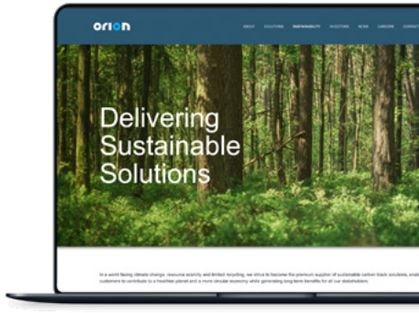
Driving innovation...

...enabling the everyday

Orion S.A. Sustainability Report 2024

Welcome to the Orion Sustainability Report 2024

Learn more about sustainability at Orion at: orioncarbons.com/sustainability



About this report

Our 2024 Sustainability Report outlines our approach to sustainability and our progress to date. We endeavour to be transparent and continue to learn through ongoing monitoring and evaluation of our approach. This report is approved by Orion S.A.'s Board and produced in accordance with the GRI 2021 Standards.

The information stated in this report concerns and covers all the consolidated company's business entities from January 1 to December 31, 2024.

How to use this report

The following symbols indicate that additional information can be found either in this report or on our website:

View more online | View a video | Read more in this report

FIG 2: DETERMINED MATERIAL TOPICS

ENVIRONMENTAL	Financially material	Impact material	
Climate change	●		See page 19 for details
Emissions	●	●	See page 25 for details
Pollution		●	See page 27 for details
Circularity	●	●	See page 30 for details
SOCIAL	**Financially material**	**Impact material**	
Talent management	●		See page 34 for details
People and culture	●		See page 36 for details
Occupational health and safety		●	See page 37 for details
Product quality, safety and stewardship	●		See page 38 for details

Double Materiality Assessment

The recently conducted materiality assessment creates value for Orion by focusing our company's strategy, by improving our understanding of key business risks and opportunities, and by meeting regulatory requirements.

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Conductive additives and batteries

Orion breaks ground on a plant in La Porte, Texas, that will produce conductive additives for batteries.

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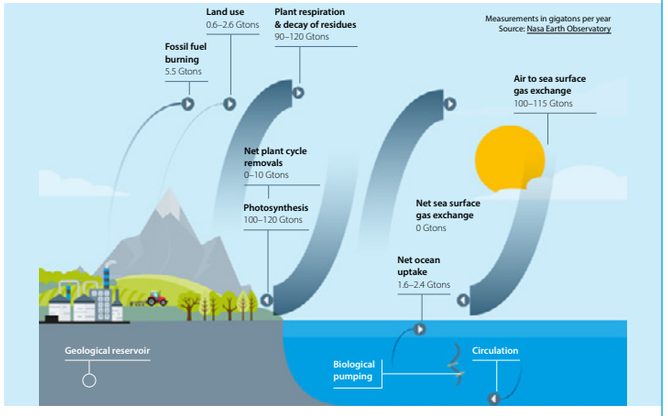

Net zero vision

To achieve net zero emissions, we have to leverage both bio-circular (cf. above picture of natural CO_2 cycle) and circular feedstocks (e.g., from tire recycling).

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1,650 employees

Serving customers in over 80 countries worldwide

We are Orion

Orion S.A. is a specialty chemicals company that makes carbon black, an essential material for the modern world. With carbon black, products we all depend on in everyday life last longer and perform better – from paints and coatings to tires, lithium-ion batteries and high-voltage cables.

Carbon black is traditionally made by upcycling industrial byproducts that would otherwise create more carbon emissions when disposed of in other ways. Today, we're innovating with this highly engineered material, strengthening carbon black's role in sustainable manufacturing.

We are driving innovation, enabling the everyday

Our lineage stretches back 160 years to Germany, where we still operate the world's longest-running carbon black facility. Today, over 1,650 Orion employees work to serve customers in over 80 countries around the world.

We have 15* plants on five continents and R&D laboratories on three continents. Our innovations have included the first carbon black made from renewable materials and the first circular carbon black.

Read more online

View video here

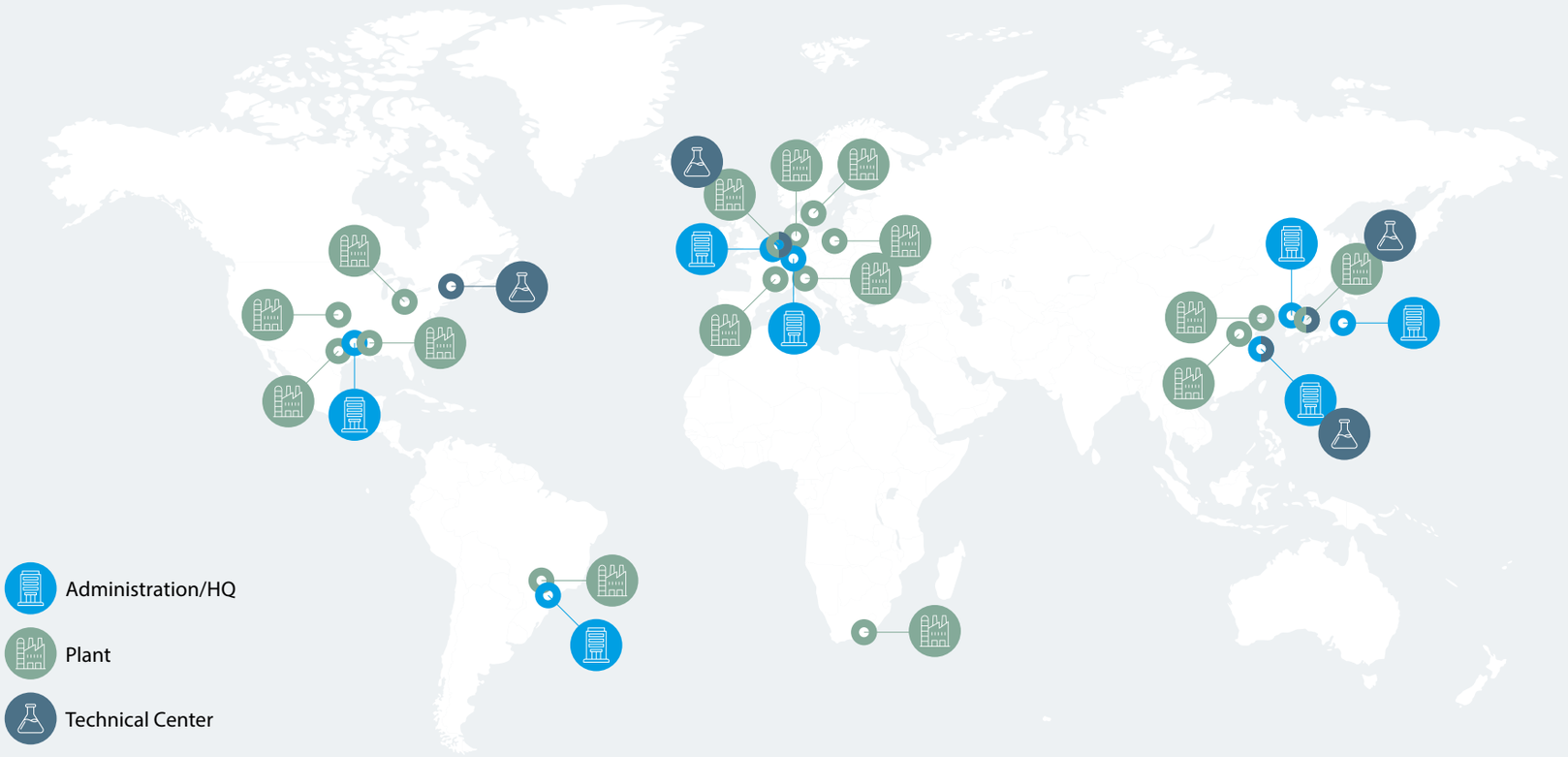
An Orion employee in the company's lab in Carlstadt, New Jersey, USA.

* 14 are wholly owned by Orion and one is a joint venture.

Orion at a glance

GLOBAL SPECIALTY CARBON BLACK MARKET

GLOBAL RUBBER CARBON BLACK MARKET



OPERATIONAL HIGHLIGHTS

80+
countries in which we support our customers

~1,650
employees

~1,150 KMT
functional carbon black production capacity

15*
Plants

~1,000
customers supplied

30–40 yrs
length of average customer relationship

FINANCIAL HIGHLIGHTS

935 KMT
annual sales volume

$1,878 MM
annual revenue

$302 MM
annual adjusted EBITDA

$168 MM
annual operating cash generation

* 14 are wholly owned by Orion and one is a joint venture.

How we create value

We create value by operating profitably within planetary boundaries, meaning we strive to be profitable while recognizing the limits of what the biosphere can tolerate. Some of Orion's solutions enable our customers to create environmentally efficient products and participate in a circular economy. This way, we create long-term value for all our stakeholders – from employees to investors and the communities in which we operate.

STRENGTHS

1. Differentiated production capabilities with proprietary after-treatments
2. Low-carbon manufacturing of conductive carbon blacks for EV and energy storage batteries
3. Customer-centric products and solutions that are diverse, customizable and versatile
4. Technology-enabled to deliver the industry's broadest product portfolio
5. Global innovation capabilities with integrated R&D platform
6. Disciplined capital allocation strategy
7. Strong operational excellence
8. Competitive pricing strategy
9. High-performance colleagues and culture

HOW WE DELIVER

ENABLE
our people and relationships to shape a sustainable future

INVEST
in innovation to advance circularity and green products

DELIVER
differentiated products that create sustainable value whilst decarbonizing our own operations

INDUSTRY SEGMENTS ENABLED

Tires

Mechanical rubber goods

Batteries

Coating systems

Printing systems

Polymers

Special applications

VALUE CREATED

Shareholders
Our adjusted EBITDA in 2024 was $302MM. This marks the third consecutive year above $300MM – all were above pre-COVID levels of profitability.

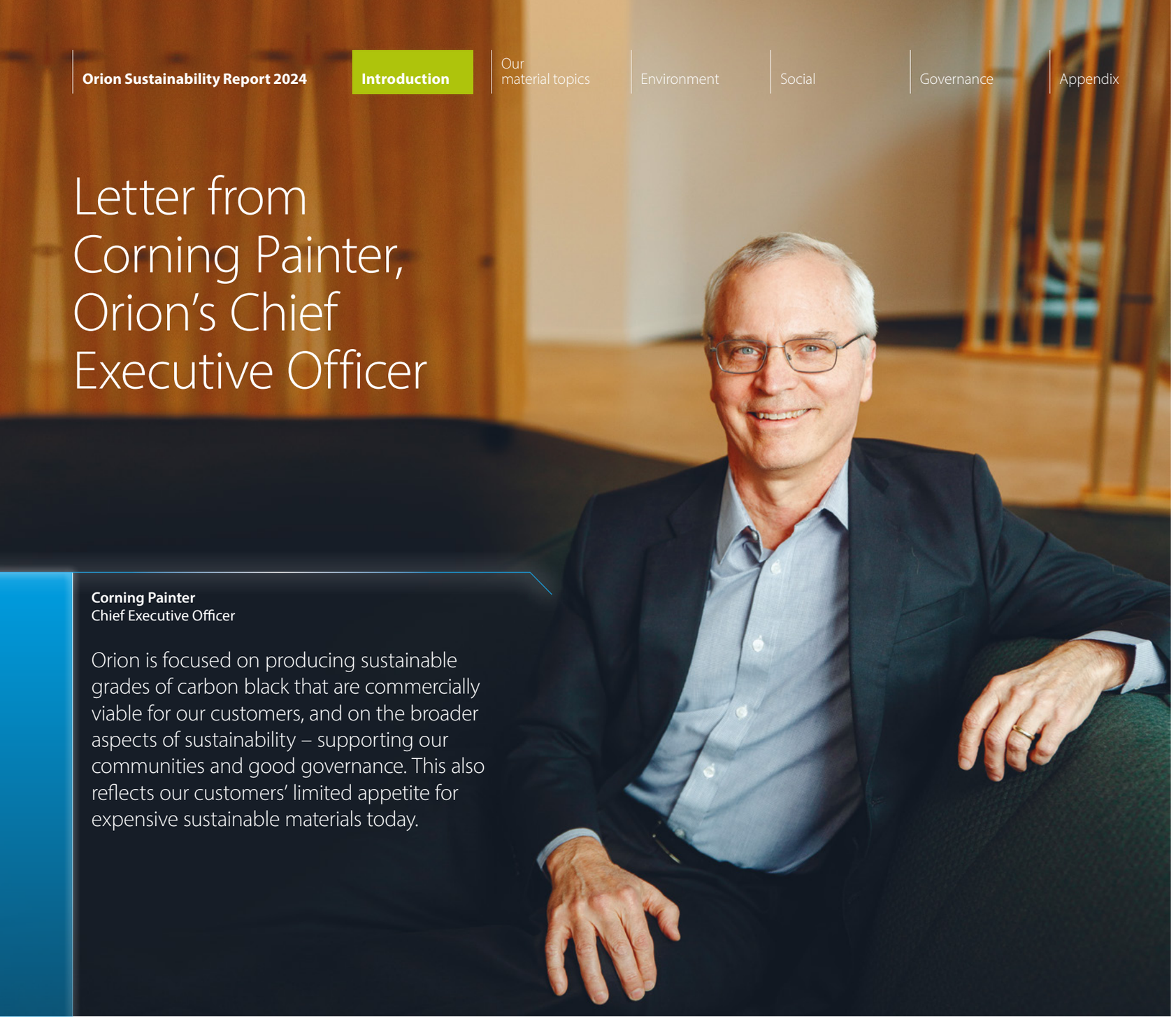
Customers
We support our customers on their sustainability targets by creating sustainable products from our ECORAX® product lines which are made from bio-circular and circular feedstocks.

Employees
We expanded our training programs to upskill and encourage career growth for employees. 85% of employees received 40 hours of training to enhance their career.

Environment
We continue to reduce our impact on the environment with a further reduction of our greenhouse gas emissions intensity in 2024.

Communities
Globally, we generate safe jobs, pay fair wages, and support communities through charitable activities and respectful workplaces.

Letter from Corning Painter, Orion's Chief Executive Officer



Corning Painter
Chief Executive Officer

Orion is focused on producing sustainable grades of carbon black that are commercially viable for our customers, and on the broader aspects of sustainability – supporting our communities and good governance. This also reflects our customers' limited appetite for expensive sustainable materials today.

We not only believe efforts around sustainability are the right thing to do for the environment. We are also convinced there is an opportunity to build a competitive advantage by being a leader in cost-effective materials, creating a circular economy and helping carve the pathway to a cleaner world for future generations.

Globally, electrification is a major theme in many industries to achieve decarbonization and other major sustainability goals. That is why the energy transition is a significant theme of our 2024 Sustainability Report. We want to show how we are producing materials that are essential for a world powered increasingly by electricity. Done well, electrification provides benefits beyond the environmental. It often offers a lower cost of ownership and in the case of electric vehicles, a thrilling driving experience with great acceleration!

We have been supplying battery makers for more than a century, and we are excited about new business opportunities as this otherwise mature industry is now evolving rapidly.

Although I spend much of my day thinking about business, I'm still a chemical engineer at heart, and I enjoy looking at the science behind our products. When people talk about what goes into a battery, they often mention metals like lithium, cobalt, nickel and copper. Few are aware that batteries do not work well without conductive additives – one of Orion's key value-added Specialty segment products.

Described in basic terms, a battery is simply a way to store energy using chemicals. Batteries have a cathode (positive electrode) and an anode (negative electrode). When a battery is used, it converts stored chemical energy into electrical energy. Electrons move from the anode to the cathode through an external circuit, providing power. Orion's conductive carbons help the electrons flow.

From a commercial point of view, one of our key goals is to be where our customers are. Companies running battery gigafactories don't want costly interruptions, so having suppliers that are local and secure is extremely important. In Europe, we have plants in Germany and France that produce battery-grade materials. And we will soon start up a battery materials facility in Texas that will be the only plant of its kind in the U.S.

Letter from Corning Painter, Orion's Chief Executive Officer *continued*

> Our French and soon-to-be-commissioned U.S. facilities are special because they produce acetylene-based conductive carbon – super-clean material with virtually no impurities or contamination. It is the purest of all commercially available carbon blacks and has the lowest carbon footprint.

Our French and soon-to-be-commissioned U.S. facilities are special because they produce acetylene-based conductive carbon – super-clean material with virtually no impurities or contamination. It is the purest of all commercially available carbon blacks and has the lowest carbon footprint.

The acetylene-based material can be used in many markets, and it is ideal for lithium-ion batteries used in electric vehicles. For sure, there has been a lot of talk lately about how EV sales growth has slowed down in key global markets, raising concerns about battery demand in the short term. Overcapacity is currently an issue in the market.

Our material costs less than an alternative technology, carbon nanotubes (CNTs), which is an important plus for us in times like this. Also, an ebb and flow in demand has long been expected, and the general trajectory remains upward and still represents a compelling growth vector for our industry.

Aside from EVs, there are other key markets that we are focused on. We produce material that is being adopted for grid-scale energy storage systems – where batteries are often the size of shipping containers. This market is now the fastest growing of all energy technologies, according to the International Energy Agency (IEA).

The growth surge is largely due to broad adoption of solar and wind power, as well as the growth associated with power-hungry data centers running semiconductors designed for artificial intelligence.

Within this niche, demand is growing from a relatively small base. But in 2025, 80 gigawatts of new grid-scale energy storage will be added globally – an eight-fold increase from 2021, the IEA says.

Another market with tremendous growth potential is the transmission space, where high-voltage wire and cables are deployed. For example, there are ambitious plans to use thousands of miles of subsea power lines to connect Europe with North Africa's wind and sunshine.

Our conductive additives play a key role in certain high-performance wire and cable formulations.

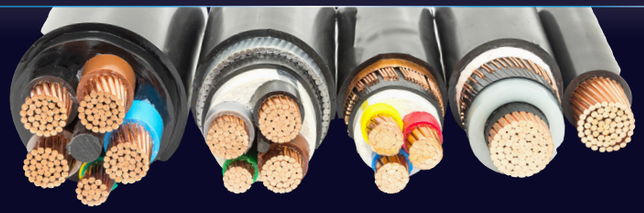
All considered, we continue to believe that sustainability concerns are a change in the marketplace that is creating opportunities for us. We see conductive carbons, particularly acetylene-based conductive carbons, as a prime example of this. Acetylene-based material is ultra clean, highly conductive and cost-effective relative to CNTs. While EV sales growth has calmed down, we believe it reflects a very attractive market for us. At the same time, energy storage systems are taking off right now.

We see a business opportunity here that aligns with sustainability, and we are going for it.

Sincerely,

Corning F. Painter
Chief Executive Officer

2024 highlights



Conductive additive innovation
We developed conductive additives for high and extra high voltage cables, which are crucial for electrification and transition towards net zero. PRINTEX® kappa 100, an extremely clean acetylene black, protects the insulation layers, contributing to the longevity and resilience of cables.

Scaling circular rubber
In 2024 we achieved a milestone in scaling up production of our circular tire pyrolysis oil (TPO), upgrading our infrastructure and permits at our Jaslo plant in Poland and closing a multi-year TPO supply agreement with Alpha Carbone.

// We create products that enable more efficient and powerful lithium-ion batteries that help to decarbonize mobility. PRINTEX® kappa 10 is a key part of this strategy.

New products
We launched PRINTEX® Nature 35, our first carbon black with a negative carbon footprint including biogenic emissions and removals (based on the Together for Sustainability (TfS) calculation methodology). Made from 100% bio-circular raw materials not in conflict with food production, this product had been strongly requested, especially from the printing ink industry, which is looking for bio-based products with improved LCA.

AWARDS

International Carbon Black Association's Safety Performance Recognition Program – Eight Orion plants earned a Gold Award for their outstanding safety records.

"Environmental Achievement of the Year – Industry Contribution" at the Tire Tech Expo, honoring Orion and other partners in the BlackCycle project for tire recycling.

European Institute of Innovation & Technology's (EIT) Public Award was won by Orion and its partners in the HiQ-CARB consortium, focused on developing more sustainable batteries. Orion and its partners also won third place in EIT's innovation Award competition, recognizing Europe's most promising innovators.

The Chemical and Allied Industry Association in South Africa presented the "Water Award" to Orion's plant in Nelson Mandela Bay, which built a system that recycles wastewater for use in the facility's production process.

Top Workplaces in Houston, a competition sponsored by the Houston Chronicle newspaper, recognized Orion as a top workplace in the city for the second year in a row, based on employee-satisfaction surveys sent to Orion staff members.

CERTIFICATIONS

EcoVadis Gold
Orion has been awarded a Gold Medal by sustainability ratings organization EcoVadis. This result places us among the top 5% percent of companies assessed by EcoVadis in the past 12 months.

CDP "B" score
Orion achieved the second highest CDP score for our responses to CDP's "Climate Change" and "Water Security" questionnaires, recognizing its efforts to mitigate its climate impact and ensure effective emissions and water management.

ISCC certifications
Following the ISCC+ certification of our German plants in 2023, customers can now buy their bio-circular-based specialty carbon blacks with 100% ISCC+ certification.

EHS certifications
Our plant in Huaibei, China, achieved ISO14001 and ISO45001 certifications during 2024, for environmental management and occupational health and safety management.

The global trends shaping our business

//

Moving from fossil fuel-derived raw materials to plant-based or bio feedstocks and circular raw materials from recycling is central to our sustainability strategy."

Corning Painter
Chief Executive Officer

CLIMATE CHANGE

Reducing environmental impacts means cutting emissions, saving resources and reducing waste.

How we deliver

- Our ECORAX® Nature products are based on oils derived from biological waste materials.
- Our ECORAX® Circular products use end-of-life tires as a primary raw material.
- We recover heat and steam from our production processes to generate energy.
- Reducing our environmental impact through actions like investing in air emission controls, gray water systems, and developing technology to efficiently recycle old tires.

GROWING WORLD POPULATION

As the global middle class keeps growing, so does demand for consumer products and personal transportation. More resource-efficient production is part of the solution.

How we deliver

- As the only company that can make carbon black with four different production technologies, we offer the broadest portfolio of products to the specialty market.
- To meet the demands of consumer product and automotive businesses, we continue to invest in innovation across both rubber and specialty carbon black.
- By producing circular and bio-circular carbon black, we reduce the need for fossil-based raw materials.

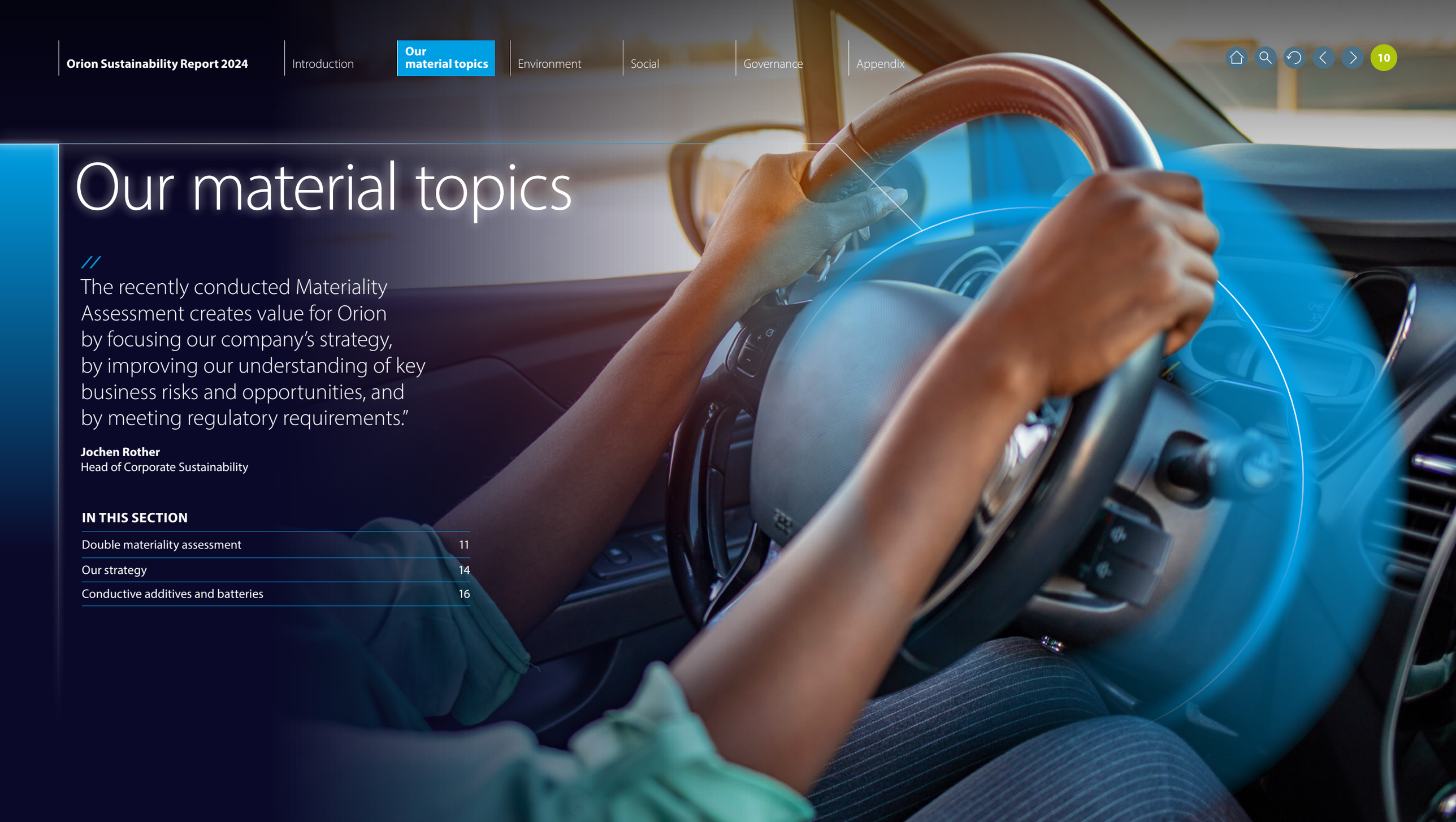
ELECTRIFICATION AND SUSTAINABLE MOBILITY

Renewable energy systems and electric vehicles continue to grow, driving a need for advanced materials.

How we deliver

- Our advanced conductive additives make lithium-ion batteries more efficient, powerful and long-lasting.
- These materials also enhance the performance of high-voltage cables needed to connect renewable energy systems to the electric grid.
- By reducing rolling resistance in tires, our products can help improve fuel efficiency in internal combustion engine (ICE) vehicles and range in electric vehicles (EVs).

Our material topics



"The recently conducted Materiality Assessment creates value for Orion by focusing our company's strategy, by improving our understanding of key business risks and opportunities, and by meeting regulatory requirements."

Jochen Rother
Head of Corporate Sustainability

IN THIS SECTION

Double materiality assessment

In 2024, we conducted a double materiality assessment to identify sustainability topics that are important, or material, to the business.

The double materiality assessment is a requirement under the European Sustainability Reporting Standards (ESRS) to comply with the Corporate Sustainability Reporting Directive (CSRD), to which Orion will be subject in the future.

The comprehensive double materiality process considers both how sustainability topics may affect the organization's financial performance (financial materiality), as well as how the organization's activities may affect society and the environment (impact materiality).

HOW DOES DOUBLE MATERIALITY CREATE VALUE FOR ORION?

Regulatory compliance

Double materiality forms the foundation of CSRD compliance and will inform which material topics are relevant to Orion and will therefore be disclosed in a future CSRD-compliant report.

Risk management

The double materiality process and outcomes provide a broad understanding of impacts, risks and opportunities (IROs) related to material topics, which will contribute to effective management of key business risks and opportunities. Impacts, risks and opportunities identified will be routinely monitored, refreshed, and assessed annually to determine whether they remain relevant to the business.

Input into strategy

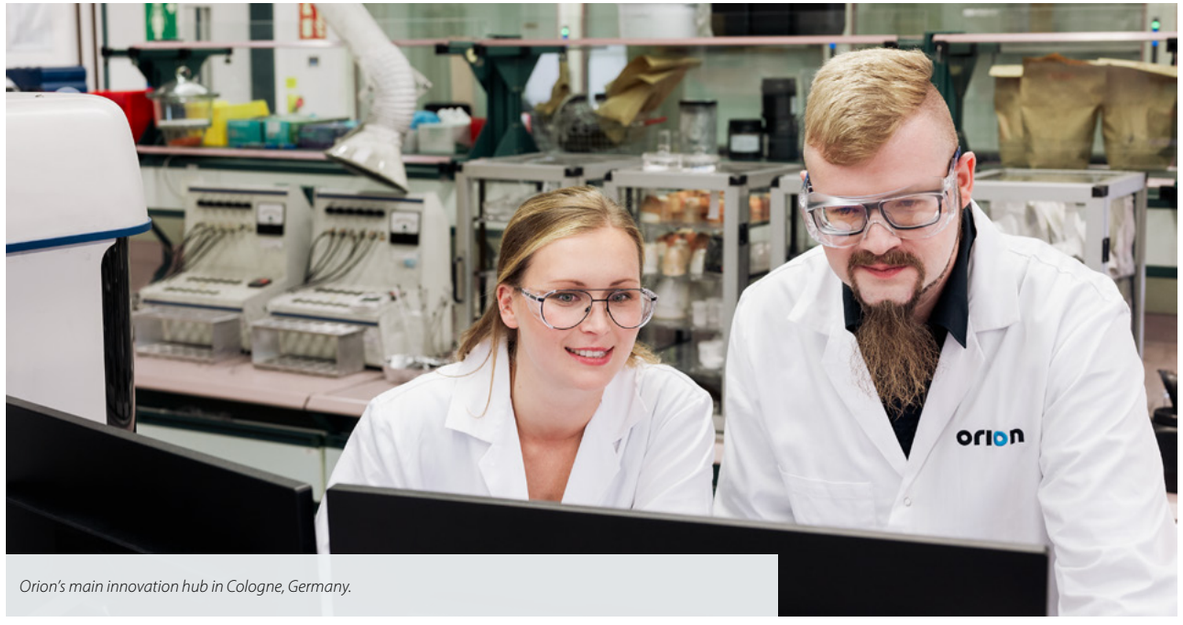
The preliminary results of this assessment will help Orion not only to meet regulatory requirements, but also to conform to leading practices by aligning with a broad ESG framework. Material IROs can inform both the prioritization of human and capital resources and the creation of procedures supporting data collection and external reporting.

Process

Our double materiality process leveraged the views of internal and external stakeholders, as well as regulatory and value chain analysis, to identify and prioritize key sustainability topics.

The Orion double materiality assessment is aligned with CSRD framework and structure, and therefore aligns to ESRS language and stated sustainability topics.

Desk-based research: Value chain analysis and market scan → Identification of potentially material topics → Identification of impacts, risks & opportunities → Financial and impact scoring by internal and external stakeholders → Leadership calibration and final results



Orion's main innovation hub in Cologne, Germany.

Double materiality assessment *continued*

Desk-based research: Value chain and market scan

We reviewed Orion's value chain to understand Orion's key business activities, dependencies and impacts, and to help identify IROs. The business activities across our value chain are summarized in Fig 1. Key internal and external documents, such as policies, peer reports and industry standards, were used to identify key sustainability topics.

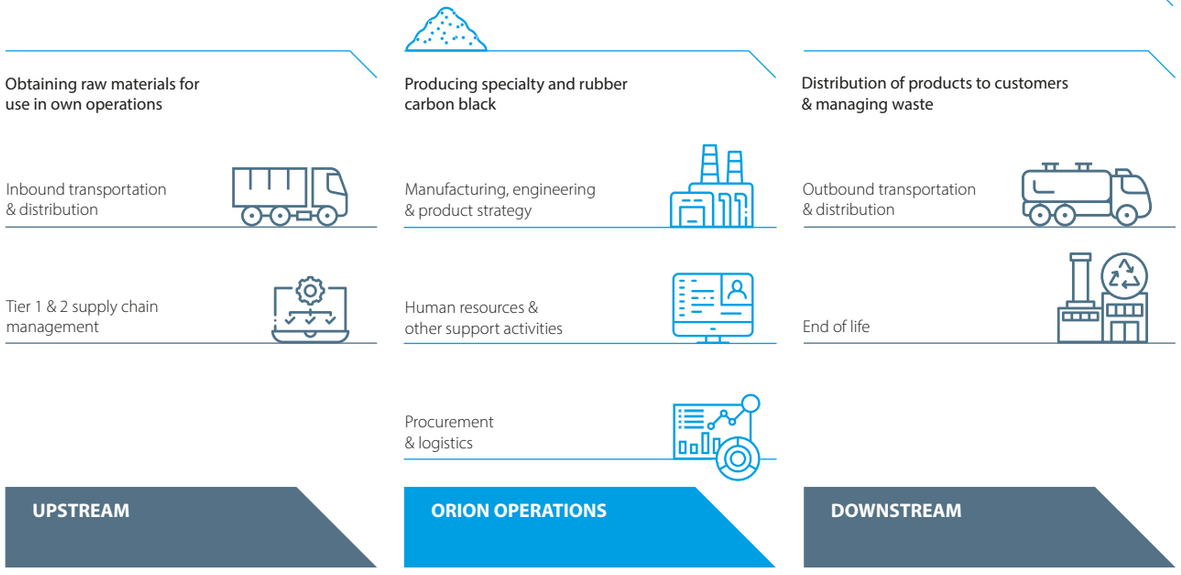
Identification of potentially material topics

Using sustainability topics identified in the desk-based research, we were able to consolidate the provided ESRS list of material topics into a shortlist of 20 potentially material topics.

Identification of impacts, risks and opportunities (IROs)

The impacts, risks and opportunities identification process was based on the shortlist of 20 potentially material topics, desk-based research and the analysis of our value chain. It assessed unique impacts, risks and opportunities for each topic, considering their relevance to business activities within Orion's control, and those occurring upstream (e.g., suppliers' activities) and downstream (e.g., customer service activities). IROs were also evaluated to determine the time horizon in which the impact, risk or opportunity was most likely to arise.

FIG 1: ORION'S VALUE CHAIN AND RELATIONSHIPS



Financial and impact scoring by internal and external stakeholders

We developed financial and impact criteria for scoring impacts, risks and opportunities in accordance with the ESRS criteria and alongside Orion's existing Enterprise Risk Management (ERM) process. Criteria for scoring negative impact materiality included severity and likelihood. Severity was based on scale, scope and irremediability. For positive impacts, materiality was based on the scale, scope and likelihood of the impact. The materiality of risks and opportunities was assessed based on potential magnitude and likelihood of the financial effects.

These scoring criteria ensure rankings are highly relevant and specific to Orion's business and operational context. In line with ESRS guidance, we took an alternate approach to negative human rights impacts by applying a multiplier of two to the severity score of all human rights-related negative impacts.

During the double materiality process, we followed CSRD guidance, which identifies two main groups of stakeholders – affected stakeholders and users of sustainability statements – whose views and interests are central to this assessment process. We identified five groups for engagement: employees, customers and competitors, investors, suppliers, and regulators. We determined representative internal proxy stakeholders for each external group.

We interviewed and surveyed 17 internal stakeholders assigning each internal stakeholder to specific impacts, risks and opportunities based on their topic area of expertise and ownership of responsibilities and held sessions in which IROs were discussed in detail to determine the validation of scoring, value chain mapping, time horizon and to align scoring across all IROs. Executives Corning Painter (CEO) and Jeff Glajch (CFO) were engaged to validate the preliminary double materiality assessment results. External stakeholders' priorities were largely aligned with the preliminary findings of the double materiality assessment.

Leadership calibration and final results

Certain IROs were studied and calibrated to align their financial or impact materiality with leadership and core team insights. Adjustments to scores were made utilizing the evidence gathered through stakeholder engagement, including executive interviews and external insights, and internal expertise.

At the end of the IRO assessment and stakeholder engagement and calibration processes, 13 topics were deemed material for Orion, see Fig 2.

Double materiality assessment *continued*

FIG 2: DETERMINED MATERIAL TOPICS

ENVIRONMENTAL	Financially material	Impact material	
Climate change	●		See page 19 for details
Emissions	●	●	See page 25 for details
Pollution		●	See page 27 for details
Circularity	●	●	See page 30 for details

SOCIAL	Financially material	Impact material	
Talent management	●		See page 34 for details
People and culture	●		See page 36 for details
Occupational health and safety		●	See page 37 for details
Product quality, safety and stewardship	●		See page 38 for details

GOVERNANCE	Financially material	Impact material	
Business ethics, compliance and corporate culture	●	●	See page 44 for details
Supply chain management		●	See page 49 for details
Public policy and engagement	●		See page 51 for details

SECTOR-SPECIFIC MATERIAL TOPICS	Financially material	Impact material	
Innovation and IP	●	●	See page 52 for details
Security		●	See page 52 for details

Orion's plant in Borger, Texas.

Our strategy

Our approach to sustainability reflects the trends that shape our business and the outcomes of our materiality analysis.

These emphasize that we must achieve two objectives: operating to minimize environmental impact – especially in relation to greenhouse gas emissions – while helping to meet the growing need for sustainable products and electrification. As well as having a license to operate, this means continuing to earn the support of our communities by being a good neighbor and responsible steward of the environment.

Our approach

We balance sustainability with responsible business success, using both well-established and new technologies to decarbonize our production facilities, reduce environmental impacts, reinforce our safety culture and drive circularity in our products for the rubber and specialty carbon black markets.

Our foundation

Orion's innovation capability is built on a strong foundation across the three core pillars of sustainability: environment, social and governance (ESG). We use our materiality assessment to understand ESG impacts and address these by embedding sustainability into our policies, procedures, culture and operations. We understand that financial and sustainability performance are interdependent and inextricably linked.

Our focus areas

Our three main focus areas remain essential for the net-zero transition and to create commercial longevity for our business:

- **Enabling carbon black** is our advanced range of furnace and acetylene-based conductive materials that support the move to electrification by improving the performance of batteries and distribution cables.
- **Circular carbon black** uses end-of-life tires as a primary raw material and is now the primary focus of our rubber carbon black business, matching the performance of traditional carbon blacks.
- **Bio-circular carbon black** is made from feedstocks derived from biological waste and residues from agriculture or forestry, removing the need for fossil-based raw materials.

> // Our strategy – supporting electrification, building a cost-effective circular business model and using bio-circular materials – means Orion is well positioned to support the net zero transition."
>
> **Jochen Rother**
> Head of Corporate Sustainability

Why bio-circular?

We use the term 'bio-circular' instead of 'renewable', as it captures the actual resources used to make sustainable carbon black at Orion. Renewable refers to natural resources that can be continuously replenished naturally or regenerated on a human timescale. In contrast, 'bio-circular', defined by the ISCC, refers to waste and residues of biological origin from e.g. agriculture and forestry, as well as the biodegradable fraction of industrial and municipal waste (e.g. used cooking oil, tall oil, food waste). This approach minimizes waste and ensures that resources are continually cycled back into the production process, reducing the strain on natural resources, and enhancing sustainability.

Our strategy *continued*

Our global frames of reference

The foundation of our sustainability strategies and practices is our alignment to the United Nations Global Compact (UNGC). We support the 10 universal principles of the UNGC in the areas of human rights, labor, anti-corruption and the environment. These principles are embedded in our professional conduct guidelines for suppliers and employees and applied to our business operations. Our annual commitment to progress on the UNGC can be found online.

Orion's main innovation hub in Cologne, Germany.

"Embedding sustainability in our strategy is essential for managing risks and unlocking new opportunities. It fuels our approach to business growth, innovation, and investment, ensuring we maximize both our positive impact and commercial success."

Jeffrey Glajch
Chief Financial Officer

Orion also contributes to the UN Sustainable Development Goals (SDGs), which address key global challenges such as poverty, inequality, climate change, environmental degradation, peace and justice. As confirmed by our materiality assessment, Orion can directly contribute to three SDGs:

Industry, innovation and infrastructure

We are developing technologies that promote energy efficiency and sustainable transport.

Please refer to page 31 for more information on how we are driving innovation.

Responsible consumption and production

We are using circular and bio-circular materials to reduce the need for primary and fossil-based materials.

Please refer to page 30 for more information on the work we are doing to drive circularity.

Climate action

We are working to decarbonize our processes and are a partner in supporting the energy transition.

Please refer to page 19 for more information on how we are supporting the net zero transition.

Conductive additives and batteries

Orion is ready to lead the charge in the battery industry.

Orion breaks ground on a new battery materials plant in La Porte, Texas.

UNDERSTANDING CONDUCTIVE ADDITIVES IN BATTERIES

To appreciate the role of conductive additives, it's helpful to understand how a battery works. A battery stores energy with chemicals and consists of a cathode (positive electrode), an anode (negative electrode), a separator and an electrolyte. When in use, the battery converts stored chemical energy into electrical energy. Electrons move from the anode to the cathode through an external circuit, providing power.

Most electrode materials have poor electrical conductivity, which can limit battery performance. Conductive additives are mixed into the electrode materials to help electrons flow more easily, enhancing the battery's efficiency, lifecycle and performance.

Batteries are key for the shift from fossil fuels to renewable energy. While discussions about battery components often focus on metals such as lithium, cobalt, nickel and copper, another essential component is often overlooked: conductive additives, which enhance conductivity at the electrode level.

Orion has been producing these materials for over a century, and they are becoming increasingly important as we move into the age of electrification.

The importance of carbon black

Each battery, ranging from dry cell, lead acid to advanced Li-ion battery, requires a conductive additive. With the growing electrification of mobility and growing demand of stationary energy storage solutions, carbon black as conducive additive is therefore on high demand. Orion's acetylene black manufacturing process yields a carbon black that stands out in terms of purity, carbon footprint and performance in the battery. Orion's cleaner technology relies on acetylene gas, an industrial byproduct from the production of ethylene, which is used in polyester fibers, plastics and film.

The acetylene process is virtually free of impurities, provides better performance, results in minimal waste and emissions, and means that around 90% of the carbon is retained in the product. Carbon black produced through this innovative process has a carbon footprint eight times lower than in the furnace process, which helps to reduce our battery customers' emissions.

Orion's process is an environmental success story. An industrial byproduct that would typically be burned for power, creating significant pollution, is instead upcycled into a critical material for batteries that are essential for the shift to electrification.

Advantages of Orion's conductive additives

Orion's acetylene-based conductives are particularly attractive to battery makers because they are hydrophobic and only little water is adsorbed, properties that are crucial for battery safety and lifespan. The material also has extremely low metal content, further enhancing battery longevity.

Expanding production and innovation

Orion produces acetylene-based conductives at its plant in Berre-l'Étang in southern France and is building another facility in La Porte, Texas, near Houston. The company also opened a Battery Innovation Center in Germany last year, providing practical perspectives on optimizing battery composition for customers. These efforts are part of Orion's strategy to lead the carbon black industry and meet the growing demand for batteries as the world embraces societal change to electrification.

Future demand and opportunities

Despite fluctuations, the electric vehicle market is expected to continue growing. Demand for energy storage systems – giant batteries often the size of shipping containers – will grow as power grids increasingly rely on wind and solar energy. It also allows cogenerators to better schedule their power sales to sell into the grid at peak demand periods. Energy-hungry artificial intelligence data centers will also drive demand.

The growing importance of high-voltage wire and cable, which requires conductive carbon black, is also significant. The world's electricity map is changing, as power grids in regions like northern Europe need to be connected by subsea cables to solar and wind farms thousands of kilometers away in Africa. One such power line project is running 4,023 kilometers of cable from the United Kingdom to wind and solar farms in Morocco.

The future is full of opportunities for Orion's conductive additives business. We are ready to lead the charge.

Construction continued in 2025 on Orion's new La Porte facility.

Environment

//

With its unique properties that enhance durability and strength, carbon black remains a vital component in product performance. As we move toward net zero, it will continue to play a key role – particularly in advancing electrification."

Carlos Quinones
Chief Operating Officer

MATERIAL TOPICS

Our approach

We are taking decisive action to play our part in the transition to a net zero future.

Orion's lab in Carlstadt, New Jersey.

2024 ACHIEVEMENTS

New TPO tanks in Poland

In December 2024, our operation in Jaslo positioned two tire pyrolysis oil (TPO) tanks. These will enable Orion to produce circular carbon black on a large scale for the first time in our history. This project is scheduled for operational startup in Q1 2025.

Net zero process in Germany

Orion has begun its journey to develop a net zero process and new pilot plant facility at our site in Cologne (Kalscheuren), Germany, where we have our most advanced innovation center.

Investment to scale up TPO production

Orion's 2024 investment in French tire recycling company Alpha Carbone will enable the company to scale up and produce commercial volumes of tire pyrolysis oil (TPO), for which Orion will be the exclusive customer, and recovered carbon black.

Orion is an inherently circular business, converting waste from the hydrocarbon industry, which would otherwise be burned, into materials that make everyday products perform better. This process diverts carbon from the atmosphere and creates materials that make our customers' products more durable and higher performing. To minimize our environmental footprint and achieve our emissions reduction ambitions, we are developing new and more efficient technologies and processes, and developing products based on circular and bio-circular feedstocks.

Our environmental strategy covers the following areas:

- **Greenhouse gas (GHG) emissions and energy.** Reducing GHG emissions and energy use, and moving ahead on our journey to net zero.

See page 25 for detail.

- **Pollution and resource management.** Minimizing our environmental impacts and use of resources.

See page 27 – 29 for detail.

- **Product stewardship and circularity.** Developing quality products that support our customers' sustainability ambitions.

See page 38 and 30 for detail.

Orion uses environmental management systems aligned with international standard ISO 14001 and describe our processes and procedures in relation to environmental protection. We use these in tandem with our Orion Integrated Global Management System (GMS), to ensure occupational and process safety, health protection and quality management including sustainable compliance, social accountability, and product stewardship.

Climate change and approach to net zero

Orion recognizes the urgency of the net zero transition. We are aligned with the Paris Agreement on climate change and are making steady progress on our journey to reach net zero emissions by 2050.

TARGETS

BY 2029

Normalized Scope 1 GHG emissions intensity reduced by

8%

(base year 2014)

CO_2 emissions from outbound freight reduced by

30%

(base year 2019)

BY 2030

Scope 2 market based GHG emissions

0

BY 2050

Net zero GHG emissions

Achieving this goal requires continuing innovation in our products while simultaneously reducing the impact of our operations. To advance this transition, we have begun upgrading our plants and facilities to optimize energy use, investing in R&D to shift toward circular and renewable feedstocks for sustainable products, and developing ultra-clean conductive carbon additives to support electrification. This approach makes both commercial and environmental sense.

As leaders in specialty carbon blacks, we are well positioned to meet the growing demand for these products. The technologies at our disposal allow us to drive innovation and develop more sustainable grades of carbon black. While emissions may initially increase as we introduce new products and processes, we expect to improve efficiencies as we scale production and refine our manufacturing methods. By continuously optimizing our plants, we can grow our business while maintaining a strong focus on sustainability.

In line with our commitment to a low-carbon future, we have conducted impact assessments, set ambitious targets, implemented measures, and launched initiatives to help us achieve these goals.

In 2023, we surpassed our targets for SO_2, NOx, particulate matter and tail gas utilization against a 2014 baseline. We will continue to monitor performance for these elements closely, and updates on our current progress can be found on page 55.

> //
> We have analyzed our impacts, set ambitious targets, and are continuously monitoring our activities and adjusting our action plans so that we can reach these targets."
>
> **Morgan Enty**
> Director Global EHS and Product Stewardship

OPPORTUNITIES TO REDUCE SCOPE 2 EMISSIONS

While Scope 2 emissions account for less than 10% of our total emissions, we are committed to reducing these through targeted measures that align with our sustainability goals. Such measures include:

On-site electricity generation

Using tail gas and waste heat from our production processes to generate electricity directly on-site at our plants. This reduces reliance on external power purchases and often generates a significant surplus that can be fed to the grid and reduce the need to fossil fuel power generation somewhere else. We have plants in all major regions that use this technology and where possible we also supply district heat (e.g., in Kalscheuren, Germany, and Malmö, Sweden), to use waste heat in the most efficient way.

Energy efficiency measures

Implementing energy-saving initiatives to reduce overall electricity consumption across all our sites, for example upgrading equipment and optimizing processes.

Purchasing green electricity

Procuring renewable energy from certified green electricity providers to minimize the carbon intensity of purchased power. Since most of our electricity consumption is covered by self-generation based on waste heat from our production process the share of renewable electricity consumed was 8.6% in 2024.

Our focus is on the first two options, as these are the most effective from a sustainability perspective. For our remaining electricity consumption, we explore opportunities to purchase green electricity where on-site generation or energy efficiency is not technically or economically feasible.

Climate change and approach to net zero *continued*

MEASURES

Improving yields
We continue to improve the energy efficiency of converting hydrocarbon feedstock to carbon black, which means less carbon is converted to CO_2.

Air pollution control systems
Investments in these systems throughout our production sites ensure compliance with operating permits and licenses, and applicable environmental laws and regulations. We record and monitor data at each site to measure emission efficiencies with a focus on reduction. GHGs and other emissions are included and managed in our group-level enterprise risk management program.

Reductions in SO_2, NOx and particulate matter (PM) emissions intensity rates
These reductions are the result of additional emissions control systems, such as scrubbing systems or the use of lower-sulfur feedstocks to reduce SO_2 emissions. To improve PM emission intensity rates, we tightened operating procedures and installed additional PM detectors in our U.S. sites.

Energy efficiency and cogeneration
Where feasible, we use excess heat from our reactors in our production process to increase efficiency and reduce fuel consumption. When feasible, we also use the energy in our byproduct tail gas to provide energy to our communities – for example, through district heat systems or by providing electricity to the grid. We are also mindful of the efficiency impact we can have on downstream products in the use phase, for example as lighter-weight materials in cars, or batteries with longer life cycles. This is why we will continue to work closely with our customers, to build on energy efficiency across the value chain.

Continuous, coordinated energy management
Our global operations, regions, individual production sites, procurement and R&D functions work together to manage our energy use. We collect and analyze individual production site-level energy input and output data and keep track of key performance parameters. This also allows us to identify hotspots in energy usage and opportunities for improvement.

Communication with suppliers
Engagement along the value chain is key to improving emissions related to raw materials. As we continue to communicate with suppliers, we can evaluate opportunities that will benefit the whole supply chain.

A new high-efficiency cooling tower at Orion's Borger, Texas, plant.

What is cogeneration?
Cogeneration makes industrial processes more efficient. We use excess heat from our processes, in the form of hot gas, to generate usable energy. Examples include using the hot gas to heat water for communities or to generate electricity that feeds the grid. Many Orion plants worldwide use this technology.

ADDITIONAL MEASURES

Beyond our current emissions reduction activities, we aim to support wider systemic change in the following ways.

Engagement with our employees
Minimize business travel, apply emissions limits to fleet vehicles, use video conferencing tools as much as possible, encourage public transport for commuting and support hybrid working.

Transparency and wider industry engagement
Maintain an open dialogue by reporting on environmental developments objectively, improving energy efficiency, and developing alternative solutions.

Product stewardship and innovation
Continue to reduce energy consumption by improving our production technology and enhancing the performance of our products.

Commitment to standards in sustainable operations
Ensure annual ISO 14001 re-certification for all sites.

Government engagement
Continue to collaborate with other companies and institutions on publicly funded projects to drive governmental initiatives for innovation and emissions reduction within the industry.

ESG-incentivized financing strategies
Orion has secured financing through a sustainability-linked term loan and a sustainability-linked revolving credit facility (RCF). These financing approaches are aligned to key ESG targets that if met, reduce the overall financial costs through a reduction in the interest rate or other financial benefits (e.g., increased line of credit to enable growth). Orion achieved the emissions reduction targets for a term loan linked to the performance of our U.S. plants, saving the company approximately $650,000 in interest payments in 2024. If the targets continue to be met, Orion will reduce financing costs over the full term by a total of $2.6 million. We have renewed a €300 million RCF that will be linked to Orion's emissions intensity reduction targets and an improvement in its EcoVadis rating. If these are met, the company could also reduce the finance costs associated with the RCF.

Orion's vision to net zero

As climate change and its impacts accelerate, so must the solutions and behavior changes needed from governments, business and consumers.

Strategies and technologies for climate change adaptation present both challenges and opportunities. Our evolving net zero vision provides advantages for the future of our business.

DRIVERS FOR CHANGE

Increased consumer demand for sustainable products

Delivering sustainable products in our industry requires innovation and a focus on the rapid development of the recycling and waste recovery market. This area is developing quickly, as the evolving tire pyrolysis industry shows. As a result, there will be more alternative circular feedstocks and wider availability of recovered carbon black (rCB).

More stringent governmental regulation

Governments are pursuing a variety of approaches to reduce CO_2 emissions. The European approach is to implement a carbon emission trading system. This has been enhanced by the introduction of a Carbon Border Adjustment Mechanism (CBAM), which is designed to impose charges on the carbon content of imported products and ensure they are subject to the same costs as those manufactured locally. While this approach could level the playing field inside the EU, it needs to be simplified to be effective and it still leaves companies that export from the EU at a disadvantage.

A variation of these regulations could motivate a more rapid shift to a circular economy. Governmental incentives could further create an environment whereby businesses are encouraged to make bolder and more drastic changes to achieve more positive environmental outcomes.

We continue to monitor regulatory changes across our markets.

We keep innovating in materials, technologies and products to make faster progress on the road to net zero.

Our vision and strategy

Our product development strategy is closely aligned with the goal of transitioning to a net zero future. By envisioning a model that incorporates bio-circular and circular raw materials, we aim to achieve carbon negativity by leveraging the natural carbon cycle. To bring this vision to life, we are pursuing a dual-track approach that involves utilizing biologically derived oils and contributing to the circularity of biogenic carbon. With our new portfolio of bio-circular and circular products, we have proven that high-performance carbon black grades can be produced from these alternative feedstocks.

As part of this effort, we have invested in the French tire recycling company Alpha Carbone, enabling it to scale up production of tire pyrolysis oil and recovered carbon black. Orion will use the pyrolysis oil to manufacture circular carbon black for tire and rubber goods customers.

Our primary challenge lies in improving the competitiveness of these products and driving widespread industry adoption on a global scale. We will continue to innovate and develop new technologies to enhance production efficiency and accelerate progress toward our net zero target. This strategy is expected to reduce our reliance on fossil-derived feedstocks while contributing to a lasting solution for atmospheric CO_2.

Orion's vision to net zero *continued*

How we leverage the biological CO_2 cycle

By shifting our emissions to CO_2 from biological sources, we can achieve net zero or even a negative carbon footprint, when long-term carbon storage in the carbon black is considered. The infographic illustrates the natural carbon cycle.

CO_2 is continuously absorbed from the atmosphere through photosynthesis and later released through natural processes such as respiration and the decomposition of biomass, for instance leaves and trees. The term "biogenic carbon" refers to the CO_2 that plants capture and utilize. When these organisms reach the end of their life cycle, they break down and release this biogenic carbon back into the atmosphere, completing the natural cycle.

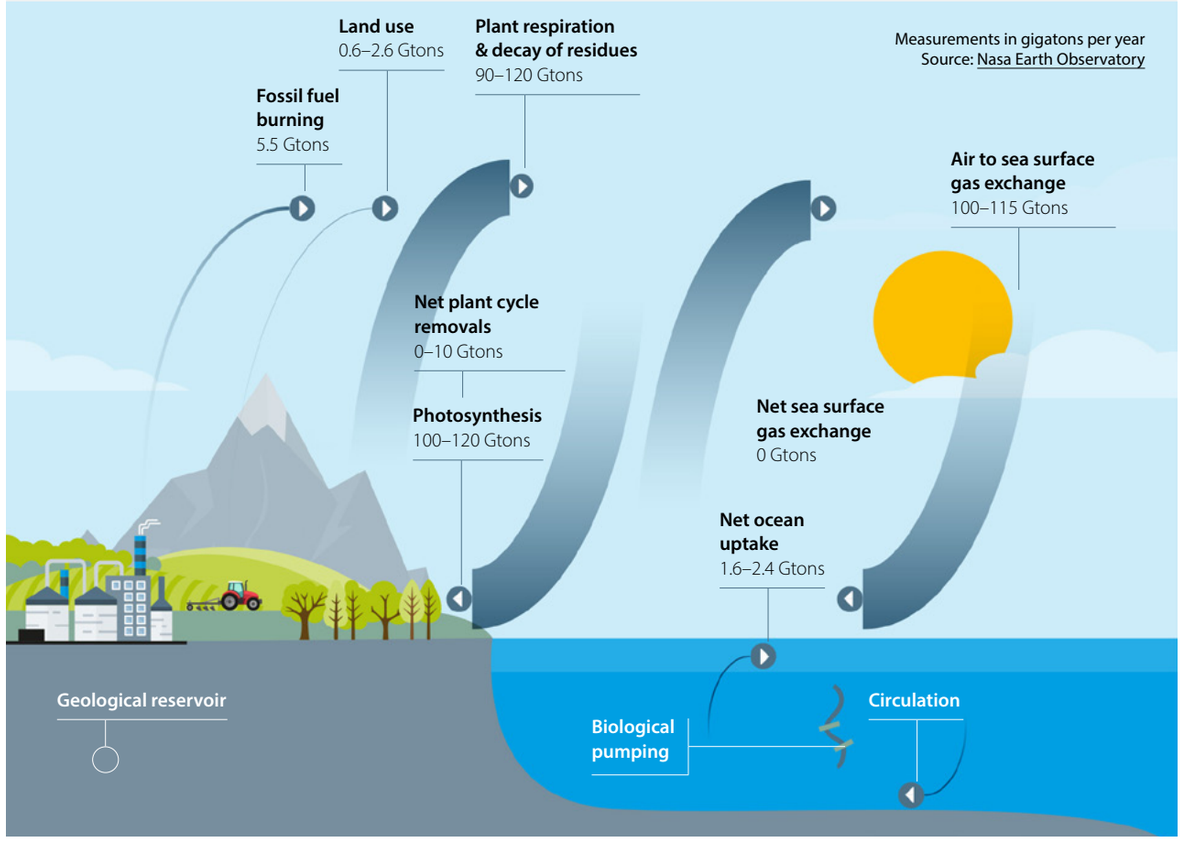
Using plant-based materials to make carbon black creates products that are more sustainable than carbon black made from fossil fuels. By incorporating biogenic carbon into our products, we can help keep the natural carbon cycle balanced. However, it's crucial to consider how we source these materials. If they take up land needed for other purposes, it can lead to problems such as deforestation. A good approach is to use bio-waste that would otherwise go unused.

THE NATURAL CARBON CYCLE

This diagram illustrates a comparison of the different natural carbon cycles, including the ocean's role in the carbon cycle, alongside human impacts.

While emissions from human activities are relatively small compared to natural cycles, it's crucial to acknowledge that human activity disrupts the natural balance, resulting in far greater carbon emissions.

However, we have the potential to harness the processes within natural cycles through increasing the utilization of biological materials as a means to address carbon imbalance.



Currently, around 70% of all carbon black produced is used in tires, many of which are eventually burned at the end of their lifespan. This process releases carbon – primarily fossil-derived – into the atmosphere, contributing to greenhouse gas emissions and environmental pollution. By utilizing oil derived from the pyrolysis of used tires, we can recover this carbon and significantly reduce its environmental impact compared to incineration.

Larger tires, such as those used for trucks and buses, are made almost entirely from natural rubber, while passenger and light truck tires contain a roughly equal mix of natural and synthetic rubber. As a result, used tires have a high biogenic carbon content. By leveraging the pyrolysis process within the natural carbon cycle, we can establish a more permanent storage solution for this biogenic carbon. There is considerable potential to scale this approach, as demonstrated by our investment in Alpha Carbone.

Learn more at orioncarbons.com/news

Bio-circular feedstocks

Plant-based feedstocks enable us to use up to 100% biogenic carbon replacement for our current fossil feedstocks, to create bio-circular carbon blacks. Today, we primarily use bio-circular feedstocks. This refers to waste and residues of biological origin from agriculture, forestry and related industries including fisheries and aquaculture. Using bio-circular feedstocks allows us to temporarily remove carbon from the biological cycle, and using waste and residue-derived products means there is no need to grow feedstock crops that take up land which could be used for food crops. However, any carbon stored when we make carbon black from these materials will ultimately be released if the tire is burned at the end of its life. Our vision is that with the growth of tire recycling via pyrolysis, tires will not be burned, and the carbon can be used again and again.

> When plant-based materials are used as feedstocks for carbon black, they become regenerative, and more beneficial than fossil oil.

Circular feedstocks from recycling

We aim to recycle tires at the end of their life through pyrolysis. This is the chemical decomposition of organic (carbon-based) materials using heat. Unlike burning or combustion, pyrolysis occurs in the absence or near absence of oxygen.

The pyrolysis process takes end-of-life tires, first removes the wire, mesh and other similar materials and then exposes the rubber to high temperatures. It reduces the tires to synthetic gas, recovered carbon black (rCB, the carbon black originally used to make the tire), and

Orion's vision to net zero *continued*

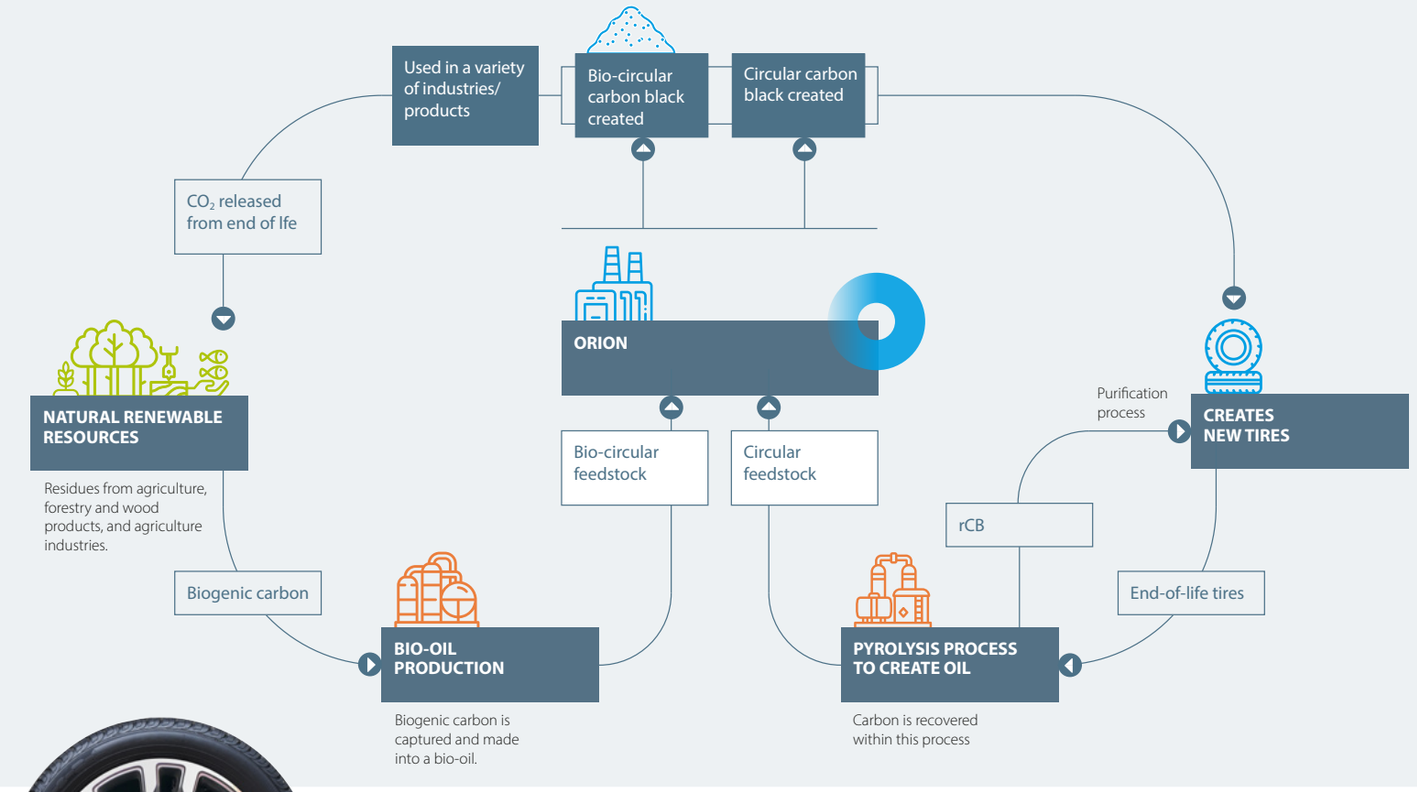
tire pyrolysis oil (TPO). Orion is the only company that has made circular carbon black from 100% tire pyrolysis oil as a feedstock. We have also demonstrated that its circular products can completely replace virgin carbon black in many applications.

Through this process, we can also extend temporary removal of CO_2 from the natural carbon cycle by creating circular carbon blacks from the biogenic carbon stored in TPO. As the usage of bio-circular and circular carbon blacks in conventional tires increases, both the rubber and the carbon black will contain biogenic carbon. This means that the total percent of biogenic carbon in recycled tires will increase over time. Taken to its limit, with enough tire recycling, we could replace fossil fuels as a carbon black feedstock.

Secondary feedstocks

Secondary feedstocks provide the heat and atmosphere for carbon black-generating reactions. Most of our reactors use natural gas as secondary feedstock today, which can, in principle, be replaced with biomethane as a bio-circular alternative. However, biomethane is both scarce and expensive, with prices twice that of natural gas.

STAYING IN THE CIRCLE: BIO-CIRCULAR AND CIRCULAR FEEDSTOCK



If tires are recycled via pyrolysis rather than burned, the carbon they contain can be used again and again.

How Life Cycle Assessment measures impact

Life Cycle Assessment (LCA), governed by standards such as ISO 14040/14044, is indispensable for monitoring operations due to its comprehensive evaluation of environmental impacts throughout a product's life cycle.

Within an LCA, the Product Carbon Footprint (PCF) serves as a vital metric, specifically quantifying a product's Global Warming Potential (GWP) in CO_2 equivalents. This metric is particularly valuable in guiding sustainability efforts and informing decision-making processes across industries.

Adopting a "Cradle-to-Gate" approach, as defined by the Greenhouse Gas Protocol, allows for a thorough examination of emissions from all stages of production, from raw material extraction to the point of sale. This enables organizations to identify areas for improvement and implement strategies to mitigate environmental impacts within these stages.

In this regard, guidelines provided by organizations such as Together for Sustainability (TfS) play a crucial role. TfS offers tailored guidelines, especially applicable for the chemical industry, which facilitate accurate allocation of emissions across various processes, including co-products, by-products, and recycle streams that are common in chemical manufacturing.

Orion's vision to net zero *continued*

By integrating LCA principles into our operations and using tools such as PCF, we have been able to compare the GWP of our current grades to equivalent bio-circular and circular carbon blacks using alternative feedstocks. To clarify, there will still be CO_2 emissions from our carbon black production process when using biogenic-based feedstocks. However, the biogenic carbon stored in the product can lead to a net reduction of atmospheric CO_2.

> Carbon neutrality needs more than operational efficiency. Creating a circular economy with renewable and circular grades is the key.

Accomplishments and ongoing work

As well as being the first major carbon black manufacturer to develop a sustainable carbon black, we have now successfully made a range of bio-circular and circular grades that are commercially available to our customers and suitable for a wide scope of applications.

We've noted that a key step in the permanent sequestering of CO_2 from the atmosphere will include recycling, of which tires is the largest consumer industry for carbon black. Therefore, to keep this circularity, it is important for us to develop a range of bio-circular and circular carbon blacks that are fundamental to making a modern tire. Available products from this range include ECORAX® Nature 200, ECORAX® Circular 210, 215 and 220 as well as ECOLAR® 50 and PRINTEX® Nature 35 for our specialty carbon black, which uses bio-circular feedstock.

We already have ISCC PLUS certification at five* of our plants and are adding others worldwide. This allows us to certify the exact amount and type of sustainable content in our sustainable carbon black grades.

We continued our participation in the now-completed BlackCycle project (see page 31), working with several organizations to support the investment of tire circularity throughout the value chain. Beyond this work, Orion has begun its journey on a publicly funded project to develop a net zero from climate neutral process at a new pilot plant facility to be built at our site in Cologne, Germany, where we have our most advanced innovation center. The research is being supported by KEI (Klimaschutz in Energieintensiven Industrien) and is being partly funded with around €6.4 million from the German Federal Ministry for Economic Affairs and Climate Action Energy (BMWK), as part of the Decarbonization in Industry program, and the European Union.

The path ahead

Enhancing the efficiency of our plants alone will not be enough to achieve carbon neutrality. The key lies in building a circular economy with renewable and circular carbon black grades. As global demand for tires and carbon black increases, CO_2 emissions will continue to rise – unless circular solutions become more widely adopted in the market. Additionally, we remain committed to evaluating emerging technologies that could support our journey toward net zero emissions.

We have already demonstrated the feasibility of producing bio-circular grades. Looking ahead, we will focus on improving the competitiveness of both circular and bio-circular grades by enhancing yield, optimizing process efficiency, and reducing production costs. This approach will enable us to advance our manufacturing capabilities, further cut CO_2 emissions, and expand commercial sales of these sustainable products simultaneously.

To maximize the benefits, it is essential to integrate a bio-circular process within a modern, highly efficient facility. As part of this strategy, we will continue investing in plant upgrades, as outlined in our Life Cycle Assessment (LCA), targeting improvements such as waste heat recovery and process yield optimization to drive efficiency and sustainability.

The new tank infrastructure in Jaslo, which will be put into operation at the beginning of 2025, gives us the opportunity to use circular tire pyrolysis oil (TPO) on a larger scale as a feedstock in production. The infrastructure in our European production sites also makes it possible to continue using bio-circular feedstock. In addition, we can access bio-circular feedstock qualities from the ethylene process, which are delivered as ISCC PLUS certified feedstock according to the mass balance model.

However, we also see market changes in traditional sources of supply, which can have a negative impact on our efforts to reduce CO_2 emissions. The European steel industry is reducing its use of coke, with coke capacity already withdrawn from the market and further coke plant closures expected. We also see a short- to medium-term capacity reduction in the European ethylene cracker landscape.

Both these changes will have an impact on feedstock availability in Europe and could also lead to longer supply transport routes. The reduction in the availability of highly efficient feedstock qualities from traditional markets will lead to a decrease in yield and throughput performance in carbon black production.

Product testing in Cologne, Germany.

> We're working to make our circular and bio-circular grades more efficient to reduce production costs whilst increasing yield.

* Four are wholly owned by Orion, and one is a joint venture.

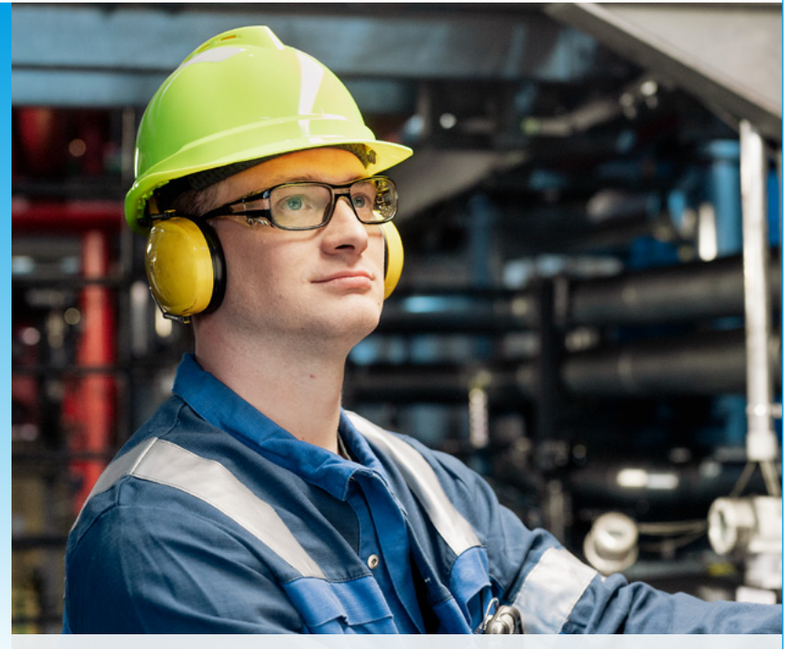
Operational emissions management

We are committed to emissions reduction as part of integrating sustainability considerations into our operations.

Implementing best practices across all production sites is crucial for reducing global emissions and meeting our targets. To achieve this, we not only ensure strict compliance with operational permits and environmental regulations but also closely monitor emissions data at each facility. Additionally, we continuously invest in improving our air pollution control systems and enhancing operational expertise.

By further optimizing efficiency, we can increase our yield and productivity and significantly reduce our Scope 1 and 2 emissions.

Our Scope 1 and Scope 2 emissions account for 62.5% of our GHG emissions, with our Scope 3 emissions accounting for less than 40%. We are continuing to work with our value chain to capture and measure our Scope 3 emissions and aim to set targets in the future. In 2024, we saw continued reduction in both Scope 1 and Scope 2 emissions.



Producing carbon black in Cologne, Germany.

GHG emissions

Indicator	Unit	Target	2024	2023	2022
Scope 1	mn MT CO_2e		**2.2**	2.2	2.3
Scope 1 Intensity	MT CO_2e / MT Production		**2.45**	2.47	2.50
Normalised Scope 1 Intensity	MT CO_2e / MT Production		**2.28**	2.36	2.39
Intensity reduction	%	**-8**	**-7**	-4	-3
Scope 2 – Market Based	k MT CO_2e	**0***	**132**	152	166
Scope 2 – Location Based	k MT CO_2e		**127**	123	–
Scope 2 Intensity	MT CO_2e / MT Production		**0.14**	0	0.18
CO_2 Emissions Reduction from Outbound Freight (3)	%	**-30**	**-17**	-17	-4
Scope 3	mn MT CO_2e		**1.4**	1.3	1.4

* All targets are aligned to the 2029 deadline except for KPIs with an asterisk denoting a 2030 deadline.

We diligently monitor emissions data at individual production sites and continually invest in enhancing our air pollution control systems and operating know-how.

Operational emissions management *continued*

Emissions data reporting, collection and third-party audit

All our plants comply with the emissions and emissions reporting regulations of the jurisdiction in which they operate. Emissions calculations and assumptions are carried out at site level. The degree and complexity of the traceability of emissions data relating to each site varies according to regional requirements. We use the Benchmark Gensuite® and Anaplan platforms to collect and analyze emissions data. In 2024, we launched a third-party audit of our global GHG emissions (Scopes 1, 2 and 3) for all plants, leveraging local government methodologies and verifications. The independent limited assurance report can be found on page 73.

Jurisdictional differences relating to Scope 1 CO_2 emissions at Orion locations

- **European Union** – emissions data is checked and verified by licensed third parties and published annually by the European Commission.
- **South Africa** – emissions are calculated using GHG Protocol standards, applying GHG Protocol multiples to production figures.
- **South Korea** – emissions trading scheme (ETS) system used by the government to calculate and verify data.
- **Brazil** – emissions are calculated using GHG Protocol standards and confirmed by the government.
- **China** – emissions calculations and assumptions are carried out using the internationally accepted mass balance method followed by the EU operations. No ETS guidance or calculations are currently provided locally.
- **U.S.** – we are aligned to the EPA rules on GHG reporting.

Energy efficiency

We approach energy management from two key perspectives: as a critical input in our production processes and as residual heat energy that can be effectively utilized. Our commitment lies in both minimizing the energy required for production and maximizing the recovery and use of waste heat energy. By improving productivity and yield, we can further reduce overall energy consumption while increasing the use of recovered heat.

It is important to note that specialized carbon black, designed to meet specific customer requirements, generally requires more energy to produce than standard grades as defined by the global body ASTM International. Likewise, our advanced rubber grades – engineered to improve tire fuel efficiency by reducing rolling resistance – also have higher energy intensity. However, we believe the broader societal benefits outweigh these higher energy demands, as these specialized products contribute to better fuel economy and extended tire lifespan. Additionally, our portfolio's emphasis on specialty products helps reduce the overall greenhouse gas footprint within the industry value chain.

We remain dedicated to improving energy efficiency while reinforcing our role as a provider of innovative solutions that drive sustainability across the industry. A key part of our strategy involves recovering waste heat from our production and using it to preheat reactor inputs, thereby lowering our energy consumption. Additionally, we harness by-product tail gas to generate steam for internal operations, provide district heating to communities in Europe and Asia, and produce electricity.

As in 2023, in 2024 we achieved an 84% tail gas utilization rate at the group level – exceeding our 2029 target of 79% five years ahead of schedule.

Energy

	Unit	Target	2024	2023	2022
Energy consumption	TWh		**20.3**	20.0	20.8
Tail gas utilization rate	%	**79**	**84**	84	73

84%

Tail gas utilization rate at the group level

Orion's senior leaders tour a plant producing battery materials in Berre-l'Étang, France.

Pollution

Making carbon black is resource intensive. We work hard to monitor and reduce its resource demands and to manage and mitigate pollution and waste from the production process.

Orion's plant in Jaslo, Poland.

Air, soil and water pollution

Carbon black is generally considered a non-hazardous substance and is commonly incorporated into materials like plastics and rubber, where it remains largely inert. However, the carbon black oil used in its production has the potential to cause soil or water contamination if spilled, though such incidents are uncommon. To minimize this risk, we have established strict policies and procedures. Any spill, regardless of size, is reported and promptly addressed, with in-depth investigations conducted for more significant incidents. Additionally, all employees have undergone training in environmental compliance and procedures.

Our carbon black production facilities release greenhouse gases (GHGs), sulfur oxides (SOx), nitrogen oxides (NOx), particulate matter (PM), and water as part of their operations. To control these emissions, we employ various technologies, including thermal oxidizers to break down air pollutants, circulating dry scrubbers (CDS) to remove SO_2, and selective catalytic reduction (SCR) to reduce NOx levels. At our facility in Ivanhoe (U.S.) we have implemented a combined catalyst to eliminate NOx and SO_2 while also producing sulfuric acid from waste gases. Some plants use low-sulfur feedstocks to limit SO_2 emissions. To manage PM emissions, we rely on advanced filtration systems, early warning mechanisms, and industry best practices to minimize particulate discharge into the air. Our emissions are monitored in accordance with local regulations, with most facilities using continuous emission monitoring systems for their thermal oxidizer and SCR systems.

Other emissions

Intensity Emissions	Unit	Target	2024	2023	2022
SO_2	%	**-50**	**-60**	-60	-42
NOx	%	**-25**	**-30**	-31	-24
Particulate matter	%	**-15**	**-47**	-37	-34

// We exceeded all our SO_2, NOx and PM 2029 reduction targets for a second year in a row and we will continue monitoring and disclosing our performance.

For detail on how we manage GHG emissions, see page 25.

We exceeded all our SO_2, NOx and PM 2029 reduction targets for a second year in a row and we will continue monitoring and disclosing our performance.

All our emissions, including water discharged from our operations, are strictly managed in accordance with applicable laws and regulations. We have implemented a rigorous process to enhance waste efficiency and minimize environmental impact in the communities where we operate. However, we recognize that no system is entirely immune to accidents.

Raw materials management

Our raw materials purchasing strategy is designed to maximize yields while minimizing emissions. We work with reputable suppliers to reduce the risk of spillage as much as possible. Carbon black oil, our primary raw material, is stored in tanks that comply with local safety regulations and are maintained under the Orion Mechanical Reliability program. For heating processes, we mainly use natural gas delivered via pipeline, the safest transportation method for this material.

Water management

A reliable and continuous water supply is essential to our operations. Water is used in carbon black production and steam generation, with steam serving multiple purposes: it supports our manufacturing process, is sold to external customers, and is used to generate electricity. Additionally, we provide hot water for district heating through a continuous loop in Malmö, Sweden, and Hürth, Germany. Water sources include surface water, wells, municipalities, and retention ponds, while discharge points include sanitary sewers, municipal systems, natural water bodies, and collection ponds.

We continuously enhance our processes and technologies to minimize water discharge and outflow, and wherever possible, we promote circularity by recycling rainwater, quench water (used for rapid cooling), and gray water. Water management strategies are tailored to the specific needs of each site and its production process. However, all locations collect rainwater in catch basins, which also store steam condensate for reuse as process water.

To ensure responsible water usage, we monitor consumption through metering at most of our plants and carefully assess wastewater quality. Before discharge, all wastewater undergoes strict treatment to comply with legal requirements.

Six of our plants operate in areas of high or extremely high water stress: Qingdao and Huaibei, China; Ravenna, Italy; Port Elizabeth, South Africa; Yeosu, South Korea; and Berre l'Etang, France. We operate within local regulations and are working to better understand and address our impacts in water-stressed locations.

Pollution *continued*

THE FLOW OF WATER THROUGH A CARBON BLACK FACILITY

Carbon Black manufacturing is a water-intensive process, and water is a shared community resource.
That's why carbon black manufacturing facilities are advancing water stewardship, with an emphasis on responsible water usage and conservation efforts.

1

- **Water may be withdrawn** from a river, lake, reservoir, groundwater, sea, public or private utility.
- Permits can limit withdrawal from water sources under certain circumstances (e.g., drought, regulatory limits, etc.), which can improve conservation and reuse efforts.
- Using only the water quantity necessary avoids excessive energy and chemical use.
- Treatment of raw water is generally needed to produce high-purity water used in the production process or to produce steam.
- Large tanks or lagoons may be used to store water prior to use at a facility.

2

- **Cooling systems** represent a significant portion of water used in a carbon black facility.
- Cooling water is treated and may be returned to the watershed.
- **A recirculating cooling system** uses the same water repeatedly to cool reactions and products. Heat absorbed from the process must be dissipated to allow reuse of the water. **Cooling towers or heat exchangers** are most commonly used for this purpose.

3

- **Steam generation** is essential for process heating and can be used to generate electricity or district heating.
- Steam condensate is reused to improve energy and water efficiency.
- Minerals and other materials are removed through reverse-osmosis or ion exchange, as ultra-pure water is needed for this process.

4

On-site storage

- Carbon black plants may store large volumes of water for **fire protection** in tanks or lagoons.
- Water also may be stored in tanks and collected for **onsite or offsite wastewater treatment.**

5

Ancillary use

- Water is necessary for **cleaning, WASH (water, sanitation, hygiene) services, transportation** and other facility operations.
- Water is also used in heating and ventilation systems (HVACs) for both employees and processes.

6

- Water used in a carbon black plant **is treated prior to discharge** to remove organics and other compounds in accordance with established permit limits.
- **Wastewater treatment facilities** may be located on-site, or at an off-site Publicly or Privately Owned Treatment Works (POTW).
- Prior to discharge, treated water must comply with discharge permit levels.
- Wastewater treatment requirements are location-specific, aiming to minimize environmental impacts to local watersheds.

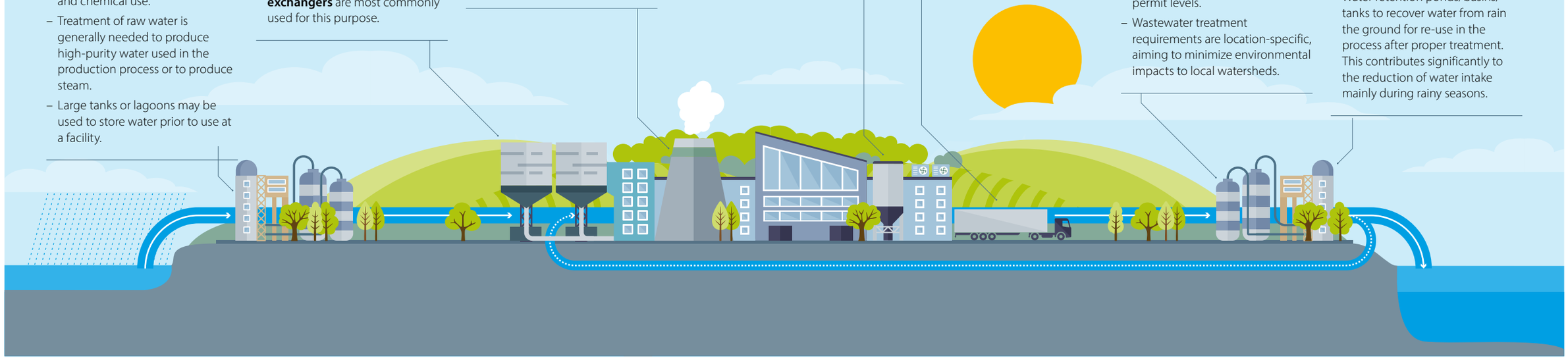
7

Key elements of responsible water discharge management include:

- Monitoring water quantity and quality.
- Treating wastewater before discharge.
- Considering water stress, reuse opportunities and other factors.

Water recycle/reuse management Include:

- Water retention ponds/basins/ tanks to recover water from rain the ground for re-use in the process after proper treatment. This contributes significantly to the reduction of water intake mainly during rainy seasons.



Pollution *continued*

CASE STUDY

Reusing gray water in Nelson Mandela Bay

In October 2024, Orion celebrated the completion of its new $3.6 million wastewater treatment system at our Nelson Mandela Bay facility in South Africa. By treating gray water from a local water treatment works so it can be reused in carbon black production, the system means that our plant now has less need for fresh water, ensuring more is available for the local community in this water-stressed area.

The system can treat 3 million liters of water per day and has already won an award for water conservation. Before it was installed, the Orion facility used up to 1.7 million liters of potable water each day in its production processes. Now, wastewater that would otherwise have been pumped into the ocean is treated with a reverse osmosis process so it meets production standards for the Nelson Mandela Bay plant. As well as freeing up fresh water for the community, this project will also allow for further industrial growth in the area.

Waste management

Our production processes generate both hazardous and non-hazardous waste, including bottom oil and sludge that accumulate in raw material tanks. We adhere to proper procedures aligned with applicable laws and regulations for waste handling and disposal, as well as for preventing potential spills. Waste management and disposal are governed by local laws and regulations, and Orion consistently meets or surpasses these requirements.

To ensure compliance, we utilize our Global Management System (GMS) audits and policies, which are maintained by our global Environment, Health & Safety (EHS) function in collaboration with regional professionals. The EHS team also provides training for both employees and contractors.

We are committed to preventing hazardous material spills, with a target of zero incidents. Our comprehensive mechanical integrity program, along with specific standards for carbon black oil and tail gas, is designed to prevent leaks. Every plant is required to report and address any leaks – referred to as "losses of primary containment" (LOPC) – on a monthly basis, even those as small as drips. Each plant has emergency response plans in place for both minor and major leaks, and Orion has a global response plan for significant incidents.

To further minimize leaks, we prioritize strengthening mechanical integrity, evaluating the effectiveness of measures to prevent recurring issues, and enhancing root cause investigations. In 2024, we significantly increased capital investment in mechanical integrity, an initiative that will enhance reliability and reduce LOPCs.

We are working to expand our waste recycling, reuse and recovery capabilities, such as using residual tail gas from our production processes, as well as retrieving reusable flexible intermediate bulk containers (FIBCs) from our customers to be refilled with carbon black a maximum of five or six times.

> We did not have any major spills of oil or other toxic waste in 2024. We monitor and report very small leaks and losses of primary containment and then take action to resolve them.

Production waste intensity

25.4 kg/Mt

Waste

Waste	Unit	2024	2023	2022
Total waste	K/MT	**23.0**	25.1	14.1
Total hazardous waste	K/MT	**3.4**	2.4	3.3

Relative to the total amounts of carbon black oil and carbon black that we produce, Orion creates very little waste. Fluctuations over the years reflect different levels of maintenance operations, for example, variations in the need to clean and reinspect large tanks.

Circularity

As a technology leader in the carbon black industry, we are committed to developing products that help our customers advance their sustainability goals. Our circularity initiatives are managed on a global scale to ensure consistency across the business and are strengthened through collaborations with research institutes and universities. Our long-term success relies on continuous innovation – particularly in the development of alternative raw materials, circular products, and specialty grades that support the carbon transition.

Circular products

In December 2024, our operation in Jaslo, Poland, reached a milestone with the successful positioning of two large tire pyrolysis oil (TPO) tanks, which are essential components in Orion's circular carbon black manufacturing process. Designed to receive and store TPO for the furnace black reactors, these new TPO tanks will enable Orion to produce circular carbon black on a large scale for the first time in our history. This project is scheduled for operational startup in Q1 2025. Initially, we will produce two circular products in Jaslo: ECORAX® Circular 200 and 210. Other grades may be easily added.

Orion invested in French tire recycling company Alpha Carbone during 2024, in a partnership that will enable Alpha Carbone to scale up and produce commercial volumes of TPO and recovered carbon black. The partnership also includes a long-term supply agreement with Orion as the exclusive customer for Alpha Carbone's TPO. The Alpha Carbone plant is expected to start up in late 2025.

Bio-circular products

Produced at our plant in Jaslo, Poland, ECORAX® Nature 200 and Nature 205 are our bio-circular carbon blacks. Sold to major tire manufacturers, they are made from second-generation, animal-free, bio-based feedstock that does not compete with the food chain.

All our circular and bio-circular grades are produced using the mass balance principle and are International Sustainability and Carbon Certification (ISCC) Plus certified. They have been tested and approved by customers as a replacement for standard carbon black grades. Circular products have two potential environmental advantages for our stakeholders: reducing the carbon footprint of products that include carbon black; and reducing waste.

Products that support electrification

Carbon black has significant potential to support the transition to a low-carbon economy. Our advanced acetylene-based conductive additives help to improve the performance of lithium-ion batteries and high-voltage cables, supporting the electrification of mobility and energy systems. PUREX® LS 18 low-conductivity carbon blacks for rubber components further support this transition, by enabling automobiles to be constructed with more aluminum for lighter weight and better energy performance.

Packaging

We are striving for circularity in our value chain and have implemented packaging solutions to minimize waste and increase loading efficiency. We are also collaborating with our supply chain partners on the use of sustainable and recycled materials. For details on how we manage our packaging, see page 50.

Partnerships

Carbon black supports sustainability by making products stronger and more durable. Many products, such as vehicle tires or rubber goods, would simply not be viable without it. In tires, for example, different grades of carbon black provide essential qualities such as wear resistance and stability, so they can last as long as possible. Elsewhere, among its many applications, carbon black enhances the performance of polymers, reinforces mechanical rubber goods and provides high-performance coatings for a wide range of products.

Our customer partnerships include:

- **BlackCycle**
  Orion was the technology partner in this EU-funded project to develop circular carbon black, which was led by Michelin. The project concluded in October 2024 and is now in its commercial implementation phase.
- **Kumho Tire**
  Orion continues to work with this Korean manufacturer to co-develop sustainable tires and materials. The project's scope includes developing tires using bio-circular feedstocks as well as carbon black made from TPO.

// Circular products have two potential environmental advantages for our stakeholders: reducing the carbon footprint of products that include carbon black; and reducing waste.

Circularity *continued*

FEATURE

BlackCycle

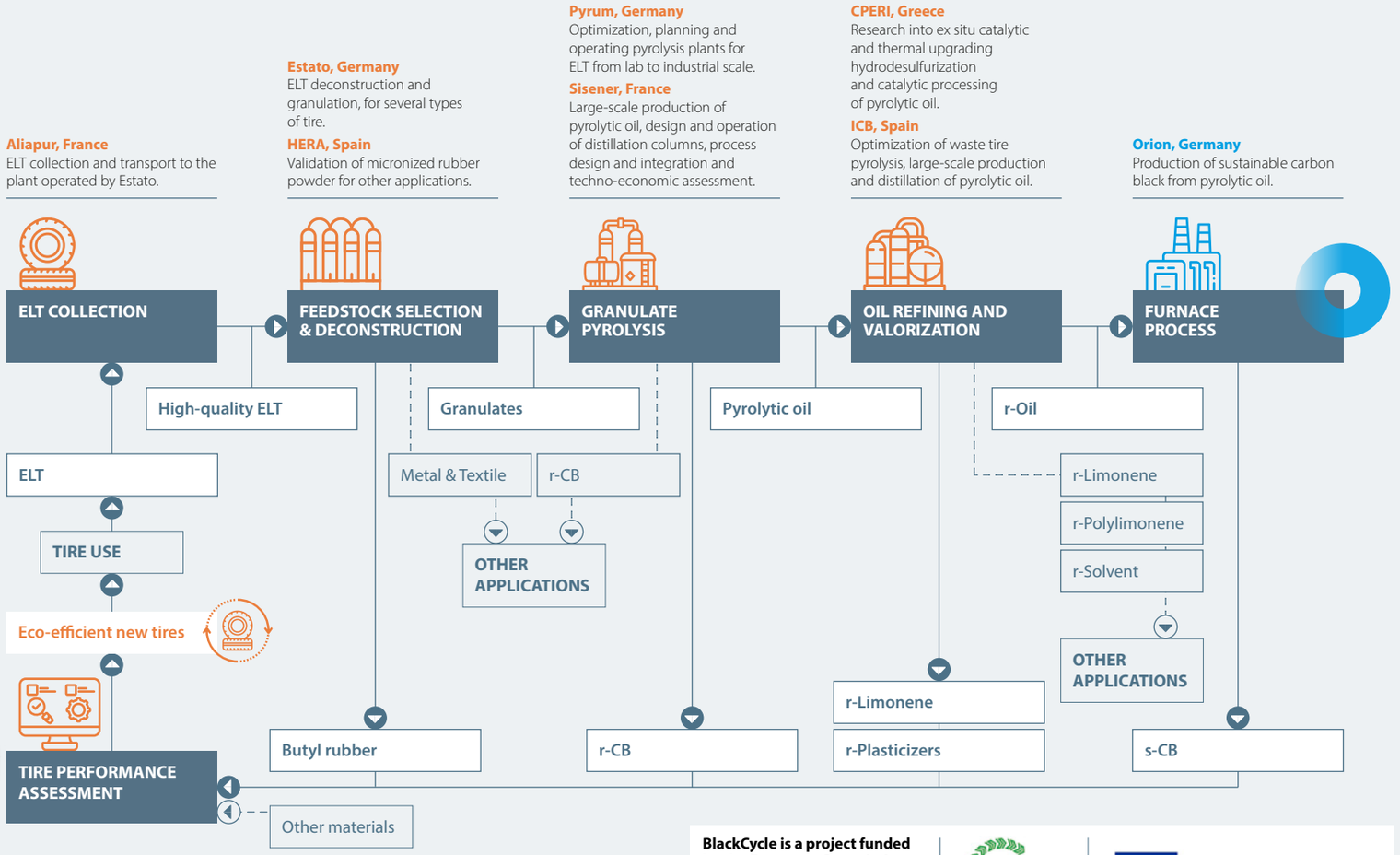
Launched in May 2020, BlackCycle was a €16 million project, majority funded by the EU, to promote circularity in the tire industry. Its goal was to "design world-first processes to produce new tires from end-of-life tires" (ELTs), creating a full-value chain from ELTs to raw materials for new tires, removing waste and reducing environmental impact.

The results of demonstrator tire examinations were reviewed at the final BlackCycle workshop in May 2024. BlackCycle is an important step toward a circular model for the tire industry, closing the loop for secondary raw materials such as carbon black and enabling them to be created from ELTs with 100% comparability to fossil-derived inputs. Key results from the BlackCycle LCA show that the BlackCycle value chain can significantly reduce climate change impacts compared to both alternative technologies considered, including energy recovery via incineration of end-of-life tires (ELTs) in cement kilns and chemical recycling.

BlackCycle has now moved from the project to the implementation phase.

Orion's role in BlackCycle was to develop grades of sustainable carbon black, alongside other partners who built tire deconstruction machines, created demonstrator tires and enhanced the pyrolysis process.

COOPERATION ALONG THE VALUE CHAIN



BlackCycle is a project funded by the European Commission
Project number: 869625

BLACK CYCLE
Move to the green revolution

Horizon 2020
European Union Funding for Research & Innovation

Social

//
At Orion, our success is rooted in the strength of our people and the culture we create. By valuing different perspectives and creating an environment of respect and growth, we empower our people to collaborate, innovate, and reach their full potential."

Pat Tuttle
SVP, Global Human Resources

MATERIAL TOPICS

OTHER TOPICS

Our approach

Our deep commitment to our people and social responsibility is central to our identity as a company. Employees are the foundation of our business, and our ongoing success relies on ensuring everyone feels engaged, valued, and empowered.

Planning for the next workshop.

2024 ACHIEVEMENTS

Learning and development

We introduced two local leadership programs in 2024, in Korea and China. Conducted in local language, these programs were carried out in addition to our existing global leadership programs – Emerging Leaders, Orion Leadership Academy and Leaders of Leaders.

Career progression

We significantly exceeded our 20% internal promotion goal for 2024. This goal was established to focus on filling open roles through internal promotions/developmental opportunities vs. external hires. We achieved a 41% internal fill rate in 2024 by linking our leadership and development programs, role-based training, mentoring, succession planning and individual career planning initiatives to employee development.

Employee recognition

In 2024, as part of our recognition award program we introduced a new 'badge' system, where employees can be recognized by others for their achievements.

To achieve this, we focus on cultivating a positive workplace culture, promoting an inclusive, learning and challenging professional environment, and supporting employees' career growth and work-life balance. Beyond our organization, we are dedicated to being a valued and trusted partner in the communities where we operate and upholding safe and ethical working practices across our business and supply chain.

Our social strategy covers the following areas:

- **Talent management**
  Striving to be an employer of choice providing interesting and challenging work with competitive rewards and benefits. Offering learning and development opportunities, work-life balance and a welcoming and inclusive environment where everyone can belong, grow and thrive.
- **Occupational health and safety**
  Protecting our employees and contractors.
- **Product safety, quality and stewardship**
  Taking action to ensure the manufacture, sale, transportation and use of our products comply with applicable legal requirements.
- **Human rights**
  Supporting and promoting human rights throughout our value chain.
- **Communities**
  Enhancing knowledge, prosperity, health and quality of life in the communities where we live and work.

Talent management

We aim to create a workplace of belonging where our employees are informed, engaged and enabled to do their best work. We provide opportunities for learning and personal growth in an environment where creativity and innovation are encouraged.

Orion leaders touring the plant in Orange, Texas.

OUR PEOPLE STRATEGY, ORION & ME, HAS FIVE AREAS OF FOCUS:

TO ACHIEVE THIS, WE PLEDGE TO:

CULTURE
Creating an accountable, inclusive and respectful workplace

Conduct anonymous global employee engagement surveys on a regular basis with a third-party provider

ENGAGEMENT
Communications and actions to ensure employees are motivated to work at Orion

Ensure the voices of all our employees are heard and help shape our priorities and actions

LEARNING
Structured skills and professional development training

Offer development planning, mentoring and succession planning resources to support learning and career growth

DEVELOPMENT
Mentoring and career planning and advancement

Ensure employees receive regular performance alignment and feedback

REWARDS
Competitive pay, bonuses and merit increases, performance recognition and pay equity

Create an enjoyable, spirited work environment that rewards, performance, innovation and collaboration at all levels

Talent management *continued*

Employee engagement

Measuring employee engagement is critical to our efforts to ensure employee satisfaction and retention. Alongside various suggestions systems, our centralized survey, which is carried out every 18 months by a specialist third party in local languages and on an anonymized basis, is our principal way of measuring employee engagement and enablement.

Our next survey will be carried out in early 2025. Initiatives that have been implemented based on feedback to our 2023 survey include a new mentoring platform, a new language learning platform, role-based training programs and new development plan targets.

Development

To develop leaders, we offer individual development plans, a mentoring program and succession planning, as well as three leadership programs: Emerging Leaders, Orion Leadership Academy and Leaders of Leaders Agile Management.

2023 engagement survey

76%

of employees completed the 2023 employee engagement survey (bi-annual survey, next one planned for the second quarter of 2025)

Average training hours per employee year

66hrs

Voluntary turnover rate

We maintained a

3%

voluntary turnover rate in 2024

Performance reviews

97%

of eligible employees received an annual performance review vs. 94% in 2023

CASE STUDY

Orion Leadership Academy

The Orion Leadership Academy is part of a series of programs designed to provide leaders at all career stages with essential leadership skills. The Academy equips participants with tools for building and managing teams and company culture, while also enhancing personal development, decision-making, and strategic thinking.

This program spanned four months, with the first and final modules delivered virtually in half-day sessions. The core module was an in-person, two-day session held in Frankfurt, Germany. In 2024, more than 60 participants from the Americas, APAC, and EMEA successfully completed the program. The Orion Leadership Academy focused on three key areas: 1) gaining insight into personal leadership styles, motivations, preferences, and blind spots; 2) fostering high-performing teams, managing conflicts, and improving communication; and 3) strengthening leadership presence.

"The Orion Leadership Academy gathered colleagues to shape their leadership posture. This program focused on effective communication, inspiring others and transforming conflictual conversations into fruitful exchanges. Participants engaged in activities that sharpened their leadership skills, enabling them to lead with confidence and clarity."

Awa Bernard
Global Talent Leader

Orion & Me

We are a global organization where regardless of location, language, gender or orientation, our employees are empowered to express opinions, own their processes, take decisions and be responsible for their actions.

Giving a presentation in Orion's main innovation hub in Cologne, Germany.

Focusing on people and on building an inclusive and accountable culture, Orion & Me programs drive innovation, enhance decision-making and allow employees to feel valued and engaged. They include mentoring, training and awareness-raising programs, and the fostering of employee resource groups.

Love HR, Hate Racism

Our HR team uses this platform to network with other companies and learn and share best practice to ensure there is no room for racism or exclusion in corporations.

Employee resource groups

EmpowHER

This Orion Employee Resource Group advocates for women in the workplace, celebrates successes and equips colleagues to better support the women they work with. The group holds various training, networking and awareness sessions, including a session with our Board of Directors member Kerry Galvin where she highlighted her journey and how she found success her own way.

Society of Women Engineers

Orion supports this advocacy group that aims to empower women to achieve their full potential in careers as engineers and leaders. We sponsor membership and send our female engineers to national delegations and conferences to represent Orion. In addition, we sponsor students to participate in the various Society programs.

Women in Science

Orion supports this advocacy group that aims to raise broad awareness and have the voice of women scientists widely heard.

Working at Orion's lab in Carlstadt, New Jersey, USA.

"Orion's EmpowHer resource group celebrated its one-year anniversary growing from 24 to 83 members. The group remains focused on its mission to empower, develop and highlight the women of Orion. I recently enjoyed the privilege of meeting with this global group to share my own journey and how I found success. I was impressed by the level of professionalism, enthusiasm, commitment, and confidence demonstrated by the group's members. As a member of the Board of Directors of Orion, I am extremely appreciative to see the impact EmpowHer is having on building an inclusive community to further enable Orion's success."

Kerry Galvin
Member of Orion's Board of Directors

Occupational health and safety

At Orion, occupational health and safety are fundamental to our core values. Safety is ingrained in our culture, and we integrate robust protocols and training programs to eliminate or reduce risks to our employees, communities, and the environment in which we operate.

Touring a plant in Jaslo, Poland.

We are dedicated to ensuring a safe and healthy workplace for our employees and contractors, striving each year to achieve zero recordable incidents, lost time cases, and process safety events.

Our operational safety standards and procedures are based on the principles outlined in the ISO 45001 Safety Management System, the American National Standards Institute/American Society of Safety Professionals (ANSI/ASSP) Z10.0, and the Occupational Safety and Health Administration Voluntary Protection Programs (OSHA VPP). Risk assessments have been conducted for activities at our operating sites, and we have formalized applicable rules and best practices within our operating manuals. As part of our ongoing commitment to enhancing safety standards, we are a member of the American Chemistry Council (ACC) and are implementing the Responsible Care Certification 14001 across our Americas plants.

Before maintenance or other site activities commence, our work permit process includes a thorough safety analysis. This ensures all personnel involved are fully informed of potential hazards and that necessary precautions are in place to create a secure working environment. We actively report and analyze near misses to strengthen our safety rules and procedures. Our safety protocols are consistently updated to align with best practices and evolving industry standards. Recognizing that safety is a shared responsibility, all our operating sites have joint management-labor safety committees, ensuring employee representation and participation.

Employees continue to be both encouraged and empowered to report safety concerns via our Gensuite® EHS platform, where issues are tracked by the EHS and plant managers. This reporting process is critical to maintaining a safe work environment. We aim to resolve all concerns within 30 days, and any outstanding issues beyond this timeframe are monitored in our global monthly KPI report.

Service contractors are governed by our GMS standards and procurement procedures. We utilize the Avetta platform to ensure that service contractors meet our safety and environmental criteria. If a contractor falls below our required safety standards, an action plan and approvals from both EHS and operations managers are required. New suppliers are evaluated through Avetta and an internal assessment process to ensure they comply with our safety expectations.

To maintain high safety standards, we conduct regular training for employees and contractors, as well as EHS compliance audits to prevent any procedural or substantive gaps. We continuously enhance our GMS standards and process safety efforts, fostering a collaborative and sustainable safety culture that empowers our workforce to actively engage in workplace safety.

WE ENGAGE EMPLOYEES IN THE FOLLOWING AREAS

- Improving access to work permits.
- Transparent reporting of near miss, root cause elimination and small losses of primary containment (LOPC).
- More focused and effective action to eliminate incidents.
- Ensuring a timely response time to employee safety concerns.
- Improving mechanical integrity and accelerating access to equipment upgrades.
- Encouraging employees to be comfortable confronting a colleague who you observe working unsafely, regardless of their level within the company, and seeing this as an act of caring.

Our people are critical to our success and sustainability as a business. We continue to uphold best-in-class standards that safeguard employees and communities.

To read more about EHS compliance and governance, please refer to page 45.

TRIR (per 200,000 hours)

0.35

(vs 0.34 in 2023)

DAFW case rate (per 200,000)

0.29

(vs 0.23 in 2023)

Total incidents that occurred in 2024

5

lost time injuries (vs. 3 in 2023)

6

OSHA recordable injuries (vs. 6 in 2023)

0

fatalities (vs. 0 in 2023)

Product quality, safety and stewardship

Orion takes a comprehensive approach to ensuring that the manufacture, sale, transportation, and use of our products comply with all applicable legal requirements.

Orion's plant in Borger, Texas.

Our carbon black products are specifically designed to be safe for handling and use, fully compliant with legal regulations, free from significant risks to human health and the environment, and optimized for superior performance in customer applications.

To maintain product integrity, we implement rigorous process controls, conduct shipment sample testing, and follow a structured change management process. This ensures that any modifications – such as new machinery or process adjustments – do not negatively impact product quality or performance. We regularly assess customer requirements and conduct periodic reviews to confirm regulatory compliance. Additionally, in-application testing is performed at regular intervals to verify product consistency and performance.

Our adherence to ISO 9001 standards ensures we maintain site-specific, regionally or globally aligned processes that support product consistency, continuous improvements, and responsiveness to customer feedback. Across all production sites, we follow global management standards for product testing and evaluation, with internal and external audits conducted periodically to assess and refine our processes.

We closely monitor the quality and safety of our products to ensure they meet all regulatory requirements while providing detailed product information. In collaboration with research institutes and universities, we stay at the forefront of developments in product quality, safety, and health. We also supply comprehensive regulatory information, including best practices for safe handling, storage, and use.

Safety data sheets for all our products are accessible on the Orion website, available in multiple languages for all regions and countries we supply. Product Stewardship is overseen by our Environment, Health, and Safety team, while the Quality function is managed either by the Quality team or site management, depending on the issue. Any negative feedback undergoes thorough root cause investigation, and confirmed complaints are addressed through a "quality alert" system, ensuring proper documentation and communication across all sites.

Safety data sheets for all our products are available on the Orion website

PRODUCT QUALITY FRAMEWORK

Orion constantly checks and evaluates	Orion fufills international standards	Orion continuously controls and audits the carbon black quality
Registration status of carbon black	Global chemical legislation	Safety Data Sheets (SDS)
Nano status of carbon black	Food contact regulations	Product Safety Information (PSI) & Product Safety Statements (PSS)
Status on REACH and SVHC	PAHs (EU, FDA, GS mark, OEKO-TEX®, DHHS, etc.)	Trace substances/ impurities in carbon black

Human rights

While the topic of human rights was not found to be material through our double materiality assessment, we believe our long-term business success will only be achieved if human rights are acknowledged, respected and protected. Therefore, we continue to ensure strong human rights practices, setting a high bar for ourselves and our value chain, and we monitor potential risks.

Conducting tests in Orion's lab in Carlstadt, New Jersey.

Our Human Rights Policy sets out the principles embedded in our business operations, values and culture to ensure Orion does not engage in activities that directly or indirectly violate human rights. We respect and support international standards of human rights, social, cultural and labor rights.

We aim for:

- Zero fair bargaining violation findings.
- Biannual overtime audits.
- Annual competitive pay practices benchmarking.

Standards

The following global standards are embedded in our policy and practices:

- The United Nations Guiding Principles on Business and Human Rights.
- The United Nations Universal Declaration of Human Rights.
- The International Labor Organization's Declaration on Fundamental Principles and Rights at Work.
- The International Covenant on Civil and Political Rights.
- The International Covenant on Economic, Social and Cultural Rights.
- OECD Guidelines for Multinational Enterprises.

Principles

We adhere to human rights principles in many areas including:

- Ethical business conduct.
- Safe and healthy workplace.
- Forced labor and human trafficking.
- Freedom of association and collective bargaining.

See our Human Rights Policy for further detail. Employees, business partners, customers and other stakeholders are invited to report violations of our human rights policy via our Whistleblower Portal.

Community impact

Earning and maintaining the trust and acceptance of our local host communities is essential for our business continuity and our license to operate. While community impact was not found to be material through our double materiality process, we are committed to contributing to community development and to engaging with our local neighbors and other stakeholders transparently and on an ongoing basis.

Employees and their families join a fundraising walk in Houston for the Leukemia & Lymphoma Society.

Our charitable giving policy is designed to strengthen connections between our sites and the communities where we operate while also helping to protect our license to operate. Additionally, we support groups such as emergency responders, who play a vital role in our operations but may not benefit directly from them. Our charitable giving budget is determined as a fixed percentage of our budgeted adjusted EBITDA. Under this policy, each site develops its own local community engagement plan to ensure our initiatives are aligned with the specific needs of the community.

We support local communities in three ways: through direct donations, by matching employee contributions to approved beneficiaries, and by encouraging employee volunteering. Beneficiaries are selected at the site level and shared with regional and group controllers, as well as our Chief Compliance Officer.

In 2024, 81% of our sites engaged in charitable giving vs. a target of 100%.

DISTRIBUTION OF CHARITABLE GIVING IN 2024

Community support

75%

First/emergency responders

4%

Charitable organizations

21%

CASE STUDY

Diagnostic support for the community

Orion's Jaslo plant in Poland donated a modern diagnostic tool (biopolar resectoscope) to the local hospital, providing it with additional prevention and treatment capability, mainly in the area of gynecology. This service is now available and will allow about 400 medical visits and treatments per year, meaning patients from Jaslo and the surrounding areas will no longer need to travel to other districts for these consultations.

Community impact *continued*

CASE STUDIES

New ambulance in Italy

In Ravenna, Italy, Orion financed an ambulance for the municipal rescue team (Pubblica Assistenza).

In just 6 months, the ambulance has already travelled 33,000 km and carried out 887 missions. This includes 20,000 km for 507 emergency callouts and 13,000 km transporting people between their home and hospitals.

Help for schoolchildren in South Africa

The Nelson Mandela Bay plant donated 500 chairs to the Khwezi Lomso Comprehensive School in Zwide, about eight kilometers from the plant. The school previously had a shortage of chairs, meaning many children had to sit on the cold floor.

Celebration and education in China

Volunteers in Qingdao partnered with a local public welfare organization to hold a birthday party for children who have lost parents. At the event, children learned how carbon black is produced with energy recovery and environment protection, and how Orion supports a sustainable environment to protect the planet for future generations.

> It was a very meaningful activity to give back to our community and to let more people know how carbon black is essential to our life."
>
> **Howard Wang**
> Head of China Manufacturing Operations

Funding school supplies in Texas

Orion joined other companies in the city of La Porte to raise more than $136,000 for the local school district. The funds go to the La Porte Education Foundation, which provides micro grants to teachers for books, software, science equipment and a variety of other classroom necessities. It's a sad reality in the U.S. that teachers must often use part of their small salaries to buy their own supplies because school budgets are so tight. With the support of local industry, far fewer teachers in La Porte need to finance their own instruction. As Orion builds a plant in the city, the company is exploring additional opportunities to contribute to the community.

Governance

//
At Orion, we believe compliance and fair practices are the fundament for our business success. Transparency, integrity and ethical practices are the goalposts in our conduct amongst ourselves as well as with others."

Christian Eggert
SVP, General Counsel and Chief Compliance Officer

MATERIAL TOPICS

ENTITY-SPECIFIC MATERIAL TOPICS

Our approach

We believe that integrity is the foundation for earning the trust of our stakeholders, which our business success depends on.

Senior leaders tour plant in Orange, Texas.

This integrity is expressed through our commitment to compliance in the way we conduct our business. We expect a high degree of social, legal and ethical compliance from all employees and those with whom we do business. Orion does not tolerate corruption, bribery, fraud, money laundering, anti-competitive practices, conflicts of interest, child labor or threats to information security.

Governance structure

The Board of Directors of Orion group functions as the group's highest decision-making as well as supervisory body. The Board of Directors advises our senior executive management and oversees its conduct. Board members are elected by our shareholders at the Annual General Meeting. The Board performs its tasks partially through dedicated committees, including the Nominating, Sustainability and Governance Committee. This Committee oversees environmental, social and governance (ESG) matters and makes recommendations to the full Board.

Our CEO is accountable to the Board for sustainability and has the mandate for strategy, risk management, opportunity capture, the setting of targets, and the monitoring and reporting of our performance and progress, resource allocation and culture. The CEO is supported by direct reports who ensure that the Board-mandated responsibilities connected to sustainability are embedded in our wider global management framework as well as into our compensation approach.

Further information on the composition of the Board, its committees and responsibilities can be found on our website and within our Corporate Governance Guidelines.

Integration of sustainability into Orion's management framework

The Head of Corporate Sustainability reports to the Company's CFO and liaises regularly with the Board's Nominating, Sustainability and Governance Committee. He is responsible for executing the company's Sustainability strategy and for the monitoring, reporting and disclosure of group-wide sustainability activities. He receives feedback from functions across the business to ensure the ESG strategic framework is embedded.

- **Managers**
  ESG aspects are incorporated into short- and long-term performance incentives. Our environmental health and safety (EHS) department reports to the Senior Vice President of Global Operations and is active at all Orion sites.
- **Employees**
  ESG targets are a factor in the group's annual bonus program, in which our employees participate (except in South Korea, where the annual bonus program is governed by a collective bargaining agreement). ESG aspects of incentive plans are linked to our EcoVadis score so that they can be independently evaluated.
- **Operational and financial targets**
  Targets are oriented toward the reduction of CO_2 emissions. The more carbon black that can be produced from our feedstock, i.e., the higher the yield, the less carbon is emitted as CO_2 into the atmosphere.
- **Processes**
  ESG risks are systematically integrated into our risk management system and undergo ongoing evaluation and differentiation. This is done for extreme weather events, for example, but also for other climate risks that are critical to our business model. We also integrate social risks, e.g., the shortage of skilled labor, vocational training gaps and the management of health and safety.

OUR GOVERNANCE STRUCTURE

Board of Directors

Board of Directors' Nominating, Sustainability & Governance Committee

Chief Executive Officer

Sustainability Committee

Corning Painter, CEO (Chair)

Jeff Glajch, CFO

Carlos Quinones, COO

Pat Tuttle, SVP Global HR

Christian Eggert, SVP, General Counsel and Chief Compliance Officer

Jochen Rother, Head of Corporate Sustainability (Facilitates)

Further information on the composition of the Board, its committees and responsibilities can be found on our website and within our Corporate Governance Guidelines.

Business ethics and compliance, corporate culture and risk management

The level of risk and legal compliance standards can vary from country to country in which we operate or do business. For matters such as the prevention of corruption, we believe that it is important to have an enhanced, strict common standard that uniformly applies to all of Orion and meets or exceeds local requirements.

Colleagues meeting in Cologne, Germany.

In addition to general adherence to laws, we have codified best practices into a Code of Conduct. This code applies to all Orion employees and associated individuals who provide services for or on behalf of Orion. In addition to our Code of Conduct, a Supplier Code of Conduct specifically targets the suppliers we work with.

Compliance is assured through proactive engagement at all levels of the organization, starting with our CEO and Board of Directors, and the compliance controls in place, as well as verification processes, which include internal audits. We have a whistleblower program (managed by our General Counsel in his responsibility as Chief Compliance Officer) that assures anonymity of whistleblowers for countries in which this is allowed. We also verify compliance with the Code of Conduct through a semi-annual certification process in which Regional Compliance Officers report on issues of concern. These matters are analyzed, and appropriate actions are taken where warranted, including investigations. Our compliance is regularly reviewed by management and, depending on the topic, reported to the Audit Committee or the Nominating, Sustainability and Governance Committee of the Board of Directors.

We conduct mandatory compliance training for all employees, including annual web-based training and (as far as feasible) classroom training. Compliance training is conducted by Orion's legal department, in some instances with the support of local legal counsel, under the supervision of the Chief Compliance Officer. It is designed to familiarize our employees with the Code of Conduct, our compliance management system and the most important policies accompanying it, such as the anti-bribery, anti-trust and insider trading policies. Our goal is to enhance the awareness of potential risks.

We aspire for 100% of our workforce to attend compliance training each year but have set our target at 95% to account for computer access and employees in transition.

Our Board has adopted a Code of Ethics for Senior Financial Officers, applicable to the Chief Executive Officer, Chief Financial Officer and Chief Accounting Officer, in order to:

- Promote honest and ethical conduct including the ethical handling of conflicts of interest.
- Promote full, fair, accurate, timely and transparent disclosure.
- Promote compliance with applicable laws and governmental rules and regulations, NYSE Rules, accounting standards and Company policies.
- Deter wrongdoing.

The Code of Ethics for Senior Financial Officers is complemented by the Company's Clawback Policy, which applies in the event of material misstatements in our financial reporting. In addition, our Board has adopted Corporate Governance Guidelines which describe the Board's view on several governance topics. The Corporate Governance Guidelines, along with the charters of the Board committees and the Company's Code of Conduct as well as the Company's Code of Ethics for Senior Financial Officers, provide the corporate governance framework of Orion. Our Corporate Governance Guidelines and the Company's Code of Ethics for Senior Financial Officers can be found under "Investors and Corporate Governance" on our website.

> We conduct mandatory compliance training for all employees, including annual web-based training and (as far as feasible) classroom training.

100%

Total employees were trained on anti-bribery and anti-corruption policies in 2024

IMPLEMENTATION OF POLICIES

Our policies are aligned to meet international standards, regulation and frameworks. These are reviewed annually and updated as required.

List of policies:

- Code of Conduct
- Supplier Code of Conduct
- Code of Ethics for Senior Financial Officers
- Insider trading policy
- Anti-corruption policy
- Anti-trust policy
- Human rights policy
- Whistleblower policy
- Conflict minerals policy
- Political contributions policy
- Regulation FD policy
- Clawback policy
- OEC Governance Documentation

The Orion policies can be found online here

Business ethics and compliance, corporate culture and risk management *continued*

Environmental Health and Safety compliance

We maintain continued compliance with the Orion Global Management System (GMS) EHS standards, which are designed to uphold high EHS performance globally in our plant operations, and to meet or exceed local standards and regulations. Each manufacturing site has an EHS Manager and additional EHS professional staff are available depending on the size and complexity of the site. Each area also has a Regional EHS Manager who is supplemented by the Global EHS organization.

To identify and assure compliance with applicable regulatory requirements, site EHS use a range of tools, including:

- Access to EHS regulatory websites, industry associations and internal subject-matter experts.
- Annual regulatory compliance self-assessments as required by the applicable GMS standard.
- Periodic compliance assessment conducted by the Regional EHS Manager and the Global EHS organization.
- Monthly Compliance checks regulated by our compliance calendar in Gensuite®.
- Frequent interaction between the site EHS team and global EHS organization.

Self-assessments and internal audits are supplemented by third-party audits, whose results are reported to the Orion executive leadership team, documented, and tracked for timely closure. Global EHS compliance audits typically focus on environmental, occupational and process safety systems. The frequency of these audits ranges from one to three years, depending on the size and complexity of the operation and the corresponding level of EHS risk. The audit protocols are periodically reviewed by Orion and external EHS experts and updated where necessary to incorporate changes.

All internal and third-party findings are classified as either regulatory or non-regulatory findings and tracked in a database. If issues are identified, there is a rigorous audit closure tracking process in place that involves assignment of individual accountability, a fixed period for closure and continual status tracking until the audit finding has been closed. All our manufacturing sites are certified to ISO 9001 and ISO 14001 and undergo the required internal and third-party audits.

Jaslo, Poland.

Investigation and corrective measures

All EHS incidents within Orion are considered important and investigated as needed to prevent recurrence. Incidents are reported, evaluated according to severity to determine the appropriate classification, and investigated to determine the root causes. Incident learnings are summarized and communicated with the appropriate work group and the corrective actions are tracked to closure through Benchmark Gensuite®, an electronic database to facilitate an incident management system. This system is searchable by all employees so that they can learn from incidents at other sites.

The most significant incidents are discussed globally on a monthly basis to support the investigation process, share learnings and to get additional insight and suggestion from plants with similar experience. Investigation report information is automatically retained in the database and can be mined for trend analysis to be used for continual improvement in our facilities around the world.

EHS governance

The CEO has set the expectation for creating a healthy and safe working environment for everyone who works at any of our operating, research & development as well as administrative sites. The Head of Global Operations, supported by the EHS function, is responsible for establishing the standards, procedures and rules that must be observed at all operating Orion sites. Safety performance is monitored globally and locally, and corrective actions are taken where warranted. Site leaders are responsible for overseeing EHS performance at their respective sites, supported by EHS professionals and subject-matter experts. Safety performance forms a component of the executive team's performance reviews, which take place at regular intervals.

Safety incidents are reviewed by the operations function and the EHS function with a view to ensuring that corrective actions are taken not only at the site in question, but also at other sites where applicable. Significant safety issues are reported to and reviewed by the CEO and the Board of Directors.

Our long-term target is to maintain a culture that is characterized by strong teamwork and commitment to safety performance and supported by interdependent collaboration between employees and leadership.

Business ethics and compliance, corporate culture and risk management *continued*

Risk management

In its Global Risks Report 2025, the World Economic Forum (WEF) identified that in 10 years, 5 out of 10 risks will be environmental, with changes in our planet's life-support system and loss of biodiversity as the biggest global risks in near-term. This insight is important when reviewing our risk management strategy and approach for short- and long-term impacts. Risk management at Orion is a defined process of identifying, assessing and prioritizing potential risks, then working to mitigate or even circumvent those risks by actively monitoring, managing, controlling and reducing their probability. Our goal is to focus on negating the consequences of events that adversely impact the performance of Orion in terms of EBIT, cash and societal effects.

We assess the financial impact of operational risks within an 18-month time horizon and strategic risks over five years or longer. We operate a three lines of defense structure for risk:

- **First line**
  Business lines and corporate functions own and manage risks first-hand.
- **Second line**
  Chief Risk Officer, Risk Committee and subject matter experts carry out continuing risk oversight.
- **Third line**
  Board of Directors provides governance and periodic oversight of the second line.

IN 10 YEARS' TIME, 5 OUT OF 10 RISKS WILL BE IDENTIFIED AS ENVIRONMENTAL

(The World Economic Forum Risk Report 2024)

1st	Extreme weather events
2nd	Biodiversity loss and ecosystem collapse
3rd	Critical change to Earth systems
4th	Natural resource shortages
5th	Misinformation and disinformation
6th	Adverse outcomes of AI technologies
7th	Inequality
8th	Societal polarization
9th	Cyber espionage and warfare
10th	Pollution

We monitor advances in production technologies and develop and use renewable and circular feedstocks where this is economically feasible. Expert consultants support us to quantify our full value-chain GHG footprint and to develop a high-level GHG abatement roadmap, as well as to evaluate U.S. and EU sustainability disclosure requirements and to assess our assurance readiness. All Orion production plants identified location-specific climate-related risks, both acute (i.e., flooding) and continuously growing (i.e., water stress), covering potential impacts with 30-year time horizons. This will further support us in defining and prioritizing mitigation actions.

Part of the air emissions control system in the Ivanhoe, Louisiana, plant.

Business ethics and compliance, corporate culture and risk management *continued*

Sustainability risks and opportunities

RISK	MITIGATION
CO_2 price mechanisms could lead to increased costs Regulations such as the EU Emissions Trading System (ETS) will result in higher direct costs and pose a risk to our operations. Increases in the unit price of CO_2 certificates are expected and more severe curtailments of free credits are likely to be introduced. The EU ETS could influence us directly through the allocation of fewer free credits and higher offsetting hurdles via more expensive credit purchases. As a participant in an energy-intensive sector, Orion could also be indirectly impacted by our energy consumption from external sources. If carbon black is added to the EU's Carbon Border Adjustment Mechanism (CBAM), there would be opportunities and risks. We would compete with imports on a more level playing field but free credits would also be phased out more quickly.	Energy is a critical input in the carbon black production process. We are naturally incentivized to consume less energy because of its direct relationship to our profitability and competitiveness, not only to reduce costs, but also to increase our output and earnings from the same cost base. The more efficient our production technology becomes, the fewer greenhouse gases we emit. Carbon black is produced through processing carbon-rich feedstocks, typically waste streams from refining or coal processing, which would otherwise be burned for their value as fuels. Consequently, the more carbon we can extract from the feedstock, the less carbon is converted to CO_2. Further improvements in our efficiency will translate into higher yields, more products, fewer emissions and lower costs. It is worth noting that if we did not use these waste streams as feedstock material to make our product, solid carbon, they would largely be burned for fuel and emit roughly three times more CO_2. We continuously monitor and seek to always comply with regulations and reduce costs over the long term. CO_2 management is critical and integrated into our strategy and processes. We set appropriate targets in our corporate strategy and carefully monitor them. We also set an example in product development. Each year, we invest a significant amount of money and time in developing more efficient and higher-yield technologies, and in the exploration of renewable feedstocks. As the EU ETS will lead to higher operational costs and impact competitiveness of the European industry, the EU has introduced the Carbon Border Adjustment Mechanism (CBAM) that will introduce a levy on importers for the carbon embedded in their products. This levy should equal the price paid for carbon by domestic producers. The CBAM will be introduced gradually and will mirror a gradual phasing out of the free allowances under the EU ETS. This means that sectors will either be covered by the CBAM or they will continue to be entitled to receive EU ETS allowances.

RISK	MITIGATION
Raw materials are becoming scarce or more costly Irrevocably, the world is transitioning toward a less carbon-intensive economy; as a result, the demand for petroleum and coal will likely be reduced over the long term. Byproducts, residues and waste streams of the refining industry, such as slurry oil and coal tar, which are used as feedstock to produce carbon black, will be less readily available.	Our mitigation strategies include improving yields so that we need less of the traditional feedstocks; developing alternative sources such as renewable feedstocks or oil recovered from the end-of-life tire (ELT) pyrolysis process, as in the BlackCycle project; and gearing our production processes toward increased usage of raw material substitutes. Our investments in acetylene-based carbon black or other technologies, which do not use traditional feedstocks, strengthen the shift of our product mix away from fossil-based raw materials.

Business ethics and compliance, corporate culture and risk management *continued*

OPPORTUNITY

Upcycling to conserve resources

We are striving to reduce our demand for fossil-based raw materials, to conserve natural resources and reduce our environmental impact. We are demonstrating how it can be done with the BlackCycle project (see page 31). Carbon black is an essential component of tires.

Although the life cycle of a tire currently creates waste, recycling it into new high-value products could transform the entire industry in the future. The sustainable management of end-of-life tires through recycling is a big opportunity for us. Along with our research partners, we have identified circular solutions as an important strategic imperative.

Our starting point is tire pyrolysis, which involves heating end-of-life tires in a reactor and extracting oil from them to be used as a feedstock for making carbon black. A circular business model in the tire industry would reduce waste and/or the incineration of used tires, potentially making us the industry leader in bringing sustainable solutions to our customers.

OUR ACTIONS

We are investing in research and development with the goal of creating a circular product portfolio. With the BlackCycle project, we worked with 13 partners from different EU countries as part of an EU-funded public-private partnership that gathers all the necessary competencies along the circular value chain to ensure its success. We have also invested in Alpha Carbone, a French tire recycling company, in a partnership that enables the company to produce commercial volumes of tire pyrolysis oil (TPO). Orion will be the exclusive customer for Alpha Carbone's TPO and will use it to manufacture circular carbon black for tire and rubber goods customers.

OPPORTUNITY

Developing "green" carbon black

The demand for "green" or bio-circular carbon black will continue to grow. Using oil made from renewable feedstocks is already technically feasible. This has been demonstrated by PRINTEX® Nature 11 and ECORAX® Nature 12, our first generation of renewable carbon blacks from vegetable oils. We believe that using renewable oil as a feedstock is one of the most capital-efficient means of decarbonizing the production process within the confines of currently visible technology trends. However, there are several challenges along the road to fully substituting renewable oil for fossil fuels in carbon black production.

OUR ACTIONS

We are committed to meeting current challenges by continuing our research and exploring various types of renewable oil for our production process. We research internally and seek collaborations with alternative oil producers. Non-edible sources are especially important because they do not conflict with other important sustainability initiatives. For example, we are working with the RISE Research Institutes of Sweden – a state-run research institute collaborating with universities, industry and the public sector – to assess the feasibility of producing carbon black using renewable oil derived from forest products as feedstock.

Renewable oil under consideration includes among others non-edible industrial grade vegetable oils and oil derived from pine and spruce stem wood.

OPPORTUNITY

Global demand for electrification

The electrification of the economy, using renewable energy, is a common theme across many countries. We can contribute to this goal. Electric vehicles (EVs) are the most visible manifestation of this strategy and an important building block for the future of transportation. Lithium-ion batteries are at the heart of this technology and highly conductive additives play a critical role with EVs. Less visible but also essential is upgrading our electricity grids for offshore wind, distributed solar and widespread charging stations. Conductive carbons again have an important role to play in efficient high-voltage power distribution cables.

For lithium-ion EV batteries, conductive carbon additives such as carbon black, graphene and carbon nanotubes are used in cathodes. Our acetylene based conductive additives around the product family of PRINTEX® kappa 100 and new developments like kappa 400 provide high-purity additives at an attractive price relative to performance. Demand for conductive additives is expected to grow as the transition toward more electrification gains importance.

OUR ACTIONS

We believe that as a supplier of conductive additives, we have an important role to play to support the transformation of the sector and grow with it. For example, we recently broke ground on a new plant in La Porte, Texas, which will quadruple our production of acetylene-based conductive additives. We are also offering enabling solutions to our tire customers with our family of technically advanced carbon black to address the requirements of EVs. Because EVs are significantly heavier than internal combustion engine vehicles and have higher engine torque, they need tires that can handle greater weight and be more durable.

Supply chain management

Our procurement strategy is founded on quality, cost, delivery and compliance. However, we believe decisive actions are also needed along the value chain to transition toward a sustainable future.

Transporting sections of Orion's battery materials plant in La Porte, Texas.

We therefore focus on sustainable procurement, striving to work with suppliers that are in line with our sustainability efforts. We work with suppliers and subcontractors to ensure their compliance with the applicable laws, regulations and our core values and standards as expressed in our Supplier Code of Conduct, which has a focus on suppliers' sustainability practices. The Supplier Code of Conduct is an integral part of our General Terms and Conditions for purchasing.

90%

of Orion procurement teams trained to identify and overcome purchasing risks around social, ethical, and environmental practices in 2024

96%

(by value) of Orion's targeted supplier contracts in 2024 aligned to ESG

24%

recycled of reusable FIBCs in 2024

What we expect from our suppliers

We look at the entire value chain, which includes the suppliers that supply us with feedstocks, chemical additives, process equipment, packaging materials, maintenance and repair services, engineering services, logistics services and other professional services. We aim to have all our suppliers comply with our Supplier Code of Conduct and to act responsibly in the management of their ESG risks, particularly in the following areas:

- Environment.
- Health.
- Safety.
- Labor (e.g., working conditions, the right to collective bargaining).
- Business ethics.
- Human rights (e.g., prohibition against the use of underage workers and forced labor).
- Social policy matters.
- Water consumption.
- Sustainable procurement.
- Disclosure requirements.

We use the EcoVadis platform to ensure a high level of transparency along our global supply chain. At the end of 2024, 360 suppliers responsible for approximately 53% of our relevant spend (suppliers with whom we spend over $10,000 per annum) were assessed by EcoVadis or other recognized third-party assessments. EcoVadis annual assessments and ongoing "360° Watch Findings" offer high visibility and tracking into any CSR-related impacts of suppliers. Our goal is for at least 60% of our spending (value based) to be generated with CSR-assessed suppliers by 2029. We monitor our progress towards this target on a regular basis.

To manage our supply chain's contribution to our Scope 3 emissions in the medium term, we developed a model in partnership with a sustainability consultancy to estimate our Scope 3 emissions share (emissions per dollar of spend and volume of purchased carbon black oil) generated by the supply chain which consist of our Category 1 "Goods and Services" and Category 2 "Capital Goods" suppliers.

Supplier selection procedure

Our suppliers are selected and managed through global and regional collaboration. Suppliers are typically first vetted for financial performance, quality aspects, warranties, pricing and payments terms. For CSR-related qualification, we use a risk-based approach that builds on a holistic CSR assessment conducted via third parties such as EcoVadis. Depending on the assessment results, we conduct follow-up inquiries and – where warranted – request affected suppliers to engage in corrective action.

Buyers undergo annual training via the EcoVadis Academy Platform covering all crucial aspects of sustainable procurement. To maintain the highest standard in sustainable procurement, we decided to ensure that our team will have regularly training in the awareness of purchasing risks related to sustainability. Therefore, in 2024 we introduced a new target to have at least 75% of the procurement team trained annually to help them identify and overcome purchasing risks around social, ethical, and environmental practices. In the first year, 90% of the team were trained.

// We look at the entire value chain, which includes the suppliers that supply us with feedstocks, chemical additives, process equipment, packaging materials, maintenance and repair services, engineering services, logistics services and other professional services.

Supply chain management *continued*

New hires receive onboarding training in sustainable procurement to understand Orion's strategy, policies and procedures, as well as progress. In 2024, we carried out all scheduled sustainable procurement trainings for Orion procurement teams across all locations. The main topics were the implementation of sustainable procurement criteria in our purchasing processes, and the use of suppliers' sustainability scores in the process of awarding business and evaluating supplier performance.

We aim to have all our suppliers meet our most critical standards. Part of the vetting process includes the assessment of a supplier's compliance assurance basis. We help suppliers with less robust foundations to establish a compliance assurance baseline at an acceptable level and monitor their performance periodically. This process enables us to work with suppliers from developing economies, where our engagement not only provides quality employment opportunities for local economies but also enables our suppliers to adopt and incorporate sustainable values into their business and management practices. In 2024, around 98% of our relevant suppliers (by value) have agreed to comply with our Supplier Code of Conduct or its equivalent. In addition, 96% (by value) of Orion's targeted supplier contracts in 2024 included clauses on environmental, labor and human rights requirements.

Maintaining global standards

Our global digital procurement tools provide data transparency and accuracy, enabling us to apply consistent standards worldwide. They ensure a consistent and integrated flow of supplier spend data and serve as a universal access point to review supplier information. Data includes supplier performance information and vetting data as well as the relevant supplier certifications and contracts that are in place.

In 2024, 90% of Orion's procurement team were trained in social, ethical, and environmental issues within the supply chain.

Our efforts with respect to our environmental footprint include supporting our supply chain partners to minimize their own impact on the environment and to reduce CO_2 emissions from outbound freight.

We are striving for circularity in our value chain and have implemented packaging solutions to minimize waste and increase loading efficiency. We are also collaborating with our supply chain partners on the use of sustainable, reusable and recycled materials. We utilize railcars or bulk trucks whenever possible (~ 25 % in volume of carbon black shipments) a solution which is intrinsically reusable and avoids consumption of resources for packaging materials.

In 2024, 100% of plastic pallets used at all sites were reusable and contained at least 60% recycled materials. Moreover, 95% of all pallets used at our sites were reusable. We are working on solutions to meet our targets for paper bags and flexible intermediate bulk containers (FIBCs) (See page 58 for progress against these targets).

Up to 2023, paper bags used for packaging our final products were made only of virgin materials. After an intensive period of development and testing, we certified our first recycled paper bags. At present, however, only a few of our paper bags meet the minimum recycling or reusability criteria set out in our targets. Their implementation started in 2023 in EMEA and will be continued globally. In 2024, 6% of paper bags used at Orion contained at least 50% of recycled paper. For FIBCs, in 2022 we introduced new variants with a minimum of 30% recycled polypropylene and aim to achieve our target by 2029 at the latest. In 2024, 24% FIBCs used at all sites were recycled or reusable. We encourage our customers to use recycled materials for packaging and to collect packaging waste for reuse.

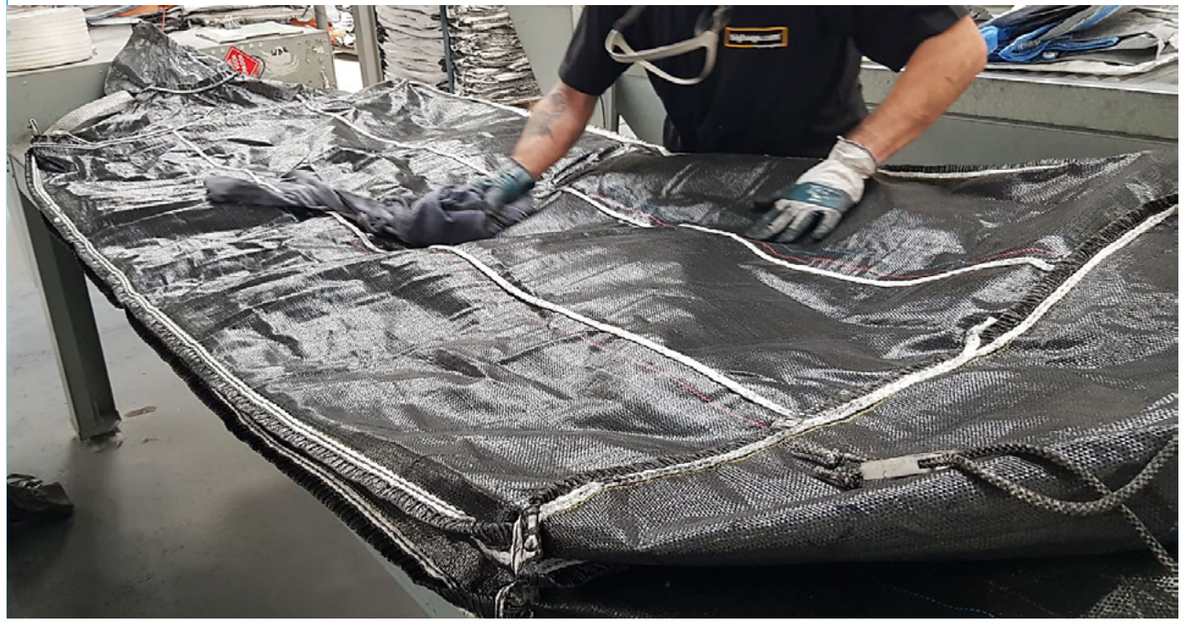
CASE STUDY

Extending the life cycle of FIBCs in Brazil

At our facility in Paulinia, Brazil Orion has been working in partnership with our packaging suppliers to extend the life of flexible intermediate bulk containers (FIBCs) that are used to transport carbon black, reducing their environmental impact.

The upgraded FIBCs can be used up to six times before disposal and are marked each time they are used, so operators know when to replace them. Made from polypropylene, the bags feature replaceable 'B lock' closures, which allow them to be emptied and refilled without damage to their fabric.

After they are used, the bags are cleaned, marked as used, and then reused following inspection. The B locks and closure threads can be replaced if necessary, and clear handling protocols help ensure bags are not damaged during use.



Public policy and engagement

Orion monitors policies and legislation that may impact our business, and if we deem it helpful or important, we provide information and views about issues.

Orion's government affairs team in Washington, D.C.

In the EU, we interact with Members of the European Parliament, European Commission officials and industry representatives. We provide information on how new regulations will impact our operations and businesses. In 2023, Orion joined the European Chemical Industry Council (Cefic) and became involved in relevant working groups that are preparing advocacy positions towards EU institutions. Cefic provides information on new regulations and shares intelligence about regulatory processes. Orion also engages with national governments and industry associations in EU member states like Verband der Chemischen Industrie (VCI) in Germany and Federchimica in Italy. Engagements vary from dialogues on policy and regulation, receiving politicians at our plants to applying for government grants.

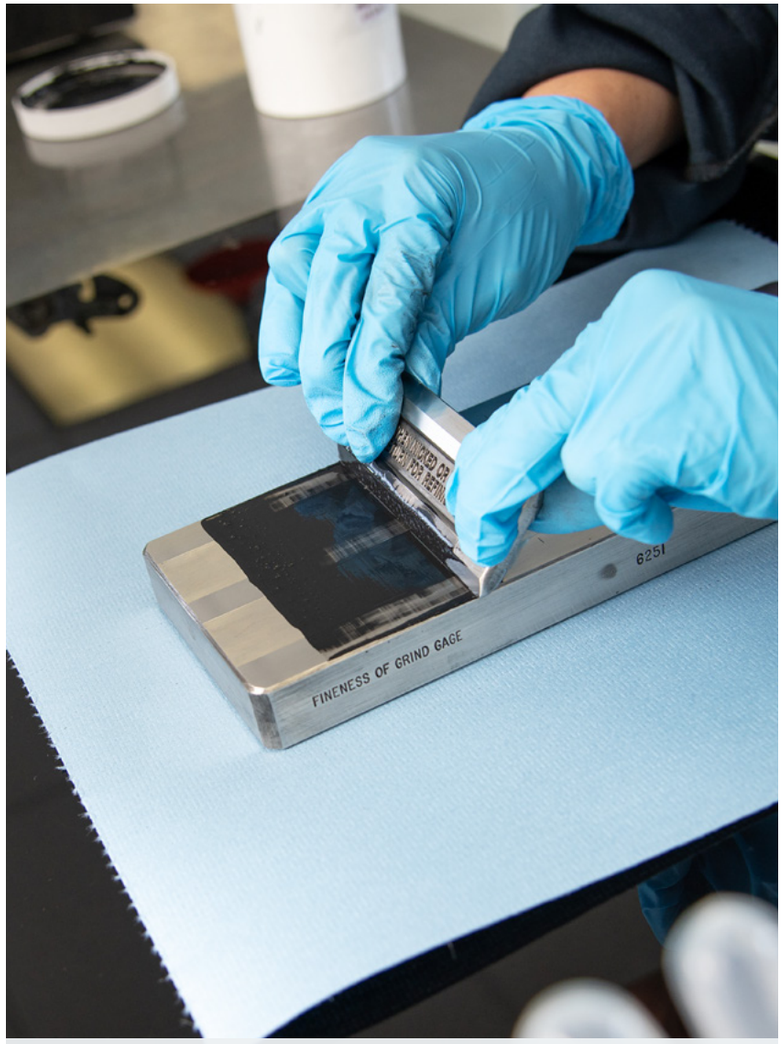
Outside Europe, Orion is a member of the International Carbon Black Association (ICBA), and in the USA, Orion is a member of the American Chemistry Council (ACC). Engagements vary from receiving politicians at our plants to applying for government grants.

Innovation and IP

IP Protection

Orion is aware that protection of intellectual property is extremely necessary. Orion holds and develops an intellectual property portfolio that aims at ensuring its freedom of operation and growth of its business.

We protect intellectual property by registering for intellectual property rights such as trademarks, copyrights, and patents. Orion's domain name matches the name used by our company. Furthermore, Orion holds and protects certain trade secrets and – if deemed necessary – establishes proof for being the legitimate owner in its research and development results.



Testing carbon black in Orion's lab in Carlstadt, New Jersey.

Cybersecurity

Cybersecurity

Our approach to managing cybersecurity is designed to ensure oversight and strategic leadership. Leading the Company's cybersecurity risk management is our Chief Information Security Officer (CISO) who has more than 10 years of experience in the field of cybersecurity.

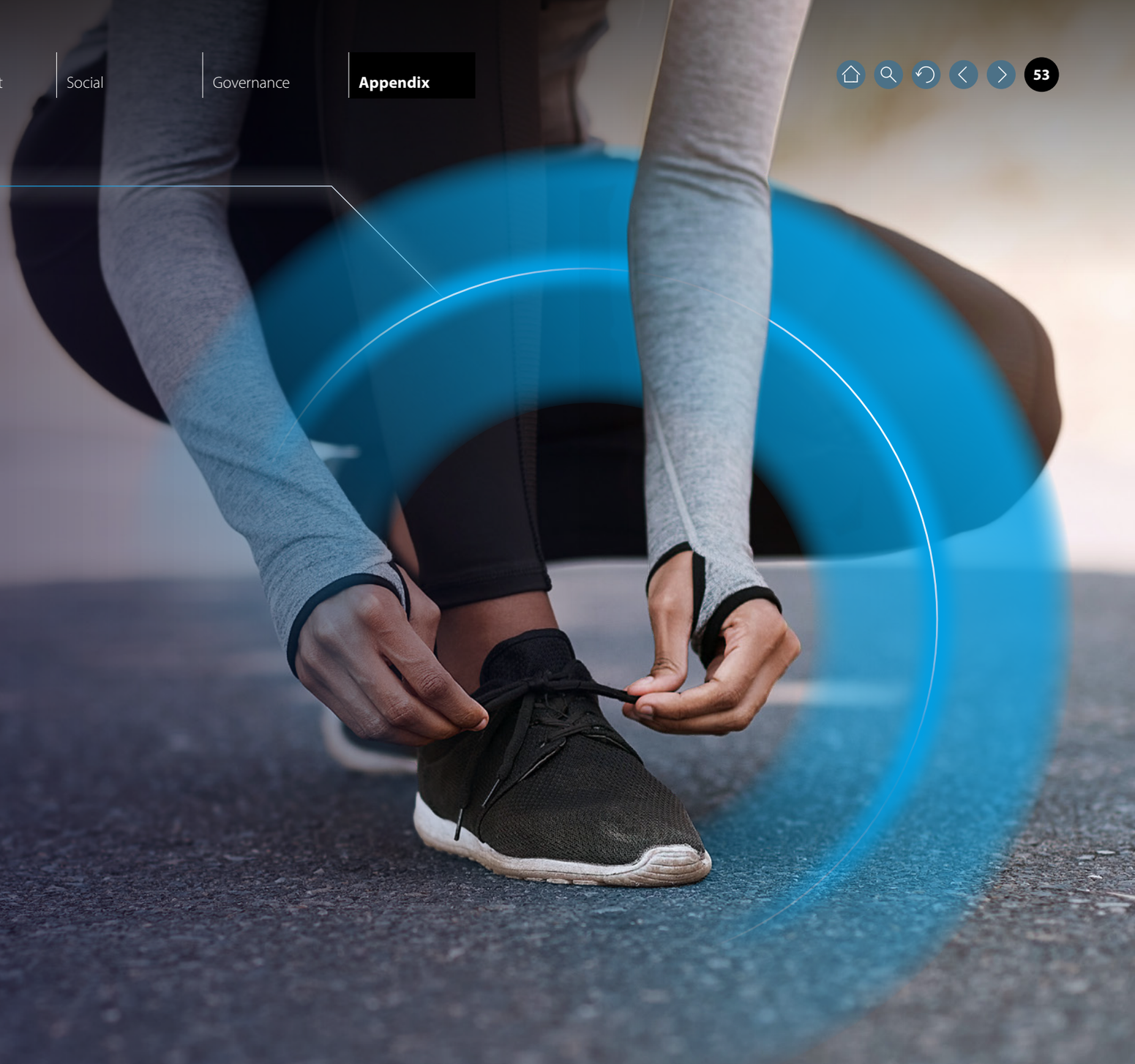
In the case of cybersecurity incidents, our CISO leads our Cyber Emergency Response Team and coordinates the respective disclosure process, which is a collaborative process by which our CISO is advised of cyber incidents and communicates and collaborates with relevant departments across the organization to develop and execute an appropriate response.

While our Board of Directors has delegated the continuous cybersecurity monitoring responsibility to the Board's Audit Committee, it remains apprised of relevant cybersecurity updates, risks and incidents. The regular updates on cybersecurity status, material cyber incidents and cyber risk management from either the Chief Information Officer (CIO) or (CISO) are provided to both our Board and Audit Committee. In addition, the Company's executive management, through its CIO, briefs the Audit Committee at each quarterly Audit Committee meeting on the Company's IT and cybersecurity status, including its Operational Technology systems. Our Audit Committee reviews also cover current IT cybersecurity scorecards, which reflect amongst others the status of awareness training programs, phishing incidents, penetration tests, endpoint security findings and an overall cybersecurity vulnerability assessment score. The Audit Committee regularly discusses identified security risks with senior management and reviews management proposed mitigation measures, as well as key cybersecurity initiatives and programs.

We perform IT external network penetration testing and table-top exercises and regularly benchmark our measures to top marketplace security standards such as the U.S. National Institute of Standards and Technology's (NIST) cybersecurity standards. Orion has implemented security systems designed to identify security risks to our business (including cybersecurity), protect our assets and be capable of responding effectively to security threats. A security hazard analysis and vulnerability assessment has been conducted at each facility and security standards have been met consistent with the specific risks identified. The site-specific security asset protection programs include perimeter protection, access control, security monitoring, incident reporting and emergency response planning.

Appendix

IN THIS SECTION



About this report

Structure

This report is designed to introduce general information about Orion's sustainability status and endeavors, as well as to communicate the results of our materiality analysis, which acts as the basis for the chapters: Environmental, Social, and Governance. The appendix shows the Global Reporting Initiative Index, a glossary of abbreviations and contact information. To ensure data integrity, we implemented a comprehensive data collection platform that serves to consolidate the ESG data from several departments, drive alignment and ensure data reliability throughout the ESG data collection process.

Scope and reporting period

The information stated about Orion in this Sustainability Report concerns and covers all the consolidated company's business entities from January 1 to December 31, 2024.

Standards and compliance

This report is prepared in accordance with the GRI standards 2021. Following GRI standards allows us to report in standardized form on the Sustainable Development Goals (SDGs) relevant to Orion and our progress to advance climate action and a respective just transition. Orion applies its Code of Conduct throughout all its activities, at the same time complying with local legislation at its respective locations.

Forward-looking statements and disclaimer

The content in this Sustainability Report and all statements made herein, as well as documents or reports incorporated herein by reference, should be read in conjunction with Orion's 2024 Annual Report on form 10-K, which contains additional information about our company and risk factors we have identified. However, this report is not incorporated into our 10-K filing by reference or otherwise and our 10-K filing is vice versa not incorporated into this report. This Sustainability Report may contain certain forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. Forward-looking statements are statements of future expectations that are based on current expectations and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in these statements. Statements on what "we will" do or comparable expression of intent, reflect only our current intent but should not be interpreted as a firm commitment irrespective of future developments and circumstances. You should not place undue reliance on forward-looking statements. Each forward-looking statement speaks only as of the date of the statement and is based only on the information available and known by Orion at the time the statement is made. New risk factors and uncertainties emerge from time to time, and it is not possible to predict all risk factors and uncertainties, nor can we assess the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. We undertake no obligation to publicly update or revise any forward-looking statement as a result of new information, future events or other information, other than as required by applicable law.

All information and statements contained herein are believed to be accurate; however, Orion Engineered Carbons GmbH (as well as all other Orion engineered carbons group companies including Orion SA), its agents and/or affiliates ("OEC") give no warranty or guarantee (express or implied) with respect to the content of this publication or any product described herein, including but not limited to any properties, the suitability of a product to a specific purpose or use, results to be obtained or the existence or non-infringement of any proprietary right.

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ESG performance

ENVIRONMENT

Indicator	Unit	Target*	2024	2023	2022
Production					
Production	MT		905,365	878,396	913,247
GHG emissions					
Scope 1	mn MT CO_2e		**2.2**	2.2	2.3
Scope 1 Intensity	MT CO_2e / MT Production		**2.45**	2.47	2.50
Normalised Scope 1 Intensity[1]	MT CO_2e / MT Production		**2.28**	2.36	2.39
Intensity reduction	%	**-8**	**-7**	-4	-3
Scope 2 - Market Based[2]	k MT CO_2e	**0****	**132**	152	166
Scope 2 - Location Based	k MT CO_2e		**127**	123	–
Scope 2 Intensity	MT CO_2e / MT Production		**0.14**	0.17	0.18
CO_2 Emissions Reduction from Outbound Freight[3]	%	**-30**	**-17**	-17	-4
Scope 3	mn MT CO_2e		**1.4**	1.3	1.4
SO_2					
Emissions	K MT SO_2		**6.9**	6.8	10.0
Intensity	KG SO_2 / MT Production		**7.58**	7.68	10.97
Intensity reduction	%	**-50**	**-60**	-60	-42

Indicator	Unit	Target*	2024	2023	2022
NOx					
Emissions	K MT NOx		**3.4**	3.2	3.6
Intensity	KG NOx / MT Production		**3.71**	3.65	4.03
Intensity reduction	%	**-25**	**-30**	-31	-24
Particulate matter[4]					
Emissions	K MT PM		**0.30**	0.37	0.38
Intensity	kg PM / MT Production		**0.34**	0.42	0.42
Intensity reduction	%	**-15**	**-47**	-37	-34
Energy					
Energy consumption[5]	TWh		**20.3**	20.0	20.8
Intensity[6]	cf. footnote [6]		**2.09**	2.13	2.14
Tail gas utilization rate[7]	%	**79**	**84**	84	73
Water inflow					
Inflow	million m^3		**12.9**	13.6	12.0
Surface water	%		**57**	27	29
Well Water	%		**14**	22	18
Municipality	%		**27**	48	48
Retention Pond	%		**2**	3	5
Water outflow					
Outflow	million m^3		**5.2**	4.5	3.5
Sanitary Sewer	%		**1**	1	1
Municipality	%		**26**	30	24
Natural Body of Water / Collection Pond	%		**73**	69	75

ESG performance *continued*

Indicator	Unit	Target*	2024	2023	2022
Water intensity					
Water Intensity[8]	m^3 / MT Production		**8.5**	10.4	9.3
Waste intensity					
Waste Intensity	kg / MT Production		**25.4**	28.6	15.4
Waste generation					
Total Waste Generation	k MT		**23.0**	25.1	14.1
General & Non-hazardous waste	k MT		**19.6**	22.7	10.8
Hazardous waste	k MT		**3.4**	2.4	3.3
Waste disposal method					
General and Non-Hazardous Waste					
Landfilled	k MT		**13.5**	16.0	6.3
Recycled, Reused & Recovered	k Mt		**5.7**	6.5	4.3
Incinerated	k MT		**0.4**	0.3	0.2
Hazardous Waste					
Landfilled	k MT		**1.8**	1.3	1.8
Recycled, Reused & Recovered	k Mt		**0.7**	0.3	0.4
Incinerated	k MT		**0.9**	0.8	1.0
Significant spills[9]					
Number of Incidents	number	**0**	**0**	0	0

* baseline year 2014 (unless specifically stated otherwise), and all targets set for delivery by 2029

** Target set for delivery by 2030.

(1) Normalized for product mix and feedstock mix in furnace black production

(2) Baseline year of 2022.

(3) Measured vs. 2019 base value on a normalized unit cost base.

(4) PM emissions based on the local authorities' requirements, which can differ across the different legislations.

(5) Energy consumption includes fuel oil, make oil, and other energy (e.g., electric power) consumed at the operating sites under our management control and ownership.

(6) Total energy consumed in TWhs divided by total useful energy in TWhs (including carbon black and energy produced)

(7) Tail gas usage in the production of energy for internal or third-party consumption

(8) Calculated as net water usage (inflow less outflow) per million metric tons of carbon black produced

(9) Significant spill is defined as a reportable release of a substance that is large enough to be included in our financial statements and is recorded as such in our EHS registry.

GHG emissions, encompassing Scope 1, Scope 2, and Scope 3 are calculated in accordance with the publicly available GHG Protocol Corporate Accounting and Reporting Standard.

The values reported for 2024 for Scope 1, Scope 2 (Market Based), Scope 2 (Location Based), and Scope 3 have been independently assured.

In accordance with our operational control approach, GHG emissions reported under Scope 1 and Scope 2 only include Orion's wholly owned 14 operational plants and do not include emissions related to mostly leased office buildings which includes administration, headquarters, technical centers, and related operations. It should be noted that our 15th plant is a joint venture ("JV") that Orion has no operational control over, and the reported Scope 1 and Scope 2 GHG emissions are excluded from this plant which is located in Germany. However, the JV's Scope 1 and Scope 2 emissions are included in our Scope 3 Category 15 emissions.

The reported Scope 3 emissions represent only nine out of total fifteen categories. These nine categories are:

- Category 1. Purchased goods and services
- Category 2. Capital goods
- Category 3. Fuel and energy-related activities (not included in Scope 1 or Scope 2)
- Category 4. Upstream transportation and distribution
- Category 5. Waste generated in operations
- Category 6. Business traveling
- Category 7. Employee commuting
- Category 12. End-of-life treatment of sold products
- Category 15. Investments.

It is important to note that Category 4, pertaining to Orion, encompasses only the emissions associated with the transportation of Carbon Black Oil (CBO) to its production facilities. Presently, the transportation of all other upstream purchases is not captured or tracked.

Similarly, with respect to Category 12, Orion accounts solely for the emissions resulting from the end-of-life treatment of product packaging. The end-of-life treatment of sold carbon black is not included in the accounting due to uncertainties involved.

The remaining Scope-3 emission categories are classified as either "irrelevant" to Orion's operations (specifically categories 8, 11, 13, and 14) or "potentially relevant but not presently calculated" (categories 9 and 10), owing to the uncertainties associated with customer processing.

ESG performance *continued*

SOCIAL

Indicator	Unit	2024	2023	2022
Employees by gender[1]				
Total	number	**1,658**	1,652	1,605
Male	%	**81**	81	82
Female	%	**19**	19	18
Females in management roles	%	**21**	21	19
Employees by contract[2]				
Permanent	number	**1,646**	1,634	1,584
Temporary	number	**12**	18	21
Full-Time	number	**1,604**	1,606	1,573
Part-Time	number	**54**	46	32
Employees by region				
Americas	number	**417**	418	419
APAC	number	**374**	383	362
EMEA	number	**867**	851	824
Employee by age group				
<30	number	**181**	186	175
30–50	number	**783**	757	735
>50	number	**694**	709	695

Indicator	Unit	Target*	2024	2023	2022
Employees in bargaining unit[3]					
Number of employees	number		**809**	808	762
As a percentage of total	%		**49**	49	48
Voluntary turnover rate					
Voluntary Turnover rate	%		**3**	3	4
Employees receiving performance review					
As a percentage of total	%		**72**	68	65
As a percentage of employees eligible employment contract[4]	%	**95**	**97**	94	96
Workforce receiving training					
As percentage of total	%	**100****	**100**	100	100
Average training hours					
Average training hours	hrs	**40****	**66**	69	27
Non-discrimination					
Claims alleged	number		**0**	0	0
Substantiated	number		**0**	0	0
Unsubstantiated	number		**0**	0	0
Claims closed	number		**0**	0	0
Corrective Actions taken[5]	number		**0**	0	0

ESG performance *continued*

Indicator	Unit	2024	2023	2022
Operational safety				
DAFW case rate	number per 200,000 worked hours	**0.29**	0.23	0.29
TRI case rate	number per 200,000 worked hours	**0.35**	0.34	0.41
PSE[6]	number	**24**	19	18
Employee Fatalities	number	**0**	0	0
Contractor fatalities	number	**0**	0	1

* baseline year 2019 (unless specifically stated otherwise), and all targets set for delivery by 2029

** yearly target

(1) Gender dispersion - Orion operates in the Chemical manufacturing industry which is predominantly a male workforce, and our gender dispersion is consistent with the industry. Approximately 2/3 of our workforce are in blue collar roles.

(2) Part-time/Temporary Employees – Approximately 2/3 of our workforce are in blue collar roles and the nature of this work in the chemical industry lends itself to regular full-time roles so that employees are properly trained. Our unions and works counsels generally prefer for employees to have the security of regular full-time employment.

(3) Collective Bargaining – Orion recognizes and respects our employees' right to be represented under a collective bargaining agreement however, we strive to provide a safe working environment and competitive wages and benefits for all employees regardless of representation.

(4) Employees are defined to include only those whose contracts (including collective bargaining agreements) do not restrict the company from conducting individual performance reviews.

(5) Options include no action, policy review, training, discipline, and termination.

(6) Following CCPS guideline, a process safety event is defined as an event involving the release or loss of containment of hazardous materials that can result in large-scale health and environmental consequences. While we have been collecting and reviewing the underlying data, we started categorizing the relevant data under this classification in 2020.

GOVERNANCE

Indicator	Unit	Target*	2024	2023	2022
Environmental non-compliance incidents[1]					
Number of incidents	number		**0**	0	0
Compliance training[2]					
Employees receiving compliance training	%	**95****	**100**	100	100
Sustainable procurement					
Suppliers signing up to the Supplier Code of Conduct [3]	%	**100**	**98**	99	99
Use of Plastic Pallets made of Recycled Material[4]	%	**100**	**100**	100	95
Use of Reusable Pallets at all Sites[5]	%	**90**	**95**	95	72
Paper bags from Recycled Paper[6]	%	**95**	**6**	2	0
Use of Reusable FIBCS or Recycled FIBC[7]	%	**100**	**24**	14	0
Share of spend from targeted suppliers having our CSR assessments or other recognized third-party assessments (EcoVadis, etc.)	%	**60**	**53**	25	15
Procurement team receiving training on sustainability purchasing risk identification and management	%	**75*****	**90**	–	–

* baseline year 2014 (unless specifically stated otherwise), and all targets set for delivery by 2029

** yearly target

*** at least 75% annually

(1) An environmental non-compliance level A incident as described in Orion's management system: an incident causing community evacuation, shelter in place and significant property damage

(2) This was formerly called "Code of Conduct Training". However, the Code Of Conduct is only one of several elements of our comprehensive compliance training.

(3) Measured in terms of value. Excludes suppliers with whom we transact on an ad hoc basis without a formal contract for a monetary value of less than $10,000 per annum

(4) Applies to sites using plastic pallets. Minimum recycled material content set at 60%

(5) Applies to pallets used in outbound logistics as we have no control over inbound pallets. Target has been increased from 75% to 90%.

(6) Minimum recycled paper content set at 50%

(7) Given the separate target for paper bags, this target has been reset for FIBCs. Reusability has been set at six; and minimum recycling content at 20%

GRI/UNGC content index

FOUNDATION 2021

GRI Standard	Disclosure	Reference 2024 UNGC	Location (response/page number)	Omission	
				Requirement(s) omitted	Reason and explanation
GRI 1: Foundation 2021	Statement of use		Orion S.A has reported the information cited in this GRI content index for the period of January 1 to December 31, 2024 in accordance with the GRI Standards.		

GENERAL DISCLOSURES

GRI Standard	Disclosure	Reference 2024 UNGC	Location (response/page number)	Omission	
				Requirement(s) omitted	Reason and explanation
GRI 2: General Disclosures 2021	2-1 Organizational details		We are Orion pg 3. Orion at a Glance, pg. 4. 2024 10K pg 5.		
	2-2 Entities included in the organization's sustainability reporting		About this report pg 2. 2024 10K pg. 22.		
	2-3 Reporting period, frequency and contact point		Scope and reporting period pg. 54. Contact point pg.76.		
	2-4 Restatements of information		Information about any restatements is provided in the footnotes to the relevant data		

GRI/UNGC content index *continued*

GENERAL DISCLOSURES CONTINUED

GRI Standard	Disclosure	Reference 2024 UNGC	Location (response/page number)	Omission	
				Requirement(s) omitted	Reason and explanation
GRI 2: General Disclosures 2021	2-5 External assurance		As part of its committee duties and responsibilities, Orion's Audit Committee is directly responsible for the appointment, compensation, retention, and oversight of the work of any registered public accounting firm engaged by Orion. This covers any and all of their audit work as well as other reviews and attestations, including the issuance of respective reports. The Audit Committee discusses with our independent auditors any relationships or services disclosed in their assurance statement that may impact the quality of audit services or the objectivity and independence of the auditors. Additionally, the Audit Committee obtains and reviews the timely reports from the independent auditors in connection with any audit, review, or attestation services provided. More information can be found in our 2025 Proxy statement pg. 19, 81, 82 Greenhouse Gas (GHG) Independent Auditor Assurance (Scope 1, 2 and 3) pg. 73		
	2-6 Activities, value chain and other business relationships		We are Orion pg. 3. Orion at a glance pg. 4. Orion's value chain and relationships pg. 12		
	2-7 Employees		ESG performance : Social pg. 56 – 57		
	2-8 Workers who are not employees		In certain cases we employ contractors. As of December 31st, we had a headcount of 269 contractors		
	2-9 Governance structure and composition	**1,2,4,5,6,10**	Our Governance structure pg. 43 2025 Proxy Statement pg. 7-21		
	2-10 Nomination and selection of the highest governance body	**1,2,4,5,6,10**	Corporate Governance Guidelines for the Board of Directors of Orion Engineered Carbons S.A pg. 2-3 2025 Proxy Statement pg. 7-26		
	2-11 Chair of the highest governance body	**1,2,4,5,6,10**	2025 Proxy Statement pg. 33-34		

GRI/UNGC content index *continued*

GENERAL DISCLOSURES CONTINUED

GRI Standard	Disclosure	Reference 2024 UNGC	Location (response/page number)	Omission	
				Requirement(s) omitted	Reason and explanation
	2-12 Role of the highest governance body in overseeing the management of impacts	**1,2,4,5,6,10**	Our Governance structure pg. 43 2025 Proxy Statement pg. 29-32		
	2-13 Delegation of responsibility for managing impacts	**8**	Our Governance structure pg. 43 2025 Proxy Statement pg. 29-32		
	2-14 Role of the highest governance body in sustainability reporting		Double materiality assessment pg. 12 Our Governance structure pg. 43 Charter of the Nominating, Sustainability and Governance committee of the Board of Directors of Orion Engineered Carbons S.A pg. 2 2025 Proxy Statement pg. 29		
GRI 2: General Disclosures 2021	2-15 Conflicts of interest	**10**	Business ethics and compliance, corporate culture and risk management pg. 44		
	2-16 Communication of critical concerns	**2**	Human rights pg. 39 Policy on Whistleblower Protection pg. 1-3		
	2-17 Collective knowledge of the highest governance body		2025 Proxy statement pg. 7, 9-17		
	2-18 Evaluation of the performance of the highest governance body		Corporate Governance Guidelines for the Board of Directors of Orion Engineered Carbons S.A pg. 7 2025 Proxy Statement pg. 27		
	2-19 Remuneration policies		Our Governance structure pg. 43 2025 Proxy Statement pg. 43-73		
	2-20 Process to determine remuneration		Our Governance structure pg. 43 2025 Proxy Statement pg. 46-73		

GRI/UNGC content index *continued*

GENERAL DISCLOSURES CONTINUED

GRI Standard	Disclosure	Reference 2024 UNGC	Location (response/page number)	Omission	
				Requirement(s) omitted	Reason and explanation
	2-21 Annual total compensation ratio		2025 Proxy Statement pg. 70		
	2-22 Statement on sustainable development strategy	**7,8,9**	Letter from Corning Painter, Orion's Chief Executive Officer pg.6-7		
	2-23 Policy commitments	**1,2 3,4,5,6,10**	Our global frames of reference pg. 15 Human rights pg. 39 See also Human Rights policy, Supplier Code of Conduct, Code of Conduct and Global EHSQ, Energy and Sustainability Policy		
GRI 2: General Disclosures 2021	2-24 Embedding policy commitments	**1,2 3,4,5,6,10**	Human rights pg. 39 Business ethics and compliance, corporate culture and risk management pg. 44-45 2025 Proxy Statement pg. 29-37		
	2-25 Processes to remediate negative impacts	**1**	Business ethics and compliance, corporate culture and risk management pg.45		
	2-26 Mechanisms for seeking advice and raising concerns	**1, 2**	Policy on Whistleblower Protection pg. 1-3		
	2-27 Compliance with laws and regulations	**1**	Business ethics and compliance, corporate culture and risk management pg. 45 ESG Perfomance pg. 58		
	2-28 Membership associations		Public policy and engagement pg. 51		
	2-29 Approach to stakeholder engagement		Double materiality assessment pg. 12 2025 Proxy Statement pg. 28		
	2-30 Collective bargaining agreements	**3**	ESG performance pg. 57		

GRI/UNGC content index *continued*

MATERIAL TOPICS

GRI Standard	Disclosure	Reference 2024 UNGC	Location (response/page number)	Omission	
				Requirement(s) omitted	Reason and explanation
GRI 3: Material Topics 2021	3-1 Process to determine material topics	**1,6, 7, 8, 9,10**	Double materiality assessment pg. 11-12		
	3-2 List of material topics		Double materiality assessment pg. 13		
Climate Change and Emissions					
GRI 3: Material Topics 2021	3-3 Management of material topics	**7,8,9**	Double materiality assessment pg. 13 Climate change and approach to net zero pg. 19-20 Operational emissions management pg. 25-26		
GRI 201: Economic Performance 2017	201-2 Financial implications and other risks and opportunities due to climate change	**7,8,9**	Orion's vision to net zero pg.21 Business ethics and compliance, corporate culture and risk management pg. 46-48 2024 CDP Questionnaire section 3.1.1		
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions		Operational emissions management pg. 25 ESG Performance pg. 55 2024 CDP Quesionnaire section 7.5, 7.6		
	305-2 Energy indirect (Scope 2) GHG emissions		Operational emissions management pg. 25 ESG Performance pg. 55 2024 CDP Quesionnaire section 7.5, 7.7		
	305-3 Other indirect (Scope 3) GHG emissions		Operational emissions management pg. 25 ESG Performance pg. 55 2024 CDP Questionnaire section 7.5, 7.8		
	305-4 GHG emissions intensity		Operational emissions management pg. 25 ESG Performance pg. 55 2024 CDP Questionnaire section 7.45		
	305-5 Reduction of GHG emissions	**8**	Orion's vision to net zero pg.21 2024 CDP Questionnaire section 7.55		

GRI/UNGC content index *continued*

MATERIAL TOPICS CONTINUED

GRI Standard	Disclosure	Reference 2024 UNGC	Location (response/page number)	Omission	
				Requirement(s) omitted	Reason and explanation
Pollution					
GRI 3: Material Topics 2021	3-3 Management of material topics	**7,8,9**	Double materiality assessment pg. 13 Pollution pg. 27-29		
GRI 305: Emissions 2016	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions		Pollution pg. 27 ESG Performance pg. 55		
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	**7,8,9**	Pollution pg.27-29		
	303-2 Management of water discharge-related impacts	**7,8,9**	Pollution pg.27 2024 CDP Questionnaire section 9.2.9		
GRI 303: Water and Effluents 2018	303-3 Water withdrawal		ESG Performance pg. 55 2024 CDP Questionnaire section 9.2		
	303-4 Water discharge		ESG Performance pg. 55 2024 CDP Questionnaire section 9.2		
	303-5 Water consumption		ESG Performance pg. 55 2024 CDP Questionnaire section 9.2, 9.3.1		
GRI 306: Effluents and Waste 2016	306-3 Significant spills		ESG Performance pg. 56		

GRI/UNGC content index *continued*

MATERIAL TOPICS CONTINUED

GRI Standard	Disclosure	Reference 2024 UNGC	Location (response/page number)	Omission	
				Requirement(s) omitted	Reason and explanation
Circularity					
GRI 3: Material Topics 2021	3-3 Management of material topics	**7,8,9**	Double materiality assessment pg.13 Pollution pg. 29 Circularity pg. 30-31		
GRI 301: Materials 2016	301-1 Materials used by weight or volume			Total weight or volume of materials that are used to produce the organization's primary products and services during the reporting period	*Reason* Information unavailable/incomplete *Explanation* To minimize our environmental footprint and achieve our emissions reduction ambitions, we are developing new and more efficient technologies and processes, and developing products based on circular and bio-circular feedstocks. We do not disclose information on the weight or volume of materials used in production.
	301-2 Recycled input materials used			Percentage of recycled input materials used to manufacture the organization's primary products and services.	*Reason* Information unavailable/incomplete *Explanation* To minimize our environmental footprint and achieve our emissions reduction ambitions, we are developing new and more efficient technologies and processes, and developing products based on circular and bio-circular feedstocks. We do not disclose information on the percentage of recycled input materials used in production.
	301-3 Reclaimed products and their packaging materials	**8,9**	Supply chain management pg. 50 ESG Performance pg. 58		
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	**7,8,9**	Pollution pg. 29 Circularity pg. 30-31		
	306-2 Management of significant waste-related impacts	**7,8,9**	Pollution pg. 29 Circularity pg. 30-31		
	306-3 Waste generated		Pollution pg.29 ESG Performance pg. 56		

GRI/UNGC content index *continued*

MATERIAL TOPICS CONTINUED

GRI Standard	Disclosure	Reference 2024 UNGC	Location (response/page number)	Omission: Requirement(s) omitted	Omission: Reason and explanation
Circularity continued					
GRI 306: Waste 2020	306-4 Waste diverted from disposal	**8**	ESG Performance pg. 56		
	306-5 Waste directed to disposal		Pollution pg.29 ESG Performance pg. 56		
Talent Management & People and Culture					
GRI 3: Material Topics 2021	3-3 Management of material topics	**1,3,6**	Double materiality assessment pg.13 Our Approach pg. 33		
GRI 401: Employment 2016	401-1 New employee hires and employee turnover				

Region	Americas	APAX	EMEA	Totals
Voluntary Departures	26	5	23	54
New Hires	54	15	71	140

Gender	Male	Female	Totals
Voluntary Departures	37	17	54
New Hires	107	33	140

Age	<30	30–50	>50	Totals
Voluntary Departures	14	35	5	54
New Hires	51	80	9	140

	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees		Benefits provided to fulltime employees in significant operations such as : – Health care – Life insurance – Disability – Employee Assistance – Retirement – Vacation/Holiday – Family/parental leave – Education/Tuition reimbursement – Service awards – Bonus opportunity		

GRI/UNGC content index *continued*

MATERIAL TOPICS CONTINUED

GRI Standard	Disclosure	Reference 2024 UNGC	Location (response/page number)	Omission	
				Requirement(s) omitted	Reason and explanation
Talent Management & People and Culture continued					
GRI 401: Employment 2016	401-3 Parental leave	**6**		Retention and return to work rates	*Explanation*: Parental leave benefits vary country by country. We do not track the retention and return to work rates globally
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	**6**	ESG Performance pg.56-57 2024 Proxy Statement pg. 6		
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee		ESG Performance pg. 57		
	404-2 Programs for upgrading employee skills and transition assistance programs	**6**	Talent management pg. 34-35 ESG Performance pg. 57		
	404-3 Percentage of employees receiving regular performance and career development reviews	**6**	ESG Performance pg. 57		
Occupational health and safety					
GRI 3: Material Topics 2021	3-3 Management of material topics		Double materiality assessment pg.13 Occupational health and safety pg. 37 Business ethics and compliance, corporate culture and risk management pg. 45		
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system		Our approach pg. 18 Occupational health and safety pg. 37 Business ethics and compliance, corporate culture and risk management pg.45		

GRI/UNGC content index *continued*

MATERIAL TOPICS CONTINUED

GRI Standard	Disclosure	Reference 2024 UNGC	Location (response/page number)	Omission	
				Requirement(s) omitted	Reason and explanation
Occupational health and safety continued					
GRI 403: Occupational Health and Safety 2018	403-2 Hazard identification, risk assessment, and incident investigation		Occupational health and safety pg. 37 Business ethics and compliance, corporate culture and risk management pg.45		
	403-3 Occupational health services		Orion provides occupational health services to all our plants including medical advice and examinations for new employees. As needed, our sites will bring in the support of third-party medical experts to support structuring or restructuring jobs to accommodate specific medical needs whether short term or acute. Each site has dedicated EHS personnel to facilitate communication on health issues and ensure employee issues are addressed.		
	403-4 Worker participation, consultation, and communication on occupational health and safety		Occupational health and safety pg. 37 Business ethics and compliance, corporate culture and risk management pg.45		
	403-5 Worker training on occupational health and safety		Occupational health and safety pg. 37 Business ethics and compliance, corporate culture and risk management pg.45		
	403-6 Promotion of worker health		Orion promotes worker health by providing to fulltime employees in significant operations benefits such as Health care programs.		

GRI/UNGC content index *continued*

MATERIAL TOPICS CONTINUED

GRI Standard	Disclosure	Reference 2024 UNGC	Location (response/page number)	Omission	
				Requirement(s) omitted	Reason and explanation
Occupational health and safety continued					
GRI 403: Occupational Health and Safety 2018	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships		Orion's Supplier Code of Conduct requires that all suppliers across all its operations, provide for a safe and healthy working environment that minimizes health and safety risks to employees and third parties		
	403-8 Workers covered by an occupational health and safety management system		Our approach pg. 18 Climate change and approach to net zero pg. 20		
	403-9 Work-related injuries		ESG Performance. 57		
	403-10 Work-related ill health		ESG Performance. 57 – Orion treats work-related ill health as work-related injuries		
Product quality, safety and stewardship					
GRI 3: Material Topics 2021	3-3 Management of material topics		Double materiality assessment pg.13 Product quality, safety and stewardship pg.38		
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories		Product quality, safety and stewardship pg. 38		

GRI/UNGC content index *continued*

MATERIAL TOPICS CONTINUED

GRI Standard	Disclosure	Reference 2024 UNGC	Location (response/page number)	Omission	
				Requirement(s) omitted	Reason and explanation
Product quality, safety and stewardship continued					
GRI 416: Customer Health and Safety 2016	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services			Total number of incidents of non-compliance with regulations and/or voluntary codes concerning the health and safety impacts of products and services	*Reason* Information unavailable/incomplete *Explanation* Our carbon black products are specifically designed to be safe for handling and use, fully compliant with legal regulations, free from significant risks to human health and the environment, and optimized for superior performance in customer applications. We do not disclose the number of incidents of non-compliance with regulations and/or voluntary codes concerning product and service information and labeling
GRI 417: Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	**8**	Product quality, safety and stewardship pg.38		
	417-2 Incidents of non-compliance concerning product and service information and labeling			Total number of incidents of non-compliance with regulations and/or voluntary codes concerning product and service information and labeling	*Reason* Information unavailable/incomplete *Explanation* Our carbon black products are specifically designed to be safe for handling and use, fully compliant with legal regulations, free from significant risks to human health and the environment, and optimized for superior performance in customer applications. We do not disclose the number of incidents of non-compliance with regulations and/or voluntary codes concerning product and service information and labeling
Business ethics, compliance and corporate culture					
GRI 3: Material Topics 2021	3-3 Management of material topics	**1,2,3,6,10**	Double materiality assessment pg.13 Our approach pg.43 Business ethics and compliance, corporate culture and risk management pg. 44		

GRI/UNGC content index *continued*

MATERIAL TOPICS CONTINUED

GRI Standard	Disclosure	Reference 2024 UNGC	Location (response/page number)	Omission: Requirement(s) omitted	Omission: Reason and explanation
Business ethics, compliance and corporate culture continued					
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	**10**		The number and percentage of operations assessed for risks related to corruption	*Reason* Confidentiality constraints *Explanation* Risk management at Orion is a defined process of identifying, assessing and prioritizing potential risks, then working to mitigate or even circumvent those risks by actively monitoring, managing, controlling and reducing their probability. We do not disclose the number and percentage of operations assessed for risks related to corruption
	205-2 Communication and training about anti-corruption policies and procedures	**10**	Business ethics and compliance, corporate culture and risk management pg. 44 ESG Performance pg. 58 2025 Proxy Statement pg. 22		
	205-3 Confirmed incidents of corruption and actions taken	**10**			*Reason* Confidentiality constraints *Explanation* For the prevention of corruption, we believe that it is important to have an enhanced, strict common standard that uniformly applies to all of Orion and meets or exceeds local requirements. We do not disclose the number of confirmed incidents of corruption and actions taken
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	**10**	2024 10K pg. 22		

GRI/UNGC content index *continued*

MATERIAL TOPICS CONTINUED

GRI Standard	Disclosure	Reference 2024 UNGC	Location (response/page number)	Omission	
				Requirement(s) omitted	Reason and explanation
Supply chain management					
GRI 308: Supplier Environmental Assessment 2016	3-3 Management of material topics		Double materiality assessment pg.13 Supply chain management pg. 49		
	308-1 New suppliers that were screened using environmental criteria	**8**	Supply chain management pg. 49 ESG Performance pg. 58		
	308-2 Negative environmental impacts in the supply chain and actions taken	**8**	Supply chain management pg. 49 ESG Performance pg. 58		
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	**1**	Supply chain management pg. 49 ESG Performance pg. 58		
	414-2 Negative social impacts in the supply chain and actions taken	**1**	Supply chain management pg. 49 ESG Performance pg. 58		
Public Policy and Engagement					
GRI 3: Material Topics 2021	3-3 Management of material topics		Double materiality assessment pg.13 Public policy and engagement pg. 51		
GRI 415: Public Policy 2016	415-1 Political contributions		Orion made no political contributions in 2024		

Independent practitioner's limited assurance report on Orion S.A.'s Greenhouse Gas (GHG) emissions

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Independent practitioner's limited assurance report

Orion S.A.
Att.: Board of Directors
6 Route de Trèves
L-2633 Senningerberg
Grand Duchy of Luxembourg

Scope

We have been engaged by the Board of Directors of Orion S.A. (the "Company") to perform a 'limited assurance engagement', as defined by International Standards on Assurance Engagements, here after referred to as the engagement, to report on the Company's Greenhouse Gases (GHG) emission values which include Scope 1, Scope 2 and Scope 3 emissions (the "Subject Matter") contained in the Company's Sustainability Report 2024 for the year ended December 31, 2024 (the "Report").

Other than as described in the preceding paragraph, which sets out the scope of our engagement, we did not perform assurance procedures on the remaining information included in the Report, and accordingly, we do not express a conclusion on this information.

Criteria applied by the Board of Directors of the Company

In preparing the Greenhouse Gases (GHG) emission values which include Scope 1, Scope 2 and Scope 3 emissions, the Board of Directors of the Company applied the Greenhouse Gas Protocol - A Corporate Accounting and Reporting Standard ("the Criteria"). The Criteria are publicly available on the website of the GHG Protocol.

Responsibilities of the Board of Directors of the Company.

The Board of Directors of the Company is responsible for selecting the Criteria, and for presenting the Subject Matter in accordance with that Criteria, in all material respects. This responsibility includes establishing and maintaining internal controls, maintaining adequate records and making estimates that are relevant to the preparation of the GHG emission values reported in the Sustainability Report 2024, such that it is free from material misstatement, whether due to fraud or error.

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Inherent Limitations

The GHG emission values which include Scope 1, Scope 2 and Scope 3 emissions, quantification process is subject to scientific uncertainty, which arises because of incomplete scientific knowledge about the measurement of GHG emissions. Additionally, GHG emission procedures are subject to estimation (or measurement) uncertainty resulting from the measurement and calculation processes used to quantify emissions within the bounds of existing scientific knowledge.

Responsibilities of the "réviseur d'entreprises agréé"

Our responsibility is to express a conclusion on the presentation of the Subject Matter based on the evidence we have obtained.

We conducted our engagement in accordance with the International Standard on Assurance Engagement" (ISAE 3000 (Revised)) , and the terms of reference for this engagement as agreed with the Company on February 05 , 2025.Those standards require that we plan and perform our engagement to express a conclusion on whether we are aware of any material modifications that need to be made to the Subject Matter in order for it to be in accordance with the Criteria, and to issue a report. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, whether due to fraud or error.

We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

Our independence and quality management

We have maintained our independence and confirm that we have met the requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, and have the required competencies and experience to conduct this assurance review.

Our firm also applies International Standard on Quality Management 1, *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services engagements*, which requires that we design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

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Independent practitioner's limited assurance report on Orion S.A.'s Greenhouse Gas (GHG) emissions *continued*

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Description of procedures performed

Procedures performed in a limited assurance engagement vary in nature and timing from and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance.

Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.

A limited assurance engagement consists of making enquiries, primarily of persons responsible for preparing the Subject Matter and related information and applying analytical and other appropriate procedures.

Our procedures included:

- Conducting interviews with personnel to understand the business and the overall Greenhouse Gases (GHG) emission reporting context;
- Conducting interviews with key personnel to understand the process for collecting, processing and reporting the Subject Matter data during the reporting period;
- Comparing the calculation criteria applied with the methodologies outlined in the Criteria;
- Comparing the Company's internal Greenhouse Gases ("GHG") Emissions Inventory Management Plan (IMP) with the methodologies outlined in the Criteria;
- Performing analytical procedures of the reported Greenhouse Gases ("GHG") emission data and making inquiries of management to obtain explanations for any significant differences we identified;
- Identifying and testing significant assumptions supporting calculations;
- Checking the emission factors applied to obtain Greenhouse Gases ("GHG") emission
- Tracing data, on a sample basis, to underlying source information.

We also performed such other procedures as we considered necessary in the circumstances.

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Conclusion

Based on our procedures and the evidence obtained, we are not aware of any material modifications that should be made to the reported GHG emission values which include Scope 1, Scope 2 and Scope 3 for the year ended December 31, 2024, in order for it to be in accordance with the Criteria.

Ernst & Young
Société anonyme
Cabinet de révision agréé

Anthony Cannella

Luxembourg, 26 May 2025

Abbreviations

American Chemistry Council	ACC
American Society for Testing and Materials	ASTM
Carbon Black Oil	CBO
Carbon Border Adjustment Mechanism	CBAM
Carbon Dioxide	CO_2
Carbon Disclosure Project	CDP
Corporate Social Responsibility	CSR
Corporate Social Responsibility Directive	CSRD
Days Away From Work	DAFW
Earnings Before Interest, Taxes, Depreciation and Amortization	EBITDA
Electric Vehicles	EVs
Emissions Trading System	ETS
End-Of-Life Tires	ELT
Environment, Health & Safety	EHS
Environment, Social and Governance	ESG
Environmental Protection Agency (U.S.)	EPA
Europe, Middle East and Africa	EMEA
Flexible Intermediate Bulk Container	FIBC
Internal Combustion Engine	ICE
Global Management System	GMS
Global Reporting Initiative	GRI
Global Warming Potential	GWP
Greenhouse Gas Emissions	GHG
International Organization for Standardization	ISO
International Sustainability & Carbon Certification	ISCC
Kilo Metric Tons	KMT
Life Cycle Assessment	LCA
Losses Of Primary Containment	LOPC
Metric Tonnes	MT
Nitrogen Oxide	NOx
Occupational Health and Safety Assessment Series	OHSAS 18001
Occupational Safety and Health Administration Voluntary Protection Program	OSHA VPP
Particulate Matter	PM
Process Safety Event	PSE
Product Carbon Footprint	PCF
Recovered Carbon Black	rCB
Revolving Credit Facility	RCF
Selective Catalytic Reduction	SCR
Sustainable Development Goals	SDGs
Sulfur Dioxide	SO_2
Sulfur Oxide	SOx
Tire Pyrolysis Oil	TPO
Total Recordable Injuries	TRI
United Nations Global Compact	UNGC
United Nations Global Compact	UNGC

We welcome your feedback on this report and our sustainability progress, as well as any other comments or questions you may have. You may contact us at:

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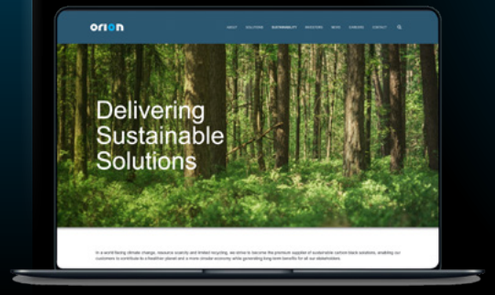

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