program, US: Houston, TX employees organized a new coat and jacket drive for children and teens in a CPS Program, known as BEAR (Be A Resource for CPS kids), donating more than 30 coats for the second consecutive year.
- Volunteering at local special needs fishing rodeo, US: Columbus, MS site employees and family members partnered with Golden Triangle Outdoors to volunteer at their 25th Annual Catfish Round-Up, an event for special needs adults and students across the county to safely participate in a day of fishing at no expense to

them or their families. The fish caught were cleaned and prepared for the students to taste, with the remaining donated to the local food bank.

- 9/11 Meal Pack Day, US: Nouryon leaders and employees helped assemble more than 600,000 meals in the Philadelphia area as part of 9/11 Day, the largest day of service in America, officially recognized under federal law. More than 30 million Americans participate each 9/11 to help others in need, rekindling the spirit of unity following the 9/11 tragedy.
- Community partnership with the Philadelphia Eagles, US: The Eagles Autism Challenge (EAC) is the annual fundraiser for the Eagles Autism Foundation (EAF), in which Nouryon employees come together to raise awareness and funds for the EAC. We continued with this event in May 2024 and the Nouryon team also participated in the EAC walk/run/ride event that brings the community together with the Philadelphia Eagles football team. In June 2024, members of our leadership team also participated in the Eagles Business League Bike Build campaign to help build bikes for local school-age children in disadvantaged neighborhoods.

Nouryon remains dedicated to nurturing robust relationships with the local communities in which we operate. We place a strong emphasis on education, scientific promotion, environmental conservation, healthcare, and sanitation. Our commitment is further demonstrated by encouraging our employees to engage in volunteer activities that address societal needs. This approach reflects our holistic commitment to community development and ecological sustainability.

Case study

Our Partnership with the Philadelphia Eagles

Our partnership with the Philadelphia Eagles continued to exemplify our CSR approach in 2024. This collaboration includes philanthropic donations to the Eagles Autism Foundation, annual participation in the Eagles Autism Challenge, and engaging employees and local veterans in the 9/11 Day Meal Pack program. Additionally, we launched the Popcorn for the People production plant with Wawa® to provide career opportunities for the neurodiverse community.

Nouryon All-Pro Teachers Program is one of our longest-standing initiatives with the Eagles. This program honors educators for Grades 5 through 12 who demonstrate exceptional educational drive, classroom innovation, and community involvement.

Through these initiatives, Nouryon not only supports community development but also reinforces our commitment to sustainability and innovation. Our CSR efforts highlight the power of collaboration and our dedication to making a positive impact on society.



Did you know?

Columbus Site in US Recognized As a Forward Together Partner

Nouryon's Columbus, MS, US site was recognized as a Forward Together Partner in 2024. This accolade was awarded during an event hosted by the Lowndes County Board of Supervisors in collaboration with the National Association of Counties (NACo). It was aligned with the nationwide County Government Appreciation Month, themed 'Forward Together,' underscoring Nouryon's positive influence on the community.

The ceremony highlighted several partner companies that contribute to improving the quality of life for employees and families in Lowndes County and the surrounding areas. James Howard, the Site Director at Nouryon Columbus, received a Resolution of the Board of Supervisors presented by the Lowndes County Board. This recognition, sponsored by NACo, celebrated the beneficial impact Nouryon has made in the community.

Established in 1954 as Oldbury Chemical, the Nouryon Columbus site was acquired by Akzo Nobel in the early 1990s and rebranded as Nouryon in 2018, marking a new chapter in its history. The Columbus site is noted for producing sodium chlorate and hydrogen peroxide, crucial for applications such as pulp bleaching in the pulp and paper industry.



Case study

Supporting Families at Ronald McDonald House in Gothenburg, Sweden

In 2024, employees at the Nordic Business Center in Gothenburg continued to volunteer their time to support the Ronald McDonald House by preparing dinners for families with children who are undergoing treatment at the adjacent Queen Silvia's Children's Hospital. Ronald McDonald House offers a temporary home for families from across Scandinavia, with stays ranging from a few days to more than a year. Our efforts alleviate the burden of meal preparation, allowing families to focus on their children's well-being. Five to six Nouryon team members cook meals, while others contribute by providing ingredients or preparing desserts. The initiative serves approximately 60-80 people each time, offering comfort and a sense of community during challenging times.

Our employees' dedication to volunteering was recently recognized by Ronald McDonald House with a special award, making Nouryon the first company to be featured on their Lundqvist, Sweden, wall of fame. This honor underscores the positive impact of our volunteer efforts and strengthens our commitment to supporting these families.



Case study

Mahad Team Supports Local School and Improves Infrastructure

Our Mahad team in India supported Jijamata Madhyamik Vidyalaya, Raigad in enhancing education and improving facilities in 2024, by undertaking the following activities at this rural school, benefitting about 385 students:

- Girl's washroom renovation: Recognizing the importance of a safe and hygienic environment for female students, we renovated the girl's washroom, allowing young girls to focus on their studies without worrying about basic facilities.
- e-Learning kit: Embracing the evolution of education, we provided an e-Learning kit to equip classrooms with technology, enabling interactive learning experiences.
- Curriculum book bank: To ensure 9th and 10th-grade students have access to essential study materials, we established this repository.
- Bicycles bank: By providing bicycles, we enhanced accessibility, enabling students to commute comfortably from remote locations, attend classes regularly, and participate in extracurricular activities.



Case study

Supporting Differently Abled Individuals at The Sunshine School in Mumbai

In 2024, the Nouryon Mumbai team sponsored a dedicated school bus with customized facilities for the Sunshine School in Mumbai, catering to the needs of 100 differently abled students. This initiative aimed to provide secure and dependable transportation for these children, ultimately enhancing accessibility and reducing school dropout rates.

In addition to its educational services, Sunshine School runs a sheltered workshop for differently abled adults, providing vocational training that helps them achieve self-reliance. This year, to celebrate Diwali, the Indian festival of lights, the Nouryon Mumbai team hosted a sale of handcrafted earthen lamps, lanterns, and candles made by workshop students. Nouryon employees enthusiastically purchased them, transforming Diwali into not only a festival of lights but also a celebration of empowerment.

We have previously provided educational aids and rehabilitation materials to support this school, and our employee #Changemakers continue to drive positive change by actively volunteering their time to engage with the students.



4.4 Human Resources – Attracting, Developing, and Retaining Talent

At Nouryon, our Human Resources (HR) initiatives are integral to our sustainability approach. Our global HR team is dedicated to fostering a dynamic and high-performance workplace. We shape an employee experience in which transformational leadership and individual growth are our business enablers. Our efforts are centered on enhancing our organizational culture, attracting top talent, and streamlining processes to ensure efficiency. These initiatives are crucial in driving our business forward and achieving sustainable growth.

Attracting New Talent

We are dedicated to continuously refining our talent acquisition strategy to effectively attract and retain top-tier professionals. Our focus extends to enhancing talent development and performance frameworks, fostering a work environment where both current and prospective employees can find purpose and opportunities for growth. These efforts are vital for nurturing a high-performance culture within our organization.

Our 2024 Performance

In 2024, Nouryon successfully onboarded close to 1,000 new employees globally. Our sustained success also depends on attracting and retaining dynamic leaders who uphold a culture of high performance, ownership, delivery, and process excellence. Over the past four years, we have welcomed 59 senior executive hires and rehires to strengthen our team and drive performance.

To bolster our recruitment efforts, we continued to leverage our employee referral program, 'Who do you KNOW, to help us GROW?'. By tapping into our employees'

networks, we successfully recruited 58 of our new hires in 2024 through this initiative. Successful referrals were rewarded in accordance with Nouryon's Employee Referral Program policy, further incentivizing participation and contributing to building a diverse and dynamic high-performance team.

In 2023, we introduced a new Talent Acquisition strategy that allows Nouryon to stand out by adopting a global approach to attracting and recruiting talent in the local markets in which we operate. Continuing this strategy in 2024, we prioritized our current and future talent needs based on availability, strategic importance, and demand across the various regions where Nouryon is present.

To articulate our Employer Value Proposition to both prospective and current employees, we launched our global Employer Brand, Changemakers, in 2023. This brand specifically appeals to individuals driven to make positive changes in our industry, regardless of their role. Changemakers encapsulates our culture and employer offerings, providing a compelling platform for our employees and supporting us in attracting the best talent within the industry in a competitive market. Additionally, we regularly refresh our career webpages to express the Changemakers value proposition, making our recruitment-focused webpages more accessible and informative. This refinement in our talent acquisition strategy ensures that we continue to attract high-performing talent in our Company.

In 2024, our efforts were primarily focused on promoting the Changemakers employer brand in recruitment. The slogans, 'We are looking for tomorrow's Changemakers, today' and 'The world needs solutions, be a Changemaker,' resonated strongly during our global campus recruitment drives and university roadshows. The employer brand has been embraced internally as well as externally. We actively used this approach in both our online and offline recruitment strategies, including social media marketing: 45% of the total visits to the Nouryon Global

Career webpage come from the global Changemaker campaign. Due to the continuous enhancement of our career's webpages with both global and local content, we have experienced an 111% increase in webpage views. Additionally, we have increased the number of followers on LinkedIn by 37%, helped in part by Changemaker content. These increases in brand awareness have resulted in a 33% increase in applications for our vacancies compared to the previous year.

In China, a standout moment was the Campus Recruitment Online Live Broadcast based on our Changemakers theme, which garnered significant attention, reaching more than 170,000 engagements across various metrics such as views, chats, and likes. Nearly 50,000 individuals watched the broadcast.

Demonstrating Nouryon's innovative spirit, we introduced AI interviews for the first time in our recruitment process in China. These AI interviews evaluate online applicants on various criteria, including English proficiency, job preferences, and behavioral tests. Candidates who excel in these assessments are then invited to participate in professional interviews with hiring managers. We remain committed to exploring new ways to enhance our recruitment efforts and stay ahead of evolving trends.

We understand the importance of a robust onboarding process for integrating new hires into our Company. In 2024, we introduced a new Global Onboarding Training Program. Guided by Noury, our new 'virtual colleague', this program helps employees grasp the core elements of the Company, including our history, strategy, and business operations, in an engaging and interactive way. More details on this can be found in the case study on [page 69](#). By continuously enhancing the onboarding experience, we aim to equip employees with the tools and knowledge needed for them to be successful in their roles and to drive the Company's success.

We remain committed to expanding our talent pool and expertise through strategic partnerships. In 2024, we continued our collaborations with several universities and organizations to attract diverse talent. We take pride in our associations with the Society of Women Engineers and FOSSI (Future of STEM Scholars Initiative). These strategic partnerships resulted in eight full-time career opportunities and 28 internships.

Our diverse internship opportunities across multiple locations are designed to identify young Changemakers and provide them with valuable experience and potential employment opportunities. This initiative not only strengthens our Employer Brand but also enhances our talent pipeline. For more details on Nouryon's various internship programs, please refer to [page 70](#).

New employees, especially those early in their careers or with less than seven years at Nouryon, are invited to join BOOST, a group that provides internal networking and learning opportunities. Employees can also participate in Nouryon's Global Mentorship Program, which enhances overall employee engagement and workplace belonging.

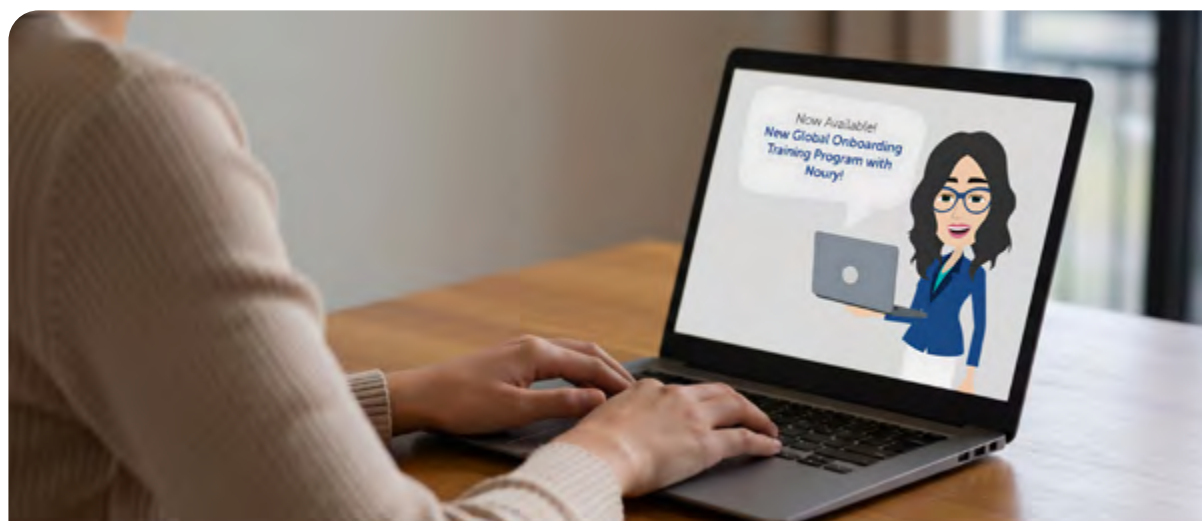
Case study

New Global Onboarding Training Program

Nouryon completed the development of a new Global Onboarding Training Program in 2024. Guided by our new virtual colleague Noury, this training program uses a combination of interactive content, videos, and quizzes to make learning informative, fun, and engaging. This program helps employees understand the core elements of the Company, including its history, strategy, and business operations. It was kicked off with two comprehensive training modules:

- **Company Overview:** This module covers Nouryon's purpose, vision, values, strategy, organization, heritage, and key milestones. It provides new employees with insights into our business segments and strategic priorities, offering a solid foundation to thrive in their roles.
- **Sustainability Commitment:** This module educates employees on Nouryon's dedication to a sustainable future. It includes goals for improving safety and environmental performance, growing and innovating sustainable solutions, and engaging and partnering with stakeholders and communities to drive positive change. Employees also learn key sustainability terms and how they can contribute to meaningful impact.

Future modules will cover additional aspects of our business, such as Company culture, available resources, and operational guides. By continuously enhancing the onboarding experience, Nouryon aims to equip employees with the tools and knowledge needed for success in their roles and to drive our Company's success.



Developing Young Changemakers with Nouryon's Internship Programs

Nouryon fosters young talent through the Engineering Development Program (EDP), Graduate Engineering Trainee, and Summer Internship Programs across global locations. Examples from some of our locations in 2024 include:

- **China:** Nouryon's China Campus Program recruited for the EDP and Summer Intern projects via campus roadshows and online broadcasts. AI interviews assessed applicants, leading to professional interviews. Starting in July 2024, 15 interns from more than 20 elite universities participated in various business activities, including supply chain seminars and sustainability sessions led by senior leaders.
- **India:** In Mumbai, the 2024 Summer Internship Program hosted 20 interns from prestigious institutions such as KJ Somaiya College of Engineering, KJ Somaiya Institute of Management, Symbiosis Center for Information Technology, and Tata Institute of Social Science. The interns took on diverse roles in IM, Finance, HR, Communications & Sustainability functions, and the Innovation Center. The program ran from January to June 2024, culminating in presentations to senior leaders and an Internship Certification Program in July, where Nouryon's Chief Human Resources Officer, Tift Shepherd bestowed certificates.
- **US:** The 2024 Summer Internship Program included 28 interns, with 12 in corporate functions and 16 in ISC manufacturing sites. The program featured interactions with Company leaders, discussions on sustainability, decarbonization, AI, and research and development, and tours of manufacturing sites to provide a comprehensive understanding of the business. The program concluded with the Nouryon Intern Summit, offering a platform for future Changemakers to showcase their learnings.
- **Collaboration and Global Engagement:** An online virtual connection between US and China interns facilitated knowledge exchange, showcasing the global nature of Nouryon's programs. HR representatives shared progress and plans, emphasizing collaboration and support.

Nouryon's internship programs in China, India, and the US highlight the Company's commitment to developing future leaders and fostering professional growth.



Our Employer Value Proposition, Compensation and Benefits

GRI 2-7, GRI 2-8, GRI 2-30

Our global Employer Brand, Changemakers, encapsulates our employee offering. Nouryon's success is driven by Changemakers who contribute to creating essential solutions. Across our production facilities, offices, and Innovation Centers worldwide, a shared passion for innovative, sustainable solutions, partnership, collaboration, and problem-solving thrives. We take pride in being Changemakers.

Our total rewards framework is globally aligned and versatile, catering to the diverse needs of our employees. We regularly review our programs to ensure they remain competitive with local and industry standards.

We are committed to making objective, unbiased decisions that adhere to fair employment practices. Leadership continually reviews compensation programs and decisions to ensure employees are fairly rewarded for their performance-based contributions. Nouryon enhances the health, well-being, and financial stability of our employees and their families by offering country-specific programs such as employee assistance, parental leave and preventative health check-ups. This commitment helps us to be an employer of choice.

At the core of our talent acquisition and retention strategy is the continuous development of our employees and leaders. We promote both immediate and long-term skills development, encouraging our employees to embody our values. We support and encourage employees to seek opportunities to learn and grow while taking ownership of their individual career paths.

To further enhance talent retention and engagement, we plan to refine our job architecture and conduct comprehensive compensation benchmarking to ensure competitive packages and clear career progression.

Understanding employee experiences through regular surveys and feedback sessions will help us address their needs and improve job satisfaction. Our Employee Value Proposition extends beyond financial rewards, emphasizing professional development, a supportive culture, and comprehensive benefits to position Nouryon as an employer of choice. Additionally, we are investing in upskilling programs to ensure our workforce remains agile and future-ready, fostering continuous learning and development to drive innovation and success.

Our Living Wage Commitment

Building on our 2023 success, we expanded our Global Living Wage analysis to cover 15 countries, representing 97.3% of our employees. This analysis, based on benchmarks from the Fair Wage Network. We committed to ensuring 100% of our employees receive a living wage by 2030 and continuously thereafter, with plans to extend the study further in 2025 to cover smaller countries. Nouryon is committed to implementing compensation changes as necessary to achieve the living wage benchmark for the tested population.

To maintain fair and competitive compensation practices, we established the Compensation Review Board (CRB) in 2024. The CRB reviews, assesses, and makes recommendations on compensation and benefits practices, ensuring they are fair, competitive, and consistently applied across the Company. The CRB meets regularly but remains flexible to address urgent cases as needed.

Our 2024 Performance

In 2024, the Changemakers campaign continued, showcasing testimonials from our global workforce. These stories celebrated their diverse backgrounds, professional expertise, innovative mindsets, and commitment to sustainability, vividly illustrating Nouryon's culture.

Additionally, in October 2024, we marked Nouryon's six-year anniversary with a refreshed look for our social media handle, developed in collaboration with the business.

We recognize the importance of taking annual leave for mental and physical well-being, productivity, and creativity. Nouryon provides annual leave according to local laws and policies, encouraging employees to take their allotted time each year. In 2024, we launched our Flexible Work Location Policy. This policy balances the benefits of flexible work with the advantages of in-office collaboration, development, and innovation.

To support our growth ambitions, we introduced and promoted Nouryon's Leadership Capability Framework (LCF) in 2024. The LCF defines, develops, and enhances our leadership capabilities, aligning competencies and behaviors with our strategic objectives and values. It outlines the skills and conduct expected from both individual contributors and people leaders. Read more on [page 72](#).

In 2024, we launched our new quarterly update, 'Know Your Nouryon Quarterly,' dedicated to celebrating Nouryon's achievements. Each edition will highlight our successes, showcase the innovative work of our Changemakers at manufacturing sites, and explain how these efforts contribute to our collective Company success. Between these quarterly updates, we will publish 'Know Your Nouryon Monthly' to highlight and celebrate one of our sites worldwide.

Case study

Nouryon Leadership Capability Framework

Nouryon's Leadership Capabilities Framework (LCF), launched in February 2024, is a strategic guide to define, develop, and enhance the leadership capabilities of our employees. It outlines the competencies and behaviors that align with our strategic objectives and values. At Nouryon, a leader is defined as someone who: Drives Performance, Serves Customers, Thinks Critically, Collaborates Proactively and Develops People.

The framework details each capability and helps nurture internal talent by ensuring leaders have the necessary skills and knowledge to guide our Company towards success. The LCF offers a comprehensive account of the skills and conduct anticipated from both individual contributors and people leaders.

Every Nouryon employee, regardless of region, business, function, or role, is encouraged to consider and apply the LCF in daily interactions and decision-making processes. Throughout 2024, awareness of the LCF was promoted through workshops, focus articles, newsletters, real-life leadership stories, and success stories. We also embedded the Leadership Capabilities into our competency-based hiring framework to support us in bringing new talent onboard with the right mindset. This ensures Nouryon remains a dynamic, forward-thinking organization, well-equipped to meet future challenges and opportunities.

Leadership Capabilities Framework



Learning, Leadership, and Development

[GRI 2-7, GRI 2-8, GRI 2-29, GRI 2-30]

Nouryon's sustained performance and growth are driven by our focus and commitment to continuous learning and skills development for our employees and leaders. We offer a comprehensive range of learning opportunities, including leadership and employee development programs, practical work experiences, blended programs, online learning, virtual classroom training, and essential compliance and cybersecurity courses. Our global digital learning platform empowers employees to effortlessly access relevant training, enroll in scheduled courses, and engage in 24/7 online learning. This flexibility ensures that learning is tailored to individual preferences and schedules, maximizing impact and driving results.

Our 2024 Performance

Nouryon continues to provide comprehensive leadership development programs tailored to cultivate effective leadership within the organization. These include the Senior Leadership Program (SLP), the Regional Leadership Program (RLP), and the Leadership Excellence Program (LEX).

In 2024, we hosted our third annual SLP, training a new cohort of 26 leaders. Built upon Nouryon's LCF, the program prepares participants for senior leadership roles. It received an impressive participant rating of 4.92 out of 5, primarily due to how the program was built, making it strategic, relevant and relatable. The RLP, pilot-launched in the Asia-Pacific region in 2024, integrates the LCF and equips new managers and managers to be with tactical leadership tools. Targeting middle managers and high-potential individuals, the program engaged 26 participants. LEX was implemented across the Americas for approximately 100 participants and in Europe for around 115 participants at 34 sites. More details about these programs are available on [page 74](#).

Our leadership development training RISE is a 6-month online training program targeting experienced leaders. This program is designed to help leaders build upon their existing leadership skills and equip them with new tools and techniques to make effective work decisions that are aligned with the Company's strategy. RISE was completed by 32 participants globally in 2024.

Additionally, 18 participants completed our 18-week digital global leadership program, LEAP (Lead, Engage, Accelerate, Perform). This program focuses on leadership skills, including personal bias awareness and cultivating an inclusive culture, all tied to Nouryon's values, strategy, and focus areas.

Our leadership development training, JUMP, initiated in 2021 for potential leaders not currently in managerial roles, continued in 2024 with 35 participants. They enhanced their self-awareness and improved coaching and networking skills. STEP training, aimed at leaders with direct reports, was also repeated in 2024, with 141 participants, and continued providing essential knowledge regarding people, processes, and systems.

Our generative artificial intelligence (Gen AI) awareness initiative gained momentum in 2024. Our Information Management (IM) function advanced our internal version of ChatGPT, launched for all employees in 2023, and supported it with training on the safe usage of Gen AI tools. Nouryon's internal ChatGPT now includes SharePoint search and document upload capabilities. Access to the Gen AI platform is granted to employees upon completion of training and acceptance of the protocol. A Gen AI steering committee remains informed of evolving trends to ensure Nouryon employees remain at the forefront.

We emphasize cybersecurity awareness and training, conducting regular sessions and surprise phishing tests to equip our employees with the knowledge and skills to identify and respond to potential cyber risks, ensuring the security and integrity of our digital infrastructure.

Our comprehensive sales development program begins with an understanding of the Company's story and growth strategy. In 2024, we conducted 47 instructor-led classes with 522 employees participating and 1,093 staff members following e-learning courses using various learning modalities to instill selling principles and foster skills development.

This year, we enhanced our ISC learning programs, introducing multilingual courses, interactive classroom sessions, and online modules, including updates to Asset Integrity and Process Safety Management e-learning. We launched our first online Advanced Statistics training and promoted Lean Six Sigma certification among 160 candidates. In Finance, we provided open courses on nine key topics. Our comprehensive onboarding program continues to emphasize safety and compliance, with mandatory training sessions conducted online and offline to ensure a thorough understanding of and adherence to our protocols.

We also expanded our existing three-year rotational program for engineers in the US and started a program in Brazil and China within our ISC function, known as the Engineering and Development Program. This initiative identifies and cultivates promising early-career engineers, preparing them for various leadership roles in manufacturing across multiple sites and disciplines. In 2024, the program had 11 full-time rotational engineers in the US, three full-time rotational engineers in Brazil, and three full-time rotational engineers in China. In addition to the rotational program, we offer internships and co-ops.

For our IM staff, we continued offering a training curriculum in 2024 that focused on core information management competencies, including security and compliance, connecting people, ensuring delivery, driving productivity, data utilization and reporting, and catalyzing growth.

Performance Management

To sustain our Company's growth and enhance employee performance, we utilize a Continuous Performance Management methodology. This approach includes setting dynamic objectives, conducting regular reviews, and offering ongoing feedback. It acts as a catalyst, ensuring that our employees and leaders remain engaged and perform at their highest potential in their roles, contributing to the overall success of Nouryon.

Our 2024 Performance

In 2024, 93% of our workforce participated in the full annual performance management cycle.

Workforce Metrics

| Headcount ⁴³ | | Gender | | | |
|-------------------------|--------------|------------|--------------|------------|--------------|
| Region | Female | % | Male | % | Grand Total |
| Asia-Pacific | 487 | 26% | 1,415 | 74% | 1,902 |
| Europe | 968 | 24% | 3,076 | 76% | 4,044 |
| North America | 388 | 25% | 1,173 | 75% | 1,561 |
| South America | 208 | 19% | 860 | 81% | 1,068 |
| Grand Total | 2,051 | 25% | 6,124 | 75% | 8,175 |

| Headcount ⁴³ | | Full-Part Time ^{44,45} | | | |
|-------------------------|--------------|---------------------------------|------------|-----------|--------------|
| Region | Full Time | % | Part Time | % | Grand Total |
| Asia-Pacific | 1,899 | 99.8% | 3 | 0.2% | 1,902 |
| Europe | 3,394 | 93% | 250 | 7% | 3,644 |
| North America | 1,560 | 99.9% | 1 | 0.1% | 1,561 |
| South America | 1,068 | 100% | | | 1,068 |
| Grand Total | 7,921 | 97% | 254 | 3% | 8,175 |

⁴³ Data includes regular employees and expatriates.

⁴⁴ Full/part-time is defined as: Less than one full-time employee (FTE) is part time, otherwise full-time.

⁴⁵ Temporary staff is defined as employees having a fixed-term contract.



Case study

Leadership Development and Excellence Programs at Nouryon

Nouryon offers comprehensive leadership development programs, including the Senior Leadership Program (SLP), the Regional Leadership Program (RLP) and Leadership Excellence Program (LEX), designed to cultivate effective leadership within the organization.

Senior Leadership Program (SLP): The SLP is tailored to instill the unique skills and attributes necessary for senior leaders to succeed at Nouryon. Built upon Nouryon's Leadership Capabilities Framework, the program emphasizes essential leadership behaviors, knowledge, and attributes, providing tools to translate this knowledge into actionable activities. Participants get an opportunity to connect with the Nouryon leadership team and network with peers from across the globe. In 2024, the program received an impressive rating of 4.92 out of 5 from participants.

Regional Leadership Program (RLP): Piloted in the Asia-Pacific region in 2024, the RLP embeds the LCF and equips managers with tactical leadership tool kits. It includes enhanced understanding, tactical tools, and Action Learning Projects for practical application. Targeting middle managers and high-potential individuals, the program gathered 26 participants with high engagement. Senior leaders shared insights, earning the program a rating of 9.1 out of 10.

Leadership Excellence Program (LEX): Implemented across Americas for approximately 100 and in Europe for around 115 participants at 34 sites in 2024, LEX aims to enhance our ISC leaders' abilities in leadership, people management, and HR processes. These sessions amounted to about 260 learning hours in total. Directly connected to the LCF, it includes eight modules on leadership, feedback, coaching, communication, change management, people management, work environment, and labor law. Sessions were held both in-person and online, contributing to greater and more consistent team results.



4.5 Culture of Excellence and Belonging

At Nouryon, we are dedicated to unlocking the full potential of our global workforce, fostering collaboration and innovation, and deepening our understanding of our customers' unique needs. Our culture is deeply rooted in our workforce and anchored in our values and Code of Business Conduct & Ethics. Our values propel us to create a workplace where every individual feels valued, heard, and empowered to contribute their ideas and challenge the status quo. By embracing these values, we foster a culture of belonging and an environment of innovation and excellence, ensuring that every voice matters, and every contribution drives us forward.

Our unwavering commitment ensures that our employees uphold the principles of equality, treating all colleagues with respect and dignity, regardless of age, race, nationality, gender identity, or sexual orientation. This commitment extends beyond our workforce, influencing our relationships with customers, suppliers, and communities. By fostering a culture of belonging and embracing a workforce that reflects the communities in which we operate and the customers we serve, including diverse experiences and perspectives, we believe we can drive business growth, unlock the full potential of our teams, and contribute to a more sustainable future.

Our 2024 Performance

In 2024, we offered many employee events, both virtual and live, across various geographies. These events aimed at strengthening connections among employees while supporting their professional development and growth. For example, the Nouryon Women's Network organized

empowerment activities for our employees throughout the year and spearheaded the Company's celebration of International Women's Day in March, orchestrating events across 10 locations in five countries. Read more on [page 77](#).

The Nouryon Veterans Network focused on fostering a sense of community among service members, veterans, and their families while educating our employees about the value of military experience and its alignment with our Company values. In 2024, the network expanded to 17 US locations and appointed 12 Veteran Network Advocates to guide its members at a grassroots level. On US Veterans Day 2024, the network honored its 130 members with Challenge Coins engraved with Nouryon's values and an appreciation message. The Nouryon Veterans Network newsletter also published editions on military service in Norway and Finland to further educate employees about the relationship between military service and Nouryon's values in other cultures.

Nouryon proudly sponsors and provides mentors for the American Corporate Partners program, demonstrating our commitment to supporting post-9/11 veterans and their spouses. Nouryon leaders have also made significant contributions to the program. In 2024, 19 veterans and spouses completed their mentorships with Nouryon mentors, gaining valuable insights and professional development. Read more on [page 77](#).

Nouryon appreciates the invaluable contributions of employees from diverse backgrounds, experiences, and perspectives. Their unique insights are crucial in understanding, anticipating, and meeting the evolving needs of our global customer base, both now and in the future. Nouryon has 36% representation of gender and racial/ethnic diversity on our Board of Directors⁴⁶, and 26% female representation among mid-level managers and above.⁴⁷

⁴⁶ Board members who are female and/or of a US racial/ethnic minority.

⁴⁷ Mid-level managers are defined as the management paygrade below the first senior-executive level. Source data: December 2024.



Case study

Nouryon Women's Network Annual Activities

The Nouryon Women's Network, an employee-led group, organizes various empowerment activities for our employees throughout the year. These activities include knowledge-sharing and guidance sessions featuring both internal and external speakers.

In 2024, senior Nouryon leaders such as Suzanne Carroll, Ann Lindgärde, and Sandra Gillberg shared their experiences and insights on making cross-functional career changes. Additionally, the BRG hosted an external speaker session with Noelle Walsh, Corporate Vice President at Microsoft and an independent board member at Nouryon, focusing on digitization, innovation, and learning.

In March, the Nouryon Women's Network led the Company's celebration of International Women's Day across 10 locations in five countries, themed 'Inspire to Change.' Ahead of the celebration, employees engaged in conversations on Viva Engage, sharing their thoughts on the theme through videos and personal stories.

Apart from global activities, several local events are also organized for our female employees on a regular basis by regional Women's Network representatives. These activities highlight Nouryon's commitment to empowering women and supporting their professional growth within the workplace.



Case study

Nouryon's Commitment to Supporting Veterans through Mentorship

Nouryon proudly sponsors and provides mentors for the American Corporate Partners (ACP) program, showcasing our commitment to supporting post-9/11 US veterans and their spouses. In 2024, 19 veterans and spouses completed their mentorships with Nouryon mentors, gaining valuable insights and professional development. As of December 2024, there were 18 active mentorships and two in the pairing process, ensuring continued support.

Since the program's launch in 2020, Nouryon has supported 100 veteran and spouse protégés. This includes 73 protégés working directly with 46 Nouryon mentors and 27 via the Citizens mentor program, funded by Nouryon's annual sponsorship contributions. During this period, 50 veterans and spouses secured employment through their mentorships, demonstrating the program's effectiveness.

Nouryon leaders have made significant contributions to the program. Jason Thorne led a webinar in July, along with John Callaway, Regina Tracy and Kendall Headley, on translating military planning skills to the civilian sector, while Lauren Mulqueen, Joe Ferrara, and Nate Norman received positive feedback for their involvement. Nouryon's dedication to veteran mentorship enhances professional prospects for veterans and our ongoing involvement in the ACP program reflects our commitment to positively impacting their lives.





Global Mentorship Program

Our Global Mentorship Program, open to all employees, aims to expand networks, introduce fresh perspectives, develop new skills such as critical thinking, and foster professional relationships. This initiative enhances employee engagement and a sense of belonging.

Our 2024 Performance

In 2024, our global mentorship program featured 75 paired participants, including 60 new pairings compared to 2023. Some mentors also took on more than one mentee. We integrated mentoring with our Leadership Capability Framework, making it an integral part of Nouryon's development offering. This approach nurtures the growth

and readiness of individual contributors, current, and future leaders, through diverse perspectives and invaluable insights, aligning with our leadership expectations and capabilities. Additionally, in 2024, the program introduced a learning series focused on goal setting, professional development, and cross-cultural collaboration, further enriching the mentorship experience.

In 2024, we continued to offer multiple leadership courses, including targeted leadership training, to our leadership teams and emerging leaders through our SLP Program. We also integrated mentoring with our Leadership Capability Framework, making it an integral part of Nouryon's development offering.

We gained a deeper understanding of the existing diversity within our organization by analyzing data. Additionally, we

supported several initiatives aimed at promoting diversity in STEM fields, such as:

- Encouraging the growth of the Nouryon Women's Network, dedicated to connecting and empowering women in chemistry through networking and professional development opportunities.
- Celebrating International Women's Day and the International Day of Women and Girls in Science.
- Collaborating with the Society of Women Engineers and the National Society of Black Engineers to offer career opportunities to female engineering students and professionals.

These efforts reflect our ongoing commitment to fostering an inclusive and diverse workplace, driving innovation, and ensuring that we meet the evolving needs of our global customers.

5. Our Solid Governance



- 5.1 Compliance and Ethics
- 5.2 Sustainable Sourcing Practices
- 5.3 Policy Engagement and Memberships
- 5.4 Governance
- 5.5 Risk Management

 Click on the tile to go to the corresponding section.

Relevant Policies and Programs

- Acceptable Use of Nouryon Systems and Devices Policy
- Anti-Corruption Policy
- [Animal Testing Policy](#)
- [Business Partner Code of Conduct](#)
- [Code of Business Conduct & Ethics](#)
- [Conflict Minerals Policy](#)
- Competition Law Compliance Policy
- Conflict of Interest Policy
- Employee Privacy Policy
- External Spend Policy
- Global Travel and Expense Policy
- Media Policy
- Meal, Gift, and Business Entertainment Policy
- [Quality, Health, Safety, Environment and Security Policy](#)
- Record Retention Policy
- Sensitive Country Policy
- Social Media Policy
- [Sourcing Sustainable Palm Oil](#)
- SpeakUp! and Non-Retaliation Policy
- Sponsorship and Charity Policy
- [Sustainable Procurement Policy](#)
- Sustainable Procurement Supplier Engagement Policy
- [Tax Strategy](#)



Strong Governance and Risk Management

At Nouryon, we are dedicated to responsible and ethical operations. Our commitment is evident in our decision-making process, strict adherence to regulatory requirements, proactive risk mitigation strategies, and enforcement of ethical standards. These principles shape our interactions with customers and suppliers and define the core values of our Company. Our robust Governance and Risk Management capabilities ensure we consistently maintain these high standards, reinforcing our integrity and accountability in every aspect of our business.

5.1 Compliance and Ethics

Our global operations expose us to a growing array of stringent laws and regulations. These encompass the safe handling of hazardous substances, managing operational impacts, addressing historical soil and groundwater contamination, product liability, human rights issues, economic sanctions, antitrust laws, and anti-corruption legislation.

Legal and Regulatory Compliance

GRI 2-23, GRI 2-27

Our internal subject-matter experts diligently oversee compliance with laws and regulations, providing necessary guidance and training. We set clear expectations for ethical conduct through our Code of Business Conduct & Ethics, with annual mandatory training for all office-based and site management employees. Additionally, we have a Business Partner Code of Conduct that applies to all our business partners. As a global organization, we comply with local regulations, including the General Data Protection Regulation (GDPR) in Europe.



Emphasis on Ethics

GRI 2-23, GRI 205 3-3, GRI 205-2, GRI 2-23, GRI 2-24

Our Compliance program encompasses mandatory annual training, policies, and procedures, third-party due diligence and monitoring, as well as the investigation and remediation of unethical, illegal, or inappropriate conduct. This comprehensive approach helps our employees and stakeholders understand and adhere to Nouryon's high standards of ethical business conduct, ensuring compliance with legal and regulatory requirements, and embodying our value 'We Do It Right.'

We commit to annually training 100% of our employees on the Code of Conduct by the end of 2025, including topics on harassment and discrimination, respectful workplace, cybersecurity, workplace safety, forced labor, child labor, SpeakUp!, and non-retaliation. Mandatory training on other Code topics will be assigned based on employee exposure to certain risk areas, such as conflict of interest, fraud, anti-competition, bribery and corruption, and international trade. We have had zero Foreign Corrupt Practices Act incidents since establishing our Company in 2018. We also do not have any known cases of child or forced labor within our Company or operations.

We conduct regular audits of our operations. Additionally, Nouryon's office-based and site management employees review and acknowledge our high expectations by completing an Annual Policy Certification and mandatory compliance training. As part of our anticorruption measures, employees are also required to adhere to our Meal, Gift, and Business Entertainment Policy.

Our commitment to compliance and ethics is supported at the highest levels of our Company, starting with our Chairman and CEO. The Executive Vice President and Chief Financial Officer, Executive Vice President, Business Affairs and General Counsel, and Senior Vice President and Chief Human Resources Officer provide executive oversight of our compliance performance through the Compliance

Committee, chaired by our Chief Compliance Officer. The Board of Directors and Audit Committee receive regular updates on our Company's compliance program, and our Board approves any changes to our Code of Business Conduct & Ethics.

Employee Awareness

GRI 2-15, GRI 2-23, GRI 205-2, GRI 205-3

Nouryon's Code of Business Conduct & Ethics mandates that all employees act ethically and comply with all applicable laws, including anti-bribery, anti-corruption, antitrust and competition laws, anti-discrimination/harassment laws, data protection laws, and economic sanctions. We value the diversity of our workforce and are dedicated to providing equal opportunities in all aspects of employment, strictly prohibiting discrimination based on age, race, color, national origin, religion, sex, gender identity, sexual orientation, or any other protected status. We do not tolerate discrimination or harassment of any kind, including derogatory comments based on race or ethnicity, or unwelcome sexual advances.



Compliant Partners

GRI 2-23, GRI 2-24

Our dedication to ethical business conduct extends far beyond our workforce to include our business partners. We require our partners to comply with Nouryon's Business Partner Code of Conduct, which covers adherence to laws and regulations, safety standards, ethical and responsible business practices, treatment of individuals, fundamental human rights within supply chains, exclusion of conflict minerals, and fraud prevention. We engage only with suppliers, customers, and other business partners who share and support our standards. Certain third parties must also undergo a due-diligence process to provide information about their ownership, compliance programs, and any relevant legal or regulatory issues, including economic sanctions. We continually monitor these third parties digitally for sanctions, regulatory fines, or adverse media. Any breach or violation can prompt Nouryon to reassess business relationships.

In 2024, we renewed our risk assessment regarding conflict minerals for all our suppliers and identified those that could pose risks. Conflict minerals, such as tantalum, tin, tungsten, and gold (commonly referred to as 3TG), are used in Central Africa to fund armed conflicts, often involving child soldiers. Nouryon currently only leverages tin and has a very limited number of suppliers, allowing for

increased due diligence and limited risk exposure. For any sourced materials containing 3TG, we require our suppliers to complete the Conflict Minerals Reporting Template as part of our due diligence to confirm that conflict zones and groups are avoided, ensuring that Nouryon does not inadvertently contribute to such conflicts and practices.

Nouryon's Code of Business Conduct & Ethics explicitly states that we will not engage in, or conduct business with any third party involved in, the use of forced or involuntary labor, human trafficking, or child labor. Our manufacturing operations generally require skilled employees with education levels equivalent to high school, thus posing a lower risk of child or forced labor. We comply with all local labor laws, which mandate verifying the age of our employees upon joining the Company. We also assess potential forced labor and modern slavery risks in our supply chain through risk assessments of inputs and supplier questionnaires, and we follow up appropriately on any concerns raised.

Encouraging Everyone to SpeakUp!

GRI 2-25, GRI 2-26

At Nouryon, we prioritize transparency and accountability by encouraging all stakeholders – including employees, suppliers, customers, and business partners – to report any

concerns. Through our SpeakUp! program, stakeholders can report suspected policy violations, inappropriate behavior, and illegal or unethical practices. We promote contact information via our intranet, website, periodic training, posters in offices and manufacturing sites, and within our Company Code of Business Conduct & Ethics and Business Partner Code of Conduct. Our SpeakUp! and Non-Retaliation Policy (whistleblower protection) ensures that employees can report concerns in good faith without fear of retaliation. We strictly maintain employee confidentiality in compliance with local regulations, including the GDPR in Europe. Based on the Navex Global Benchmarking report, we receive SpeakUp! reports in an amount that is in line with our peers.

Our 2024 Performance

SpeakUp! reports can be made anonymously and confidentially via a telephone hotline and email, available in 30 languages, as permitted by law. In 2024, all SpeakUp! concerns were registered and resolved within an average of 30 days. To further streamline the process, we introduced the updated SpeakUp! Process to our employees, clearly outlining the steps involved in reporting and addressing concerns. This initiative reinforces our commitment to maintaining a safe and ethical work environment for everyone involved with Nouryon.

SpeakUp! Process

When it comes to reporting ethics and compliance concerns, Nouryon employees have a variety of options, including our global SpeakUp! hotline. Incidents can be reported anonymously and confidentially (as allowed under applicable law), via telephone and online, in any of 30 languages. This infographic describes the SpeakUp! Process flow to our employees, and potential reporters, highlighting how the reporting and investigation processes work. Questions about this process can be directed to nouryoncompliance@nouryon.com.



Submit a SpeakUp! report – If you see something, say something

Reporting options:

- Manager
- HR
- Legal
- Compliance
- SpeakUp! hotline

If reported via the SpeakUp! hotline, check back regularly in case the investigator has additional questions, and remember to save your case number



Determine whether investigation is necessary or possible

- Is there sufficient information?
- Is the report an allegation or inquiry?
- All reports of possible violations of our [Code](#) or applicable laws will be evaluated promptly and investigated as appropriate

If you decide to submit anonymously, remember to provide sufficient details (e.g., who, what, when, where?)



Assign investigator by issue

- Legal & Compliance
- HR
- Internal audit

The majority of reports we receive involve how employees treat each other (e.g., respect in the workplace) – these matters are typically referred to HR



Conduct confidential investigation

- All reports are kept confidential as allowed under applicable law
- You may be asked to cooperate during an investigation. Refusing to do so, is a violation of our [Code](#)
- If you ever feel you have been retaliated against for submitting a SpeakUp! report, you should promptly contact the Compliance team

We aim to address and resolve all reported SpeakUp! concerns within an average of 30 days



Determine outcome

- Substantiated: policy violation found
- Unsubstantiated: no policy violation found
- Cases may be closed due to insufficient information if a reporter does not answer follow-up questions within two weeks



Where appropriate, take remedial action

- Examples of potential remediation include site temperature checks⁴⁸, coaching, training, verbal or written warnings, and termination

⁴⁸ General questions to inquire about employee perceptions, professionalism, management actions, etc.



5.2 Sustainable Sourcing Practices

We actively encourage our suppliers to join us in our journey towards a sustainable future, ensuring they evolve in sustainability alongside Nouryon and our customers. Every business partner, including suppliers and customers, must comply with our Business Partner Code of Conduct, which outlines our expectations regarding compliance, safety, ethics, human rights, fraud prevention, and sustainability support.

Our membership in Together for Sustainability (TfS), which began in 2023, has strengthened our supplier audit capabilities and provides access to industry best practices. This membership benefits our customers and business partners by enhancing sustainability throughout our supply chain. Founded in 2011, TfS unites more than 50 member companies dedicated to raising sustainability standards in the chemical industry.

TfS supports the principles of the United Nations (UN) Global Compact and Responsible Care®, and partners with several industry councils. Membership provides access to TfS Assessments and Audits, allowing companies to evaluate and improve sustainability performance. These tools assess supplier performance in environmental, labor, human rights, ethical, and sustainable procurement areas, driving change beyond the chemical industry. The TfS Scope 3 greenhouse gas (GHG) emissions program aids members in reducing emissions, offering tools to calculate and share high-quality product carbon footprints of chemical materials.

Driving Sustainability with Our Suppliers

We utilize EcoVadis and EcoVadis Risk IQ to evaluate and monitor the sustainability performance and risk of our suppliers across multiple categories, including environment, labor and human rights, ethics, and sustainable procurement. EcoVadis scores are based on supplier policies, actions, and results. If a supplier fails to meet specific performance criteria, we implement a corrective action process to drive improvement or explore alternative sourcing if necessary. In 2024, our global procurement team added 368 suppliers to our EcoVadis network and engaged 67 suppliers to implement a corrective action plan, fostering positive conversations and engagement to advance their sustainability journeys.

As stated in our Sustainable Procurement Policy, Nouryon may audit business partners to verify compliance with it as a condition to working with Nouryon. Business partners that are not compliant may be required to engage in corrective action to continue working with Nouryon. This approach allows us to engage suppliers on sustainability matters and encourage improvement.

Our 2024 Performance

In 2024, we continued to educate Nouryon category managers about sustainable sourcing and supplier requirements, including our sustainability approach and goals, with plans for new training opportunities. The goals and metrics supporting our EcoVadis sustainability assessment and rating are integrated into the individual performance objectives of our Procurement team.

We assessed 93% of our suppliers for Corporate Social Responsibility (CSR) risk using the EcoVadis Risk IQ tool (% of external spend). This is up 3% from the previous year. Additionally, 74% of suppliers, versus 66% in 2023, were evaluated on their CSR performance by an EcoVadis score (% of external spend). This practice enables us to promote sustainability within our supply chain and serve our customers with credibility and confidence.

Through this supplier assessment, we can also reward compliance with our sustainability standards, considering their EcoVadis raw materials score along with exceptional partnership in sustainability, reliability, and strategic collaboration.

Our 2024 Supplier of the Year Award event recognized the following partners for outstanding collaboration:

- Anhui Huaheng Biotechnology Co., Ltd
- Asahi Kasei Corp./IVICT Europe GmbH
- Fertiglobe
- Kraton Corporation
- Olin Corporation
- Permascand AB
- Vantage Specialty Chemicals

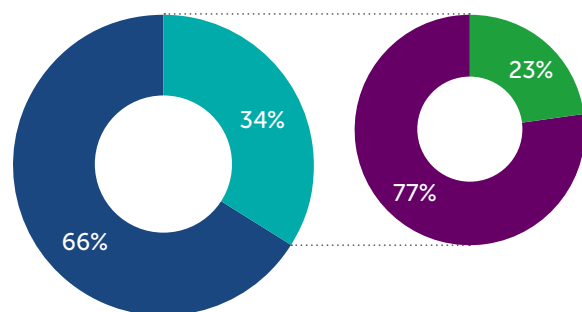
For more information, see [page 86](#).

To meet the growing demands of our customers for enhanced product sustainability, we develop products using biobased raw materials that are partially or fully derived from natural sources.

Genetically Modified Organisms

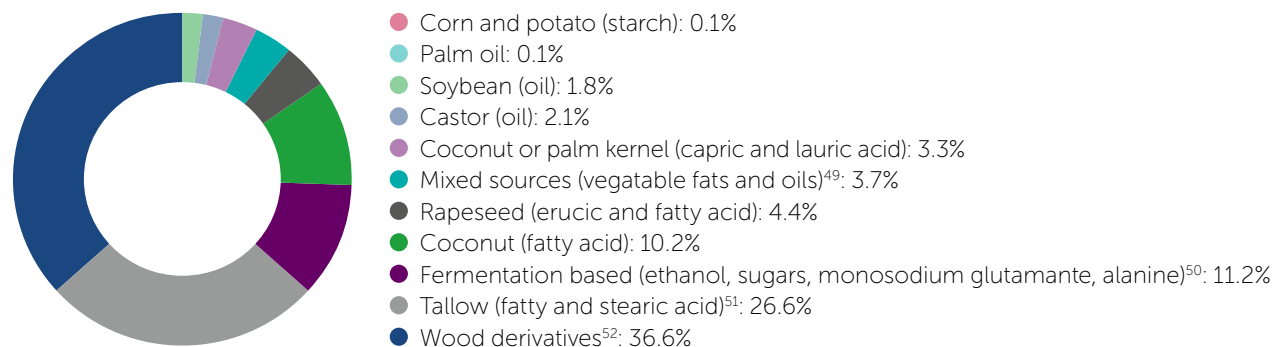
Nouryon does not produce Genetically Modified Organisms (GMOs). Our products do not rely on GMOs for their functionality, nor do we use GMOs in our manufacturing processes to introduce variability. Certain raw materials we utilize, such as soybean oil and cotton linter cellulose, may originate from GMO crops before we incorporate them into our production.

23% of Organic Raw Materials are Made From Renewable Sources



- Inorganic raw materials (e.g. salt, minerals, clay)
- Organic raw materials
- Fossil-fuel derived (petrochemicals)
- Renewable, biobased

Biobased Raw Materials Purchased by Nouryon



⁴⁹ Mixed sources of fatty acids

⁵⁰ Ethanol (crop depends on region, but ~70% of world production is derived from sugar cane, sugar beets, and molasses); monosodium glutamate; alanine (from sugar beets, sugar cane, tapioca, molasses, and corn); sugars (glucose and others, from corn, rice, wheat, cassava, corn husk, and sago); acids (dimer, gluconic, citric, sebacic, tartaric, etc., from various sources).

⁵¹ Stearic acid is predominately produced from tallow; however, it can originate from other fats and oils.

⁵² Cellulose, tall oil, gum rosin, etc.

Supporting Responsible Palm Oil

Palm oil is a critical biobased feedstock in our operations. We endorse the industry benchmark for sustainable palm oil, represented by the [Roundtable on Sustainable Palm Oil](#) (RSPO), and have secured RSPO Mass Balance certification at five facilities that manufacture Nouryon products. While we use processed palm oil products and do not directly interact with palm mills or plantations, we actively check and engage with our suppliers on the topic of the No Deforestation, No Peat, No Exploitation commitment. We believe in the responsible cultivation of palm oil and are committed to sourcing options that do not pose environmental or social issues within the supply chain.

In line with the EU Deforestation Regulation (EUDR) [regulation (EU) 2023/1115], Nouryon is preparing the necessary due diligence for any imported product listed in Annex I of the regulation to ensure compliance with all regional and global legislations. EUDR is expected to take effect December 2025, after a previous one year postponement.



Our 2024 Supplier of the Year Awards

We recognized seven of our top global supply chain partners through Nouryon's annual 2024 Supplier of the Year Awards event held in Cascais, Portugal. The suppliers were identified and assessed based on their business criticality, growth potential, reliability, sustainability performance, and their efforts to strengthen Nouryon's competitiveness in 2024.

The 2024 winners were:

- Anhui Huaheng Biotechnology Co., Ltd
- Asahi Kasei Corp./IVICT Europe GmbH
- Fertiglobe
- Kraton Corporation
- Olin Corporation
- Permascand AB
- Vantage Specialty Chemicals



5.3 Policy Engagement and Memberships

We actively collaborate with legislative and regulatory authorities, industry and trade associations, and non-governmental organizations. Through trade associations, we contribute to policy discussions on sustainability within our sector, focusing on climate mitigation and adaptation, energy efficiency, carbon reduction, water management, waste management, product and process safety, and circular chemistry.

Managing Engagement on Policy

We manage our direct and indirect interactions with policymakers and associated organizations carefully. The scope and business impact of specific policy issues are evaluated during our annual business review meetings and our Enterprise Risk Management assessment process. This ensures that our public-policy-influencing activities align with our business strategy. Any inconsistencies are promptly flagged by the Government Affairs team and communicated to the relevant departments within Nouryon.

In line with our Code of Business Conduct & Ethics and our Company policies, Nouryon does not provide financial contributions or endorsements to political parties or politicians. We do not operate a political action committee (PAC) in the US, nor do we contribute to the PACs of industry and trade associations to which we belong.

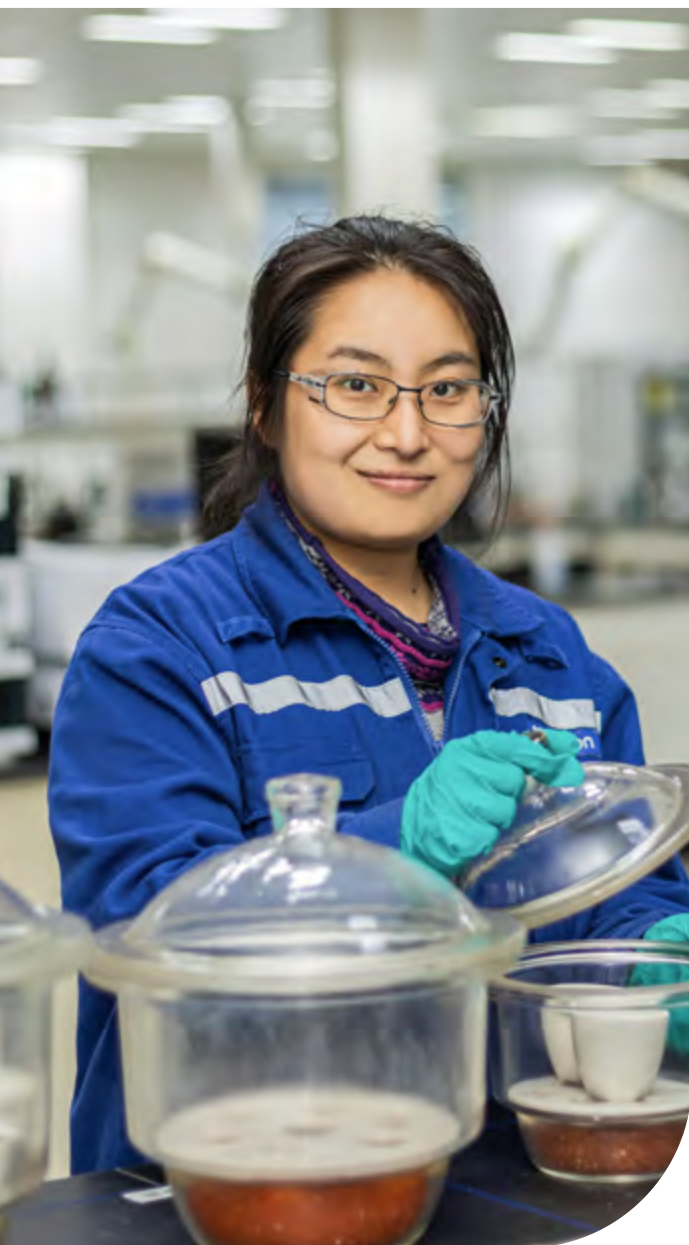
Proposed policies encompass a wide range of areas, including tax, employment issues, safety, and chemicals management. We aim to support policies that are clear, stable, predictable, comprehensive, economically efficient, and designed to achieve societal goals at the lowest cost. Additionally, we support policies that align with and enhance our positions, including our sustainability aspirations.

In the US, we are a member of the American Chemistry Council (ACC). As an active member, we provide input and guidance on trade and environmental policy issues that impact Nouryon and the industry, seeking to ensure strong government policies that rely on sound science and provide certainty to the regulated community.

In Europe, as a member of the European Federation of the Chemical Industry (CEFIC), we have proactively engaged within industry and trade associations to adopt a constructive approach to the EU Green Deal and the EU Chemicals Strategy for Sustainability. We focus on both the risks and opportunities these proposals present for our industry, emphasizing new business models and innovation, and advocating for a value-chain approach.

In China, we are actively involved in advocacy efforts related to the development of Chinese legislation on chemicals management and a cap-and-trade system for carbon emissions. We are a member of the China Petroleum and Chemical Industry Federation (CPCIF) and have engaged in regulatory advocacy, particularly concerning environmental protection and safety. Recently, we collaborated with CPCIF to include the China Organic Peroxide Safety Group, promoting safety excellence and sustainability best practices. Additionally, one of our regional leaders has served as a Board Director of the Association of International Chemical Manufacturers (AICM) since 2023, and a Sponsor Director of the Responsible Care Committee (RCC) of AICM.





Our Memberships

GRI 2-28

Americas

American Chemistry Council (ACC); American Cleaning Institute (ACI); Council of Producers & Distributors of Agrotechnology (CPDA); American Coatings Association (ACA); Texas Chemistry Council (TCC); Association of Water Treaters (AWT); American Composites Manufacturing Organization (ACMA); Chemistry Industry Association of Canada (CIAC); Brazilian Association of the Chemical Industry (ABIQUM).

Asia

China Petroleum and Chemical Industry Federation (CPCIF); Association for International Chemical Manufacturers in China (AICM); EU Chamber of Commerce in China (EUCCC); American Chamber of Commerce in Shanghai (AmCham Shanghai); China Cleaning Industry Association; Ningbo Petrochemical and Chemical Industry Association; Taizhou Energy Saving Technology Development Association; Suzhou Society of Environmental Science; Suzhou Chemical Industry Association; Singapore International Chamber of Commerce (SICC).

Europe

European Federation of the Chemical Industry (CEFIC); European Committee of Organic Surfactants and their Intermediates (CESIO); European Biocidal Products Forum (EBPF); Association for the German Chemical Industry (VCI); Association of the Dutch Chemical Industry (VNCI); Confederation of Netherlands Industry and Employers (VNO-NCW); Dutch Association for Energy, Environment and Water (VEMW); Samenwerkende Bedrijven Eemsmond (SBE – "Cooperation of businesses in the Eemsmond area"); Association for Innovation and Chemical Industries in Sweden (IKEM); Chemical Industry Federation of Finland.

Nouryon executives holding board-level positions with trade associations include:

- **Larry Ryan**, our President, serves as a board member of the ACC.
- **Johan Landfors**, our Chief Technology Officer, Executive Vice President Strategy and Asset Planning and President Europe, serves as a board member of CEFIC.
- **Egbert Henstra**, our Senior Vice President Global Transformation and President Netherlands, serves as a board member of VNCI.
- **Suzanne Carroll**, our Senior Vice President, Consumer and Life Sciences, serves as a board member of ACI.
- **Ann Lindgärde**, our Senior Vice President, Renewable Fibers, serves as a board member of IKEM.
- **Marcus van Tilborg**, our Vice President, Operations APAC, serves as Vice President of AICM.



5.4 Governance

GRI 2-9, GRI 2-10, GRI 2-11, GRI 2-14, GRI 2-17, GRI 2-18

Nouryon's Board of Directors and Leadership Team jointly oversee our Company's sustainability performance, including setting sustainability targets and monitoring progress. Several committees support the Board in fulfilling its duties:

- **The Corporate Responsibility Committee** provides Board-level oversight on sustainability, health, safety and environmental (HSE) matters, product quality, social policies, and programs, including inclusion and diversity, and other reputational issues.
- **The Audit Committee** oversees the integrity of our financial statements, internal controls over financial reporting, risk management, cybersecurity, tax, and ethical conduct.
- **The Compensation Committee** manages the compensation of key employees and other aspects of the Company's total rewards philosophy and strategy.
- **The Nominating & Corporate Governance Committee** recommends nominations for Board membership and establishes corporate-governance practices, ensuring the Board has the necessary expertise and diversity in terms of experiences, qualifications, knowledge, abilities, gender, age, and ethnicity.

Charlie Shaver serves as the Chairman of the Board and Chief Executive Officer. His dual role, backed by extensive experience in the chemical industry, fosters a unified leadership structure and enables swift strategic decision-making. Out of the 12 members of the Board of Directors, 11 are independent members.⁵³

Together with our Risk Management Committee, the Board is the highest governance body involved in risk management. The Board is regularly updated on strategic priorities and initiatives and receives quarterly updates on our sustainability progress.

In 2024, the Board received briefings from internal experts on areas including our global corporate strategy, business performance, sustainability progress, capital allocation, enterprise risk management, cybersecurity, and talent acquisition. The Audit Committee also received additional briefings on tax matters, internal audit, risk management, and internal controls. The Board of Directors conducts an annual self-evaluation process in which Directors complete a survey on the Board's performance and effectiveness through interviews with the General Counsel. These anonymous evaluations are reviewed by the Nominating & Corporate Governance Committee and discussed with the Board. More information about Nouryon's Board and its Committees is available on our website.

The implementation of our sustainability approach is a collaborative effort involving Nouryon's Corporate Sustainability team and experts across our businesses and functions. To reinforce our sustainability governance, we engage both internal and external auditors and conduct an annual review of our policies, incorporating internal assessments and external consultations.

Sustainability progress is tracked in our Company dashboard and applies to all businesses and functions.



⁵³ Definition of independent determined pursuant to the rules and guidance set forth under NYSE guidance.

GRI 2-11, GRI 2-13

Our leadership team is comprised of a diverse, highly experienced group with an average of approximately 30 years of industry experience. More about our [Company leadership team](#) is available on [Nouryon.com](#). Leaders with areas of focus related to our sustainability approach and performance are highlighted here.



[Charlie Shaver](#)

Chairman and Chief Executive Officer, overseeing all sustainability-related responsibilities.



Sustainable product offerings to customers for our three business segments are overseen by our President, [Larry Ryan](#).



[Sean Lannon](#)

Executive Vice President, Chief Financial Officer, oversees all financial aspects of Nouryon, including reporting, planning, treasury and tax, while also providing oversight of Enterprise Risk Management.



Governance matters, including with respect to our Board, our Delegation of Authority policy, Cybersecurity, and Executive Compensation, are the responsibility of our Executive Vice President, Business Affairs, General Counsel and Corporate Secretary, [Michael Finn](#).



Rajeev Rao, Senior Vice President, Corporate Development, works closely with our businesses to develop and execute our M&A and growth strategies, including assessing sustainability related opportunities and risks.



Operational and environmental safety and sustainability and sourcing are managed directly by the Integrated Supply Chain (ISC) function, under the responsibility of Senior Vice President and Chief ISC Officer, [Paresh Bhakta](#). This includes overseeing our safety performance, GHG emissions and energy use, sourcing raw materials, eco-efficiency program, and water-management strategy, which ensures that our sustainability performance is supported at all our manufacturing sites and throughout our supply chain.



[Johan Landfors](#) is Chief Technology Officer and Executive Vice President, Strategy & Asset Planning and President of Europe. He oversees the Company's strategy process to ensure our business plan is aligned with sustainability and financial targets, including carbon management initiatives and goals. He is also responsible for our R&D and technology organization, product stewardship, and oversees Nouryon's activities in Europe.



Human Resources, including development and empowerment of our people, is overseen by our Senior Vice President and Chief Human Resources Officer, [Tift Shepherd](#). In addition, she shares executive sponsorship of our Nouryon Women's Network with Vivi Hollertt.



Senior Vice President South America and Global Carbon Business Strategy Eduardo Nardinelli leads Nouryon's globally coordinated strategic planning to meet our GHG emission reduction goals.



Jason Thorne, Senior Vice President Integrated Business Planning and Commercial Services, is responsible for customer experience, including providing our customers with supply reliability, ensuring rapid customer response and reducing logistical complexities.



Nouryon's global sustainability strategy is overseen by Vice President, Chief Sustainability Officer, [Vivi Hollertt](#). Vivi shares executive sponsorship of our Nouryon Women's Network with Tift Shepherd.



Sustainable Sourcing is managed by our Vice President and Chief Procurement Officer, Simone Salz.

5.5 Risk Management

GRI 2-12, GRI 2-13

Effective risk management is critical to achieving Nouryon's strategic objectives. We employ an Enterprise Risk Management (ERM) approach to identify potential risks and implement appropriate mitigation actions. This approach enhances decision-making within the Company. Based on the Committee of Sponsoring Organizations of the Treadway Commission (COSO⁵⁴) reference model, our risk management framework encompasses strategic, financial, IT, legal, business continuity, and security components, ensuring ethical and responsible operations. We drive transparency and accountability through continuous monitoring and audits to ensure all mitigating actions are completed.

Our comprehensive ERM approach compels us to evaluate whether we are effectively minimizing risks and capitalizing on growth opportunities, including those related to sustainability. It empowers us to identify and manage strategic, operational, financial, and compliance risks, including sustainability-related risks and opportunities, such as those related to climate. This approach shapes our operations and strengthens our culture of ethical and sound decision-making. It also enhances the effectiveness and efficiency of our operations, accurate financial reporting, and compliance with relevant laws and regulations. Collectively, these aspects reinforce Nouryon's reputation and our capacity to be a consistently reliable business partner.

The ultimate responsibility for oversight of Risk Management and Compliance lies with Nouryon's Board. Our ERM and internal control activities are organized into three lines of defense:

- **First line:** All business and operations managers. They are responsible for owning and managing risk, which includes identifying and mitigating risks.

- **Second line:** Oversight functions such as Internal Control, Legal and Compliance, and the Risk Committee, support business and operations management. They help ensure that the risks are identified, properly mitigated, and that monitoring control procedures operate as intended. Additionally, the second line oversees the complete risk program.
- **Third line:** Internal Audits provide an independent and objective assessment to enhance the effectiveness of governance, risk management, and internal controls. This includes evaluating the leadership of business and operations, and how oversight functions manage and control risks.

Identifying and Mitigating Risks to Leverage Growth Opportunities

Our risk management capabilities and resources are designed to align closely with Nouryon's strategic objectives. The ERM process incorporates sustainability risks with a two-to-five-year outlook. We review sustainability-related risks and opportunities at three levels: (1) macro (generic, including political, regulatory, legal, sociocultural, ecological, demographic, technological, and economic environments); (2) meso (industry); and (3) micro (Nouryon). These evaluations encompass strategic, financial compliance, and operational aspects.

Cybersecurity

Cybersecurity is a crucial component of our overall risk management program, aimed at managing cybersecurity risks. Our cybersecurity program protects all Nouryon systems, connected devices, technologies, operating environments, users, and data. Managing risks to these elements is achieved through formal processes for risk

discovery, quantification, treatment, tracking, and reporting. Formal processes identify and manage cybersecurity risks to limit the negative potential impacts. Our program is based on industry guidance, and we annually achieve multiple independent validations, including penetration tests, risk assessments, and external audits.

Our Chief Information Security Officer, supported by a dedicated team of cybersecurity specialists, continuously works to bolster Nouryon's digital defenses and cybersecurity infrastructure. They focus on enhancing security operations and perpetually improving the Company's ability to ensure uninterrupted operations and business continuity. This is achieved through robust monitoring, targeted technology enhancements, and frequent employee awareness campaigns, including internal testing.



54 COSO is a joint initiative of organizations that provides comprehensive frameworks and guidance on enterprise risk management. For more information: <https://www.coso.org>.

Task Force on Climate-related Financial Disclosures (TCFD): Our Approach to Assessing Climate-Related Risks and Opportunities

Climate change is one of the most pressing challenges of our time, and the transition to a net-zero-carbon economy presents both significant risks and opportunities. In 2021, we conducted a comprehensive qualitative analysis using the TCFD framework, marking the beginning of our journey to integrate climate scenario analysis into our reporting and planning processes. We anticipate that the guidance and tools will evolve over time. In line with the Corporate Sustainability Reporting Directive requirements, we are in the process of completing a new Double Materiality Assessment, incorporating the results from the TCFD analysis.

Our qualitative analysis addressed both transitional and physical risks and opportunities, referencing leading climate models and scenarios. We used publicly available data from the peer-reviewed climate models of the United Nations Intergovernmental Panel on Climate Change (IPCC). By considering a variety of scenarios, we identified potential risks and opportunities for the Company. We assessed these potential risks over short, medium, and long-term time horizons, spanning our entire value chain – upstream, downstream, and within our operations. The results of this analysis are detailed below and throughout this report. Additionally, we provide a summary table of our alignment with the TCFD framework.

Climate-Related Risk Analysis Findings

In 2021, Nouryon conducted its first comprehensive qualitative scenario analysis with the support of Environmental Resources Management (ERM consulting firm). The insights gained from this scenario analysis enhance our understanding of significant climate-related risks and opportunities, aiding in planning, resource allocation, investment, and management decisions.

Through a series of workshops, we delved into climate-related impacts, categorized according to TCFD guidance: Transition Risks (Market, Policy, Technology, Reputation) and Physical Risks (Acute, Chronic).

Physical Scenario: Nouryon's climate-related scenario analysis utilized publicly available data from the IPCC's peer-reviewed climate models to extract indicators for future climate exposure across various site locations. For this analysis, we considered the SSP3-RCP7 scenario, which depicts a pessimistic outlook with a 4°C warming by 2100 and unfavorable global demographic projections for climate mitigation and adaptation efforts. Geographic system modeling was employed to extract climate indicators for each site, warehouse, or port.

Time Horizon: The analysis projected data and trends up to 2050, providing a long-term perspective to incorporate potential risks and opportunities into Nouryon's risk management strategy.

Area of Organization: The analysis focused on critical locations essential to Nouryon's key operations, including three priority outplant warehouses and six global ports vital for the transport and storage of our products. The scenario analysis encompassed all facets of Nouryon's business, including products and services, operations, and the value chain.

Through research and engagement, eight priority risk topics were identified: 1) carbon pricing mechanisms; 2) regulation of end markets; 3) raw material prices and availability; 4) high investment costs of transition technology; 5) flooding; 6) hurricanes; 7) water stress; and 8) extreme temperatures. Additionally, three priority climate-related opportunity areas were identified: 1) products and services that help customers achieve climate goals; 2) new market opportunities; and 3) resource efficiency with a focus on the circular economy.

Insights Informing Our Business Strategy

We integrate climate risks and opportunities into our business strategy, particularly when exploring new market opportunities and aligning investments with the transition to a low-carbon economy. This includes expanding sales into renewable energy markets, such as cables, wind turbines, and developing crop solutions to enhance yields and combat soil depletion.

A notable example is our amine-related products, such as piperazine, used in carbon capture. Piperazine/MDEA formulations are recognized as preferred solutions for capturing carbon dioxide in industrial applications, presenting a significant business opportunity. For financial planning, we collaborate with our customers to align future production with the growing demand for piperazine and amine-related products. Piperazine helps our customers capture several million metric tons of carbon annually, with planning focused on short and medium-term horizons.

We strategically invest in Eco-Premium Solutions, focusing on product development, facility investments, and production capabilities to meet market demand. This includes considering low carbon and emission reduction policies that impact our customers and influence potential market demand. Additionally, raw material sourcing plans are integrated into these market strategies to ensure sustainability and efficiency.

Nouryon TCFD Index and Additional Information

| Core Element | Recommended Disclosures | Reference to Nouryon 2024 Sustainability Report | Reference to Nouryon's CPD Climate Change 2024 Questionnaire ⁵⁵ |
|--|--|--|---|
| Governance Disclose the organization's governance around climate-related risks and opportunities. | a) Describe the Board's oversight of climate-related risks and opportunities. | 5.4 Governance 5.5 Risk Management | Governance C4.1, C4.1.1, C4.1.2 |
| | b) Describe management's role in assessing and managing climate-related risks and opportunities. | 5.4 Governance 5.5 Risk Management | Governance C4.3.1 |
| Strategy Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material. | a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long-term. | Included in our TCFD project as mentioned in 2.6 Reporting Sustainability | Business strategy C5.2, C5.3, C5.3.1, C5.3.2 |
| | b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning. | | Disclosure of risks and opportunities C3.1, C3.1.1, C3.1.2 |
| | c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario. | 2.1 Our Targets 2.2 Alignment with and Supporting UN Sustainability Development Goals 2.5 Stakeholder Materiality Included in our TCFD project as mentioned in: 2.6 Reporting Sustainably 3.1 Mitigating Climate Change | Business Strategy C5.1, C5.1.1, C5.1.2, C5.2, C5.3, C5.3.1, C5.3.2 |
| Risk Management Disclose how the organization identifies, assesses, and manages climate-related risks. | a) Describe the organization's processes for identifying and assessing climate-related risks. | 5.4 Governance 5.5 Risk Management | Identification, assessment, and management of dependencies, impacts, risks, and opportunities C2.2, C2.2.1, C2.2.2, C2.2.7 Disclosure of risks and opportunities C3.1.1 |
| | b) Describe the organization's processes for managing climate-related risks. | 5.4 Governance 5.5 Risk Management | Identification, assessment, and management of dependencies, impacts, risks, and opportunities C2.2.2 |
| | c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management. | 5.4 Governance 5.5 Risk Management | Identification, assessment, and management of dependencies, impacts, risks, and opportunities C2.2.2 |
| Metrics and Targets Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material. | a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process. | 2.1 Our Targets 3.1 Mitigating Climate Change 3.3 Eco-Efficiency Energy and Circularity | Identification, assessment, and management of dependencies, impacts, risks, and opportunities C2.2 Environmental performance – Climate Change C7.53, C7.53.1 |
| | b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks. | 2.1 Our Targets 3.1 Mitigating Climate Change 3.3 Eco-Efficiency Energy and Circularity 3.6 Environmental Metrics | Environmental performance – Climate Change C7.1 Provide your base year and base year emissions C7.5 Emission Data C7.6, C7.7, C7.8, C7.45 For additional information on historical emissions and breakdown: - History: C7.6 (S1), C7.7.4 (S2), C7.8.1 (S3) - Breakdown: C7.15, C7.15.1, C7.16, C7.17, C.17.1, C7.19, C7.20, C7.20.1, C7.21, C7.22, C7.23 |
| | c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets. | 2.1 Our Targets 3.1 Mitigating Climate Change 3.3 Eco-Efficiency Energy and Circularity | Environmental performance – Climate Change C7.53, C7.53.1 |

⁵⁵ 2024 CDP climate change questionnaire was based on 2023 operations.

Closing Word from Our Chief Sustainability Officer



Thank you for reading about Nouryon's commitment to sustainable growth and the initiatives we implemented in 2024. Our achievements exemplify the strategic business case for sustainability, which answers customers demand for sustainable innovations, enhances operational efficiencies, and unlocks new market opportunities, thereby ensuring sustainable value creation for all stakeholders.

This progress is made possible through collaboration with our partners, including our valued customers – whose expectations drive us to continuously enhance and innovate our solutions – suppliers, and many others. Our employees play a pivotal role in this journey, demonstrating unwavering dedication and expertise in advancing sustainable solutions that benefit both customers and society.

Each year, we take pride in presenting the tangible data and case studies that underpin our focus areas and progress. We invite you to explore the fact sheets and tables on the following pages, which offer a quantitative overview of our ongoing sustainability efforts.

For a more in-depth understanding of Nouryon, we encourage you to visit Nouryon.com. There, you will discover extensive information detailing our commitment to a sustainable future, as well as more about our product offerings and the markets we serve.

Once again, thank you for your interest in Nouryon. We are privileged to share our sustainability journey with you. Whether you engaged with our 2024 Sustainability Report as a customer, supplier, employee, candidate, business partner, or community stakeholder, we take pride in being your partner in essential solutions for a sustainable future.

Thank you and best regards,

Vivi Hollertt
Vice President, Chief Sustainability Officer



Fact Sheet^{56,57}

Environment (1/3)

| | Unit | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Progress toward Target ⁵⁸ |
|--|--|-------|-------|-------|--------|--------|---------|--------------------------------------|
| Company Carbon Footprint | | | | | | | | |
| Total absolute direct and indirect emissions market-based (Scopes 1 and 2) | K Metric Tons CO ₂ e | 1,530 | 1,519 | 1,499 | 1,537 | 1,327 | 1,238 | -19% |
| Carbon intensity (Scopes 1 and 2 combined) | Kg CO ₂ e /Metric Ton of production | 415 | 424 | 404 | 421 | 394 | 347 | n/a |
| Direct absolute GHG emissions (Scope 1) ⁵⁹ | K Metric Tons CO ₂ e | 603 | 624 | 642 | 663 | 585 | 598 | n/a |
| Direct GHG emissions (Scope 1) intensity | Kg CO ₂ e /Metric Ton of production | 164 | 174 | 173 | 182 | 174 | 168 | n/a |
| Indirect GHG emissions market-based (Scope 2) ^{60,61} | K Metric Tons CO ₂ e | 927 | 895 | 857 | 874 | 742 | 640 | n/a |
| Indirect GHG emissions market-based (Scope 2) intensity | Kg CO ₂ e /Metric Ton of production | 251 | 250 | 231 | 239 | 220 | 179 | n/a |
| Indirect GHG emissions location-based (Scope 2) ⁶¹ | K Metric Tons CO ₂ e | 1,276 | 1,197 | 1,201 | 1,255 | 1,252 | 1,156 | n/a |
| Calculated Scope 3 total absolute GHG emissions | K Metric Tons CO ₂ e | | | | | | 5,059 | n/a |
| Total absolute GHG emissions (Scope 1, Scope 2 market-based, and Scope 3) | K Metric Tons CO ₂ e | | | | | | 6,297 | n/a |
| Direct emissions, covered by emissions-limiting regulations | % of direct emissions | 22% | 24% | 25% | 26% | 24% | 24% | n/a |
| Biogenic CO ₂ emissions | K Metric Tons CO ₂ e | 1,347 | 1,561 | 1,604 | 1,723 | 1,643 | 2,204 | n/a |
| Energy Management | | | | | | | | |
| Total energy consumption ⁶² | Mln GJ | 30.4 | 30.7 | 32.7 | 33.4 | 31.5 | 33.5 | n/a |
| Total energy consumption intensity ⁶² | GJ/Metric Ton of production | 8.24 | 8.59 | 8.81 | 9.15 | 9.35 | 9.38 | n/a |
| Renewable energy consumed ⁶³ | % | 30% | 38% | 38% | 34% | 32% | 35% | n/a |
| Renewable electricity consumed | % | 36% | 48% | 49% | 39% | 42% | 48% | n/a |
| Energy from grid electricity | % | 61% | 61% | 60% | 59% | 61% | 61% | n/a |
| Energy consumption from unbundled RECs ⁶⁴ | MWh | | | | 40,311 | 59,554 | 835,988 | n/a |
| Carbon offsets purchased ⁶⁵ | Metric Tons CO ₂ e | | | | 200 | 127 | - | n/a |
| Total self-generated electricity | Mln GJ | - | - | - | - | - | - | n/a |

56 For all figures, minor corrections to historical data may be made to improve accuracy or based on methodology updates. Safety data from acquired Polish sites was included starting in 2024. In our internal reporting procedures, we recalculate base year data in cases where the change is material (5% or more).

57 All metrics are calculated according to our [Reporting Principles 2024](#).

58 Percentage change 2019-2024.

59 Scopes 1 and 2 include process emissions from other GHG (CH₄, N₂O, and Hydrofluorocarbons) and their CO₂ equivalents.

60 Including RECs retired on our behalf for utility supplied renewable electricity and other contractual instruments from utilities and other partners.

61 Scope 2 market and location-based CO₂e emissions do not include emissions from CH₄ and N₂O where IEA national grid factors or AIB residual grid factors are applied, except for the US.

62 Energy consumption is expressed in mln GJ which is the sum of the actual consumed by the sites.

63 Renewable-energy data include renewable fuels such as biomass, purchased renewable steam, and renewable electricity from solar, wind, and hydropower.

64 RECs retired on our behalf for utility supplied renewable electricity and other contractual instruments from utilities and other partners.

65 Carbon offsets purchased to compensate for Scope 1 emissions in our carbon neutral sites. Offsets are not included in our emissions inventory (Scopes 1, 2, or 3). These offsets have been certified by the Verified Carbon Standard (VCS), administered by Verra, and retired. For more information, see www.verification.org. Offsets are applied to prior year emissions.

Environment (2/3)

| | Unit | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Progress toward Target ⁶⁶ |
|---|--|---------|---------|---------|---------|---------|---------|--------------------------------------|
| Air Quality | | | | | | | | |
| NOx absolute emissions ⁶⁷ | Metric Tons | 1,080 | 1,066 | 1,154 | 1,159 | 983 | 1,079 | n/a |
| NOx emission intensity | Kg/Metric Ton of production | 0.29 | 0.30 | 0.31 | 0.32 | 0.29 | 0.30 | n/a |
| SOx absolute emissions | Metric Tons | 3,533 | 3,135 | 3,288 | 3,333 | 3,446 | 3,342 | n/a |
| SOx emission intensity | Kg/Metric Ton of production | 0.96 | 0.88 | 0.89 | 0.91 | 1.02 | 0.94 | n/a |
| VOC absolute emissions | Metric Tons | 669 | 1,172 | 1,938 | 1,792 | 1,853 | 1,717 | n/a |
| VOC absolute emission intensity | Kg/Metric Ton of production | 0.18 | 0.33 | 0.52 | 0.49 | 0.55 | 0.48 | n/a |
| Hazardous air pollutants | Metric Tons | | | 374 | 357 | 408 | 593 | n/a |
| Hazardous air pollutants intensity | Kg/Metric Ton of production | | | 0.10 | 0.10 | 0.12 | 0.17 | n/a |
| Emission to Water – Chemical Oxygen Demand (COD) | | | | | | | | |
| COD absolute emissions to surface water | Metric Tons | 845 | 768 | 896 | 854 | 836 | 1,442 | n/a |
| COD emission intensity to surface water | Kg/Metric Ton of production | 0.23 | 0.21 | 0.24 | 0.23 | 0.25 | 0.40 | n/a |
| COD absolute emissions to external wastewater treatment | Metric Tons | 15,257 | 16,515 | 17,917 | 18,447 | 15,380 | 14,172 | n/a |
| COD emission intensity to external wastewater treatment | Kg/Metric Ton of production | 4.13 | 4.60 | 4.81 | 5.04 | 4.56 | 3.97 | n/a |
| Water Management | | | | | | | | |
| Absolute freshwater intake | 1,000 m ³ | 134,868 | 147,270 | 161,652 | 153,407 | 151,543 | 157,192 | n/a |
| Freshwater intake intensity | m ³ /Metric Ton of production | 36.5 | 41.1 | 43.4 | 41.9 | 44.9 | 44.0 | n/a |
| Intake in regions with high water stress | % | 2.3% | 2.0% | 1.6% | 2.0% | 2.0% | 1.8% | n/a |
| Absolute freshwater consumption ⁶⁸ | 1,000 m ³ | 15,427 | 14,786 | 14,349 | 14,497 | 14,295 | 15,591 | n/a |
| Freshwater consumption ⁶⁸ intensity | m ³ /Metric Ton of production | 4.18 | 4.12 | 3.85 | 3.96 | 4.24 | 4.36 | 4% |
| Intake in regions with high water stress | % | 19% | 20% | 18% | 18% | 21% | 18% | n/a |
| Waste Management | | | | | | | | |
| Total absolute waste | Metric Tons | 62,587 | 59,449 | 63,243 | 68,959 | 56,393 | 56,986 | n/a |
| Total waste intensity | Kg/Metric Ton of production | 17.0 | 16.6 | 17.0 | 18.9 | 16.7 | 16.0 | -6% |
| Absolute non-hazardous waste | Metric Tons | 45,143 | 41,718 | 42,146 | 44,652 | 35,368 | 37,065 | n/a |
| Non-hazardous waste intensity | Kg/Metric Ton of production | 12.2 | 11.6 | 11.3 | 12.2 | 10.5 | 10.4 | n/a |
| Absolute hazardous waste | Metric Tons | 17,444 | 17,731 | 21,097 | 24,306 | 21,025 | 19,921 | n/a |
| Absolute hazardous waste to landfill | Metric Tons | 417 | 465 | 268 | 548 | 193 | 350 | n/a |
| Hazardous waste reused | % | 24% | 28% | 33% | 24% | 26% | 24% | n/a |

⁶⁶ Percentage change 2019-2024.

⁶⁷ NOx values have been updated based on updated emission factors for all years back to 2019.

⁶⁸ Total freshwater consumption (excluding once through cooling-water intake).

Environment (3/3)

| | Unit | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Progress toward Target ⁶⁹ |
|--|---------------------------------|-------|-----------------|-----------------------|--------------------|-----------------------|-----------------------|--------------------------------------|
| Production | | | | | | | | |
| Nouryon | K Metric Tons | 3,691 | 3,587 | 3,725 | 3,658 | 3,375 | 3,573 | n/a |
| Sustainable Sourcing | | | | | | | | |
| Suppliers screened using Risk IQ ⁷⁰ | % of spend | | | 96% | 94% | 90% | 93% | n/a |
| Suppliers measured on EcoVadis performance ⁷¹ | % of spend | | | 50% | 60% | 66% | 74% | n/a |
| Suppliers acknowledging our Business Partner Code of Conduct ⁷² | % of spend | | | 98% | 99.7% | 99.8% | 99.2% | n/a |
| Biobased raw materials (portion of organic materials) | % mass of organic raw materials | 20% | 21% | 22% | 22% | 20% | 23% | n/a |
| Management Systems⁷³ | | | | | | | | |
| | | | Per April, 2021 | Per February 28, 2022 | Per March 23, 2023 | Per December 31, 2023 | Per December 31, 2024 | |
| Manufacturing sites with ISO-14001/RC-14001 certifications | % | | 77% | 84% | 98% | 95% | 94% | n/a |
| Manufacturing sites with ISO-9001 certifications | % | | | 88% | 88% | 82% | 83% | n/a |

⁶⁹ Percentage change 2019-2024.

⁷⁰ In terms of all external spend (product, non-product, energy, logistics, etc.) The Risk IQ tool considers industry segment risk, country risk and EcoVadis scores from the complete EcoVadis database.

⁷¹ Based on policies, actions, results. For more information: <https://ecovadis.com/>.

⁷² Tracked by acceptance of a Nouryon purchase order or a signed Nouryon contract.

⁷³ Our ISO certification percentage metric includes sites that have been in our portfolio for one year. This is to allow sufficient time required for activities reviewed by the certification process (e.g., pre-start up safety reviews, management reviews, production, and/or internal audits if relevant). Any exceptions will be identified.

Social

| | Unit | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|--------------------------|--------|----------------|-----------------------|--------------------|-----------------------|-----------------------|
| Workforce Data⁷⁴ | | | | | | | |
| Global headcount Nouryon employees | # | 10,389 | 9,730 | 7,771 ⁷⁵ | 7,909 | 8,236 | 8,175 |
| Female workforce | % | 24% | 23% | 25% | 25% | 25% | 25% |
| Female mid-level managers and above ⁷⁶ | % | 25% | 24% | 24% | 23% | 23% | 26% |
| Employee turnover rate (voluntary and involuntary) | % | 17% | 14% | 14% | 15% | 13% | 12% |
| Employee Trainings⁷⁷ | | | | | | | |
| Employees who have completed Code of Conduct (incl Anticorruption) training | % | | | | | 100% | 98% |
| Employees who have completed Code of Conduct (incl Anticorruption) training | # | | | | | 3,893 | 4,793 |
| Employees undertaking Respectful Workplace training | % | | | | | | 98% |
| Employees undertaking Respectful Workplace training | # | | | | | | 4,905 |
| Safety⁷⁸ | | | | | | | |
| Total Recordable Incident Rate – Nouryon Employees, temporary workers and contractors | Per 200,000 hours worked | 0.26 | 0.23 | 0.17 | 0.30 | 0.25 | 0.29 |
| Lost Time Incident Rate – Nouryon Employees, temporary workers and contractors | Per 200,000 hours worked | 0.07 | 0.13 | 0.09 | 0.16 | 0.07 | 0.10 |
| Management Systems | | | | | | | |
| | | | Per April 2021 | Per February 28, 2022 | Per March 23, 2023 | Per December 31, 2023 | Per December 31, 2024 |
| Manufacturing sites with OHSAS-18001/RC-18001 and ISO45001 certifications | % | | 39% | 39% | 44% | 37% | 40% |

⁷⁴ Workforce data prior to 2021 includes Nobian employees (Nobian's separation from Nouryon occurred in 2021). 2021 workforce data excludes Nobian employees.

⁷⁵ Headcount and similar metrics may differ slightly, depending on exact collection date, due to timing of reporting schedules, divestments, and acquisitions, as well as regular workforce fluctuations.

⁷⁶ Mid-level managers are defined as the management paygrade below the first senior executive level. Source data, December 2024.

⁷⁷ Assigned employees include office based employees and site management.

⁷⁸ Safety data from acquired Polish sites was included starting in 2024. See our [Reporting Principles 2024](#) for additional explanation.

Governance

| | Unit | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | | Per December 31, 2019 | Per December 31, 2020 | Per December 31, 2021 | Per December 31, 2022 | Per December 31, 2023 | Per December 31, 2024 |
| Board | | | | | | | |
| Directors | # | 9 | 10 | 11 | 11 | 12 | 12 |
| Average director tenure (years) | # | 1 | 2 | 2 | 3 | 4 | 4 |
| Independent directors | # | 8 | 9 | 10 | 10 | 11 | 11 |
| Independent directors | % | 89% | 90% | 91% | 91% | 92% | 92% |
| Board Diversity | | | | | | | |
| | | Per December 31, 2019 | Per December 31, 2020 | Per December 31, 2021 | | | |
| Women on the Board | # | 0 | 1 | 3 | 3 | 3 | 3 |
| Women on the Board | % | - | 10% | 27% | 27% | 25% | 25% |
| Board members of racial/ethnic minority | # | 0 | 0 | 1 | 1 | 1 | 1 |
| Board members of racial/ethnic minority | % | - | - | 9% | 9% | 8% | 8% |
| Board diversity | % | - | 10% | 36% | 36% | 33% | 33% |
| Board Coverage of Sustainability-related Issues | | | | | | | |
| | | Quarterly | Quarterly | Quarterly | Quarterly | Quarterly | Quarterly |
| Frequency of Board updates on sustainability-related issues | | | | | | | |
| Board oversight of climate strategy | Y/N | Y | Y | Y | Y | Y | Y |
| Policies and Statements | | | | | | | |
| Anti-corruption, anti-bribery | Y/N | Y | Y | Y | Y | Y | Y |
| Animal Testing Policy | Y/N | N | N | Y | Y | Y | Y |
| Business Partner Code of Conduct, including suppliers | Y/N | Y | Y | Y | Y | Y | Y |
| Code of Conduct, anti-discrimination, anti-harassment | Y/N | Y | Y | Y | Y | Y | Y |
| Conflict Minerals Statement and Policy | Y/N | Y | Y | Y | Y | Y | Y |
| Health, Safety, Environment and Security, including product stewardship | Y/N | N | N | N | Y | Y | Y |
| Palm Oil Statement | Y/N | N | N | Y | Y | Y | Y |
| Sensitive Country Policy | Y/N | Y | Y | Y | Y | Y | Y |
| SpeakUp! and Non-Retaliation Policy | Y/N | Y | Y | Y | Y | Y | Y |
| Sponsorship and Charity Policy | Y/N | Y | Y | Y | Y | Y | Y |
| Sustainability Policy | Y/N | N | N | N | N | N | Y |
| Sustainable Procurement Policy | Y/N | N | N | N | N | Y | Y |
| Sustainable Procurement Supplier Engagement Policy | Y/N | N | N | N | N | N | Y |
| Board members that the Code of Conduct/Anti-corruption policies have been communicated to ⁷⁹ | % | | | | | | 100% |
| Board members that the Code of Conduct/Anti-corruption policies have been communicated to ⁷⁹ | # | | | | | | 12 |

⁷⁹ GRI 205-2 aligned: 3 Board members in Europe, 9 board Members in the United States.

Sustainable Accounting Standards Board Index

Sustainable Industry Classification System® (SICS®) RT-CH | Sector: Resource Transformation| Industry: Chemicals

| Topic | Metric ⁹⁰ | Code | Page |
|--|--|--------------|--------|
| Greenhouse gas emissions | Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations | RT-CH-110a.1 | 50 |
| | 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 | 23, 27 |
| Air quality | Air emissions of the following pollutants: (1) NOx (excluding N2O), (2) SOx, (3) volatile organic compounds (VOCs), and (4) hazardous air pollutants (HAPs) | RT-CH-120a.1 | 51 |
| Energy management | (1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable, and (4) total self-generated energy | RT-CH-130a.1 | 50 |
| Water management | (1) Total water withdrawn and (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress | RT-CH-140a.1 | 51 |
| | Number of incidents of non-compliance associated with water quality permits, standards, and regulations | RT-CH-140a.2 | zero |
| | Description of water management risks and discussion of strategies and practices to mitigate those risks | RT-CH-140a.3 | 33 |
| Hazardous waste management | Amount of hazardous waste generated; percentage recycled | RT-CH-150a.1 | 51 |
| Community relations | Discussion of engagement processes to manage risks and opportunities associated with community interests | RT-CH-210a.1 | 62 |
| 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 | 96 |
| | Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks | RT-CH-320a.2 | 54 |
| Product design for use-phase efficiency | Revenue from products designed for use-phase resource efficiency | RT-CH-410a.1 | 6, 38 |
| Safety and environmental stewardship of chemicals | (1) Percentage of products that contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances, (2) percentage of such products that have undergone a hazard assessment | RT-CH-410b.1 | 47 |
| | Discussion of strategy to (1) manage chemicals of concern and (2) develop alternatives with reduced human and/or environmental impact | RT-CH-410b.2 | 48 |
| Genetically modified organisms | Percentage of products by revenue that contain genetically modified organisms (GMOs) | RT-CH-410c.1 | 84 |
| 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 | 86 |
| Operational safety, emergency preparedness, and response | Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR) | RT-CH-540a.1 | 61 |
| | Number of transport incidents | RT-CH-540a.2 | 61 |
| Production by reportable segment | | RT-CH-000.A | 7 |

GRI Standards Disclosure Summary

GRI Universal Disclosure Summary

| GRI Disclosure | GRI Disclosure Description | Page(s) in this Index |
|----------------|---|-----------------------|
| 2-3 | Reporting period, frequency and contact point | 102 |
| 2-5 | External assurance | 102 |
| 2-6 | Activities, value chain and other business relationships | 4 |
| 2-7 | Employees | 69 |
| 2-8 | Workers who are not employees | 69 |
| 2-9 | Governance structure and composition | 87 |
| 2-10 | Nomination and selection of the highest governance body | 87 |
| 2-11 | Chair of the highest governance body | 87 |
| 2-13 | Delegation of responsibility for managing impacts | 88 |
| 2-14 | Role of the highest governance body in sustainability reporting | 87 |
| 2-15 | Conflicts of interest | 79 |
| 2-16 | Communication of critical concerns | 81 |
| 2-17 | Collective knowledge of the highest governance body | 87 |
| 2-18 | Evaluation of the performance of the highest governance body | 87 |
| 2-22 | Statement on sustainable development strategy | 6 |
| 2-23 | Policy commitments | 79 |
| 2-24 | Embedding policy commitments | 79 |
| 2-25 | Processes to remediate negative impacts | 80 |
| 2-26 | Mechanisms for seeking advice and raising concerns | 80 |
| 2-27 | Compliance with laws and regulations | 78 |
| 2-28 | Membership associations | 17 |
| 2-29 | Approach to stakeholder engagement | 19 |
| 2-30 | Collective bargaining agreements | 69 |

With reference to the Global Reporting Initiative (GRI) Standards, management of Nouryon has reviewed and approved the GRI reported information. [GRI Requirement 8: Provide a statement of use]. Except where stated otherwise, this report includes data from January 1 through December 31, 2024, which is aligned with our financial reporting period. For additional information contact sustainability@nouryon.com [GRI 2-3 Reporting period, frequency and contact point a. b.] For additional information on our metrics, see the Basis of our Reporting document.

Topic Specific Disclosures

| GRI Disclosure | GRI Disclosure Description | Page(s) in this Index |
|--|---|-----------------------|
| GRI 205: Anti-corruption 2016 | | |
| 3-3 | Management of material topic | 79 |
| 205-2 | Communication and training about anti-corruption policies and procedures | 79 |
| 205-3 | 205-3 Confirmed incidents of corruption and actions taken | 79 |
| GRI 305: Emissions 2016 | | |
| 3-3 | Management of material topic | 12 |
| 305-1 | Direct (Scope 1) GHG Emissions | 12 |
| 305-2 | Energy indirect (Scope 2) GHG Emissions | 12 |
| 305-3 | Other indirect (Scope 3) GHG Emissions | 12 |
| 305-4 | GHG Emission Intensity | 49 |
| 305-5 | Reduction of GHG Emissions | 23 |
| 305-7 | Nitrogen oxides (NOx), Sulfur oxides (Sox) and other significant air emissions | 49 |
| GRI 403: Occupational Health and Safety 2018 | | |
| 3-3 | Management of material topic | 54 |
| 403-1 | Occupational health and safety management system | 55 |
| 403-2 | Hazard identification, risk assessment, and incident investigation | 55 |
| 403-3 | Occupational health services | 54 |
| 403-4 | Worker participation, consultation, and communication on occupational health and safety | 55 |
| 403-5 | Worker training on occupational health and safety | 55, 57 |
| 403-9 | Work-related injuries | 55 |
| 403-10 | Work-related ill health | 55 |
| GRI 416: Customer Health and Safety 2016 | | |
| 3-3 | Management of material topic | 45, 46 |
| 416-1 | Assessment of the health and safety impacts of product and service categories | 45, 46 |
| Nouryon Specific Material Topic: Innovation and Product Development | | |
| | Existing metrics - % R&D Eco-solutions projects | 6, 37 |
| | % biobased raw materials | 83 |

Independent Assurance Statement

ERM Certification and Verification Services Limited ("ERM CVS") was engaged by Nouryon Specialty Chemicals B.V. ("Nouryon") to provide limited assurance in relation to the Selected Information in Appendix A and presented in Nouryon's 2024 Sustainability Report (the "Report").

Engagement summary

| | |
|---|---|
| Scope of our assurance engagement | Whether the Selected Information for 2024 set out in Appendix A is fairly presented in the Report, in all material respects, in accordance with the reporting criteria. Our assurance engagement does not extend to information in respect of earlier periods or to any other information included in the Report. |
| Selected information | See Appendix A |
| Reporting period | 1 st January 2024 – 31 st December 2024 |
| Reporting criteria | <ul style="list-style-type: none">• Nouryon's Reporting Principles, as described here• The GHG Protocol Corporate Accounting and Reporting Standard (WBCSD/WRI Revised Edition 2015) for Scope 1 and Scope 2 GHG emissions• GHG Protocol Scope 2 Guidance (An amendment to the GHG Protocol Corporate Standard (WRI 2015) for Scope 2 GHG emissions• The Corporate Value Chain (Scope 3) Accounting and Reporting Standard (WBCSD/WRI 2011) for Scope 3 GHG emissions |
| Assurance standard and level of assurance | <p>We performed a limited assurance engagement, in accordance with the International Standard on Assurance Engagements ISAE 3000 (Revised) 'Assurance Engagements other than Audits or Reviews of Historical Financial Information' issued by the International Auditing and Assurance Standards Board.</p> <p>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 consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.</p> |
| Respective responsibilities | <p>Nouryon is responsible for preparing the Report and for the collection and presentation of the information within it, and for the designing, implementing and maintaining of internal controls relevant to the preparation and presentation of the Selected Information.</p> <p>ERM CVS' responsibility is to provide conclusions to Nouryon on the agreed scope based on our engagement terms with Nouryon, the assurance activities performed and exercising our professional judgement.</p> |

Our conclusion

Based on our activities, as described below nothing has come to our attention to indicate that the Selected Information for 2024 is not fairly presented in the Report, in all material respects, in accordance with the reporting criteria.

Emphasis of Matter

Without affecting our conclusion, which is not modified, we draw attention to:

- Footnote 40 on page 62 of the Report and the explanation provided by Nouryon relating to the exclusion of an incident from LTI reporting; and
- Footnote 26 on page 50 and Footnote 61 on page 95 of the Report describing Nouryon's Scope 2 GHG emissions reporting.

Our assurance activities

Considering the level of assurance and our assessment of the risk of material misstatement of the Report, a multi-disciplinary team of sustainability and assurance specialists performed a range of procedures that included, but was not restricted to, the following:

- Evaluating the appropriateness of the reporting criteria for the Selected Information;
- Visiting the Nouryon's Head Office in the Netherlands where we interviewed management representatives and relevant staff to understand and evaluate the management systems and processes (including internal review and control processes) used for collecting and reporting the Selected Information;
- Obtaining an understanding of the procedures performed by the internal audit department;
- Reviewing of a sample of qualitative and quantitative evidence supporting the Selected Information at a corporate level;
- Performing an analytical review of the year-end data submitted by all locations included in the consolidated 2024 group data for the Selected Information which included testing the completeness and mathematical accuracy of conversions and calculations, and consolidation in line with the stated reporting boundary;
- Conducting site visits to three Nouryon facilities/production sites in Ningbo (China), Wrocław (Poland) and Jupiá (Brazil) to review source data and local reporting systems and controls;
- Evaluating the conversion and emission factors and assumptions used; and
- Reviewing the presentation of information relevant to the assurance scope in the Report to ensure consistency with our findings.

The limitations of our engagement

The reliability of the Selected Information is subject to inherent uncertainties, given the available methods for determining, calculating or estimating the underlying information. It is important to understand our assurance conclusions in this context.

Our independence, integrity and quality control

ERM CVS is an independent certification and verification body accredited by UKAS to ISO 17021:2015. Accordingly, we maintain a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements. Our quality management system is at least as demanding as the relevant sections of ISQM-1 and ISQM-2 (2022).

ERM CVS applies a Code of Conduct and related policies to ensure that its employees maintain integrity, objectivity, professional competence and high ethical standards in their work. Our processes are designed and implemented to ensure that the work we undertake is objective, impartial and free from bias and conflict of interest. Our certified management system covers independence and ethical requirements that are at least as demanding as the relevant sections of the IESBA Code relating to assurance engagements.

ERM CVS has extensive experience in conducting assurance on environmental, social, ethical and health and safety information, systems and processes, and provides no consultancy related services to Nouryon in any respect.



21 May 2025

London, United Kingdom

ERM Certification and Verification Services Limited

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Appendix A

| Selected Information | Unit of Measurement |
|--|--|
| Direct absolute GHG emissions (Scope 1) | K Metric Tons CO ₂ e |
| Indirect GHG emissions location-based (Scope 2) | K Metric Tons CO ₂ e |
| Indirect GHG emissions market-based (Scope 2) | K Metric Tons CO ₂ e |
| Total energy consumption | MIn GJ |
| Energy consumption from unbundled RECs | MWh |
| Total energy consumption intensity | GJ/Metric Ton of production |
| Renewable energy consumed | As % of total electricity use |
| NOx absolute emissions | Metric Tons |
| NOx emissions intensity | Kg/Metric Ton of production |
| SOx absolute emissions | Metric Tons |
| SOx emissions intensity | Kg/Metric Ton of production |
| Absolute freshwater consumption | 1,000 m ³ |
| Freshwater consumption intensity | m ³ /Metric Ton of production |
| COD absolute emissions to surface water | Metric Tons |
| Total absolute waste | Metric Tons |
| Absolute hazardous waste | Metric Tons |
| Absolute non-hazardous waste | Metric Tons |
| Total waste intensity | Kg/Metric Ton of production |
| Calculated Scope 3 total absolute GHG emissions (the sum from all reported categories: 1, 2, 3, 4, 5, 6, 7, 8, 11, 12) | K Metric Tons CO ₂ e |
| Total OSHA Incident Rate (OIR) for employees and temporary workers | Per 200,000 hours worked |
| Total OSHA Incident Rate (OIR) for contractors | Per 200,000 hours worked |
| Lost Time Injury Rate (LTIR) employees and temporary workers | Per 200,000 hours worked |
| Lost time Injury Rate (LTIR) contractors | Per 200,000 hours worked |
| Process Safety Incident Count (PSIC) | # of incidents combined PSE1 + PSE2 |
| Manufacturing sites with ISO-14001/RC-14001 certifications | % |
| Suppliers acknowledging our Business Partner Code of Conduct | % by spend |
| Female workforce | % |
| Employees who have completed Code of Conduct (incl. Anticorruption) training | % |
| Employees undertaking Respectful Workplace training | Number |
| Board members that the Code of Conduct/Anti-corruption policies have been communicated to | Number / % |
| Suppliers measured on EcoVadis performance | % of spend |
| Suppliers screening using Risk IQ | % of spend |
| Manufacturing sites with OHSAS-18001/RC-18001 and ISO45001 certifications | % |

About Nouryon

Nouryon is a global, specialty chemicals leader, with dual headquarters in Radnor, PA, and Amsterdam, Netherlands, and incorporated in Ireland. Markets and consumers worldwide rely on our essential solutions to manufacture everyday products, such as personal care, cleaning goods, paints and coatings, agriculture and food, pharmaceuticals, and building products. Furthermore, the dedication of more than 8,200 employees with a shared commitment to our customers, business growth, safety, sustainability, and innovation has resulted in a consistently strong financial performance. We operate in over 80 countries around the world with a portfolio of industry-leading brands.

Nouryon