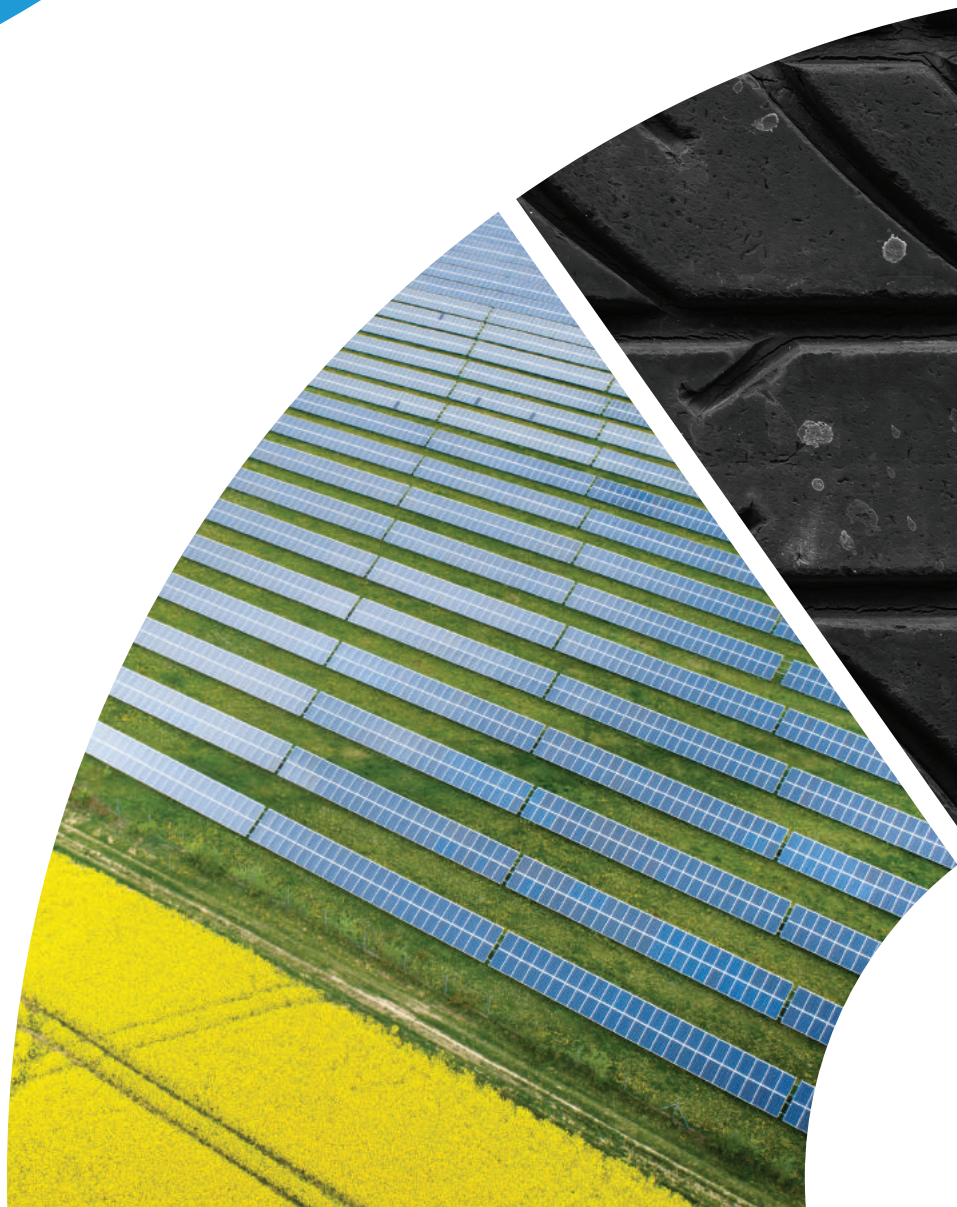


# 2020 Sustainability Report

Working toward a sustainable world



# ABOUT ORION

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## OUR COMPANY

Orion is a global supplier of carbon black. We produce a broad range of carbon blacks that include high-performance specialty gas blacks, acetylene blacks, furnace blacks, lamp blacks, thermal blacks and other carbon blacks that tint, colorize and enhance the performance of polymers, plastics, paints and coatings, inks and toners, textile fibers, adhesives and sealants, tires, and mechanical rubber goods such as automotive belts and hoses. Orion operates 14 global production sites and has over 1,400 employees worldwide.

## OUR VISION

We are the premium supplier of carbon black. We generate long-term value for stakeholders while remaining committed to responsible business practices with a focus on team culture, reliability, innovation, and sustainability.

## OUR SUSTAINABILITY PILLARS



**Sustainable growth**



**Being compliant in our day-to-day operations**



**Living our values by implementing relevant social agenda**



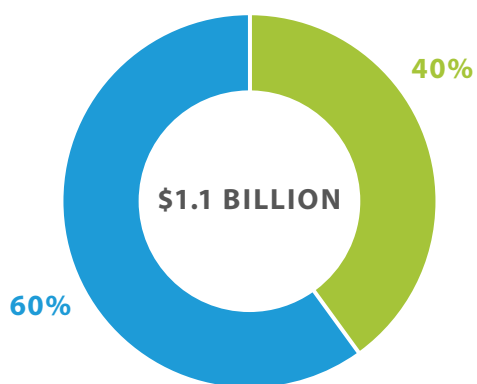
**Driving sustainability along our value chain**



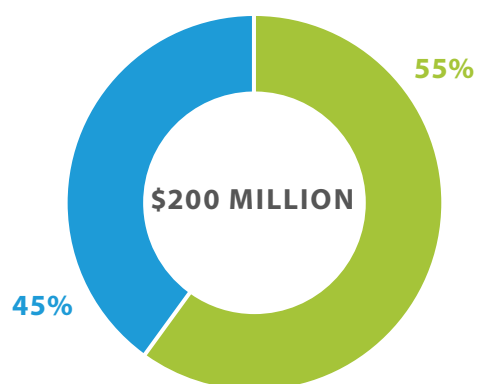
## FINANCIAL SNAPSHOT

	2020	2019
Revenue	\$1.1 billion	\$1.5 billion
Adjusted EBITDA	\$200 million	\$267 million
Adjusted EBITDA Margin	17.6%	18.1%
Adjusted Earnings per Share	\$1.04	\$1.87

2020 Sales by Segment



2020 Adj. EBITDA by Segment



- Specialty Carbon Black
- Rubber Carbon Black

## ABOUT THIS REPORT

This report highlights the environmental, social and governance (ESG) topics that are relevant and material to Orion and its key stakeholders. Environmental impact, social issues and governance practices across the value chain of the carbon black industry provide the framework for our approach to sustainability. This framework is used to identify areas of risk and concern, as well as opportunities. It provides structure to help us form a holistic view and identify areas that require our attention.

We have grouped the material topics around the following four themes:

- Sustainable growth
- Compliance
- Living our values
- Value chain engagement

This report also outlines our sustainability strategy that embeds our key sustainability initiatives into Orion's corporate strategy.



The sustainability information contained in this report reflects our combined performance at our locations where we had operational control and ownership during the 2020 calendar year.<sup>1</sup> Unless noted otherwise, information on ESG presented in this report covers our business activities during 2020. Sustainability data presented in this report have been internally audited.

For questions or comments regarding this Report, contact [Investor-Relations@orioncarbons.com](mailto:Investor-Relations@orioncarbons.com).

### Forward-looking Statements

The content in this Sustainability Report, including documents or reports incorporated herein by reference, should be read in conjunction with Orion's Annual Report for the year ended December 31, 2020, which contains additional information about our company. 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. You should not place undue reliance on forward-looking statements. Each forward-looking statement speaks only as of the date of the particular statement. 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.

<sup>1</sup> ESG information contained in this report does not include those relating our joint venture in Germany (Deutsche Gasrußwerke).





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## ORION CEO'S LETTER TO STAKEHOLDERS

Corning F. Painter — Chief Executive Officer



“We are committed to finding solutions to make renewable carbon black a vibrant part of our offerings.”

### Dear Stakeholders,

How we address the environmental impact from our operations, the stance we take on social issues and the governance practices we embrace define our true values and who we are as a business. Within this ESG framework, we believe that the most critical issue that requires our immediate attention is climate change. It requires a response that will reshape industries toward a low carbon future. We believe that choices have to be made now to position Orion for the transition that must come to ensure a sustainable future. It presents us with an opportunity to be a disrupting enabler during the transition and an industry leader along the way.

### Our sustainability strategy is to place Orion on a path toward a low-carbon future

The choices we are making are reflected in our corporate strategy. As a producer of solid carbon black, we have a role in leading our

industry toward a low-carbon future. As the industry's technology leader, we also have a role in providing solutions for a low-carbon economy. Our strategy is to place Orion on a sustainable path toward a low-carbon future while generating growth by being an enabling force in the transition to a low-carbon economy.

Our assessment of the long-term outlook identified three core mega trends that have informed our strategy:

- Decarbonization
- Circularity
- Electrification

### DECARBONIZING OUR PRODUCTION PROCESSES

The challenge is to develop ways of producing carbon black on a net neutral CO<sub>2</sub> emissions basis.

We believe the most capital-efficient way to reach net zero CO<sub>2</sub> emissions for our industry is by replacing fossil fuel-based feedstock with renewable oils. We currently offer carbon blacks that are made

<sup>2</sup> The estimation of demand for carbon black generated from the tire industry is based on the global demand estimated for 2019 in Carbon Black World Data Book 2020 (July 2020) from Notch Consulting, Inc.

<sup>3</sup> See the ELT section under World Business Council for Sustainable Development's tire industry project at <https://www.wbcsd.org/Sector-Projects/Tire-Industry-Project/End-of-Life-Tires-ELTs>.

<sup>4</sup> For more detailed information about the BlackCycle project, see <https://cordis.europa.eu/project/id/869625>.

with a biological oil. We are developing process technology using a broad range of biological feedstocks and improving the efficiency of these processes. For instance, our Innovation team is working with the Research Institute of Sweden to test different types of renewable oils derived from forest products. We are in the early phase of this endeavor, and there will be challenges along the way. However, we are committed to finding solutions to make renewable carbon black a vibrant part of our offerings.

## RECYCLING CARBON BLACK

Carbon black is an essential ingredient in tires, which drive about 70% of the global demand for carbon black. As a result, we are a critical facet of the tire industry value chain, which has identified circular solutions and the sustainable management of end-of-life tires (ELTs) as key strategic imperatives. We see developing circular economy for ELTs as a business opportunity. Oil can be extracted from natural and synthetic rubber and used as feedstock oil in the production of carbon black. We are part of the European Union funded BlackCycle project<sup>4</sup> in which we are developing processes to use ELT derived oil in the production of carbon black for tire grades.

## ENABLING CARBON BLACK IN ADVANCING ELECTRIFICATION

Decarbonizing the electrical grid and transitioning to electric vehicles are key priorities in the fight against climate change. Energy storage is a key element of both solutions. For instance, in the mobility sector, electrification of motor vehicles is made possible through advancements in lithium-ion batteries (LiBs).

**We are pleased to be an enabling contributor in the electrification supply chain that will transform how energy is consumed in the future.**

Highly conductive carbon blacks play a critical role in LiBs. Our acetylene black products provide cost effective conductive solutions for LiBs in electric vehicles and in other applications. Electrification will also require expansion in energy transmission and distribution networks, which will drive demand for acetylene black in wire and cable applications. We are pleased to be an enabling contributor to the electrification supply chain that will transform how energy is consumed in the future.

We started our sustainability journey in 2019 when we published our first sustainability report. We have now established our sustainability strategy to position Orion as a leader in creating a low-carbon future.

We are conscious that sustainability is not just about climate change. It covers other equally important topics under social issues and governance practices. In this report, we highlight the progress we are making on the full spectrum of ESG as they relate to Orion.

We want to take this opportunity to express our appreciation for all the frontline workers in the fight against the pandemic. We are also grateful for our employees and business partners for maintaining safe operations at our facilities. We took early action in securing personal protective equipment (PPE) and enhancing health protocols to protect our employees and minimize the risk of disruption in our operations from the pandemic. We also made charitable donations, such as PPE, to be a contributing member to our host communities. While extending condolences to many who have lost loved ones to the pandemic, I am also grateful to our employees for their resilience and teamwork. They also enabled us to not only succeed during these challenging times, but to be on track to emerge from it stronger than before.

Very truly yours,



Corning F. Painter,  
Chief Executive Officer





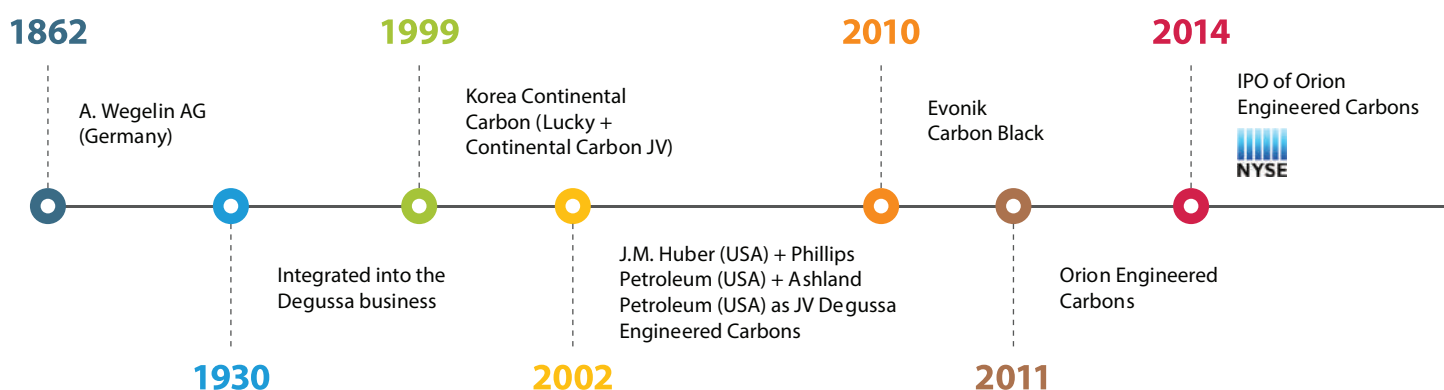
## WHO WE ARE

We are a global leader in carbon black with the industry-leading technology and capability to provide customized solutions in specialty and rubber applications. We have been in the carbon black business since 1862. We believe that our production site in Cologne (Germany), which celebrated its 125th anniversary in 2020, is the oldest operating carbon black production site in the world.

We operate a global network of 14 production sites<sup>5</sup> across 10 countries. In addition to our headquarters in Luxembourg and the principal executive office in Houston (U.S.), we have offices in Frankfurt (Germany), Cologne (Germany), Shanghai (China), Tokyo (Japan), Seoul (South Korea), Singapore, and other locations. Our principal R&D center is located in Cologne. We also have laboratories to support our customers and operations in New Jersey (U.S.), Shanghai, and Yeosu (South Korea).

Carbon black is a commercial form of elemental carbon that is manufactured in highly controlled processes to produce specifically engineered aggregates of carbon particles that vary in particle size, aggregate size, shape, porosity, and surface chemistry, among other attributes.

Carbon black is used in a diverse range of industries as a material that enhances the physical, electrical, and optical properties of their products. For instance, in rubber products such as tires and mechanical rubber goods (MRG), carbon black extends the tire life, and improves performance, mechanical and dynamical toughness, tear-strength, conductivity and other physical properties. In volumetric terms, the largest demand source for carbon black comes from the tire industry where carbon black accounts for approximately 30% of tire loading by weight.



Our competitive advantage is our ability to engineer modifications in carbon black properties to meet the specific requirements of our customers. This competitive advantage has enabled us to become the global leader in carbon blacks for both specialty and rubber application segments.

Our carbon black business is managed through two business lines.

- **Specialty Carbon Black:** Focuses on providing carbon black-based solutions to our customers across a wide array of application segments that require specialized attributes, including batteries, polymers, coatings, and printing systems, among others. We offer a wide range of conductive carbon black products that can meet our customer requirements.
- **Rubber Carbon Black:** Focuses on meeting the needs of our tire and MRG customers. In addition to the ASTM grades, we offer technical rubber products that are specifically designed to enhance the performance of their end-products. For instance, compared against the standard ASTM grades<sup>6</sup>, our technical rubber goods (TRG) in truck tires are estimated to reduce rolling resistance by as much as 17%, which can be translated into 5.7% in fuel saving or 4.5kg/100 kg of CO<sub>2</sub> emissions reduction.<sup>7</sup>

<sup>5</sup> Including a joint venture in Dortmund, Germany (Deutsche Gasrußwerke).

<sup>6</sup> ASTM grades refers to standard grades of carbon black as defined by ASTM International

<sup>7</sup> Based on internal estimates. This assumes truck fuel consumption of 30 liter per 100 km. Standard ASTM grades include N100 to N700 grades. Their comparative TRG grades include, among others, ECX S204, ECX S600, and HP130.



In addition to our process engineering capability, we also have the broadest range of technologies for carbon black production, including furnace blacks, gas blacks, lamp blacks, thermal blacks and acetylene blacks. By combining our engineering knowhow and the technology choices, we offer a wide range of customized carbon blacks that are fit for purpose in specialized applications, such as coatings, polymers, printing and batteries. (Visit our website, <https://www.orioncarbons.com>, for detailed information about our product offering).

We also generate electric power, steam, and hot water with tail gas, a byproduct from our carbon black production process. The various forms of energy produced with tail gas are either consumed internally or sold to third party customers. This has the effect of reducing fossil fuel consumption.

Protecting people and the environment, fair treatment of our supply chain partners, engagement with our host communities, and a clear alignment to the needs of our customers are the essential components of our business and operational activities. Our Global Integrated Management System is grounded in the principles of the ISO 9001 Quality Management System, ISO 14001 Environmental Management Systems, OSHAS 18001 Safety Management System, ANSI Z-10 and OSHA VPP. It is designed to eliminate or minimize risks to people, communities, the environment, and other interested parties who could be affected by our activities. We take a precautionary approach when evaluating potential environmental, health and safety risks of our operations and products with a goal of timely action. Our management system aims to continuously improve toward best practices.

We are a member of the following associations:

- International Carbon Black Association
- Verband der Chemischen Industrie (VCI) and Verband der Mineralfarbenindustrie (VdMI)
- Eurocolour e.V
- Local emergency response committees at site locations where such committees exist

### Our Kalscheuren site celebrated its 125th anniversary in 2020



Kalscheuren site in 1953



Modern day view of Kalscheuren plant

Our Kalscheuren site, established in 1985, is the host to our first and largest production facility in Europe, as well as to our principal innovation center.<sup>8</sup> The site uses three distinct carbon black production technologies: furnace black, gas black and lamp black. The innovation function (R&D) also operates a pilot line which is utilized not only for new product development, but also in driving quality control, efficiency and productivity.

<sup>8</sup> A more detailed history of the Kalscheuren plant can be found on our website at <https://history.evonik.com/en/locations/former-sites/kalscheuren>. See <https://www.orioncarbons.com/history> for Orion's history.

## OUR SUSTAINABILITY STRATEGY

We believe that climate change is real and that decisive actions are needed to transition toward a low carbon future. We believe that the two key trends most relevant to our industry and required for this transition are decarbonization and the establishment of circular economy for tires.

Decarbonization is largely about reducing, if not eliminating, CO<sub>2</sub> emissions arising from the use of fossil fuel. In the mobility sector, electrification coupled with renewable power are seen as providing an effective alternative to fossil fuel-based internal combustion engine systems. In the petrochemical sector, including the carbon black industry, the challenge is to reduce and eventually eliminate CO<sub>2</sub> emissions from the production process.

The tire industry is the largest consumer of carbon black with tire producers estimated to account for more than 70% of global demand. Therefore, a key component to achieving a low carbon future in this sector is to establish an effective process to recycle end-of-life tires (ELTs) in a technically, environmentally and economically viable manner.

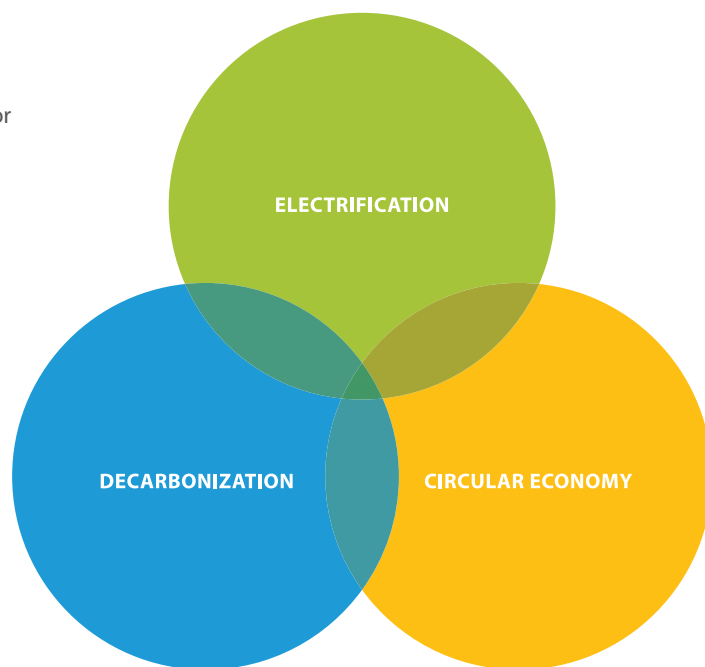
This presents us with the following challenges and opportunities:

- Decarbonization of our carbon black production process
- Contributing towards ELT circularity
- Supporting electrification in the mobility and other sectors

As we tackle and find solutions to these challenges, we expect our product portfolio to shift toward:

- Renewable carbon black
- Circular carbon black
- Enabling carbon black

*Set forth below is our strategy to achieve the portfolio transition.*



### Decarbonization

According to Notch Consulting, the global demand for carbon black in 2020 was estimated to be 11.9 million MT.<sup>9</sup> For convenience, if we assume GHG intensity rate of 2.0 for the industry as a whole, then the GHG emitted by the carbon black industry as a whole would be 23.8 million MT. Notch Consulting's forecast of carbon black demand in 2029 is 18.7 million tons.<sup>10</sup> Using the same intensity rate, GHG emission associated with the carbon black industry would increase by 13.6 million MT to 37.4 million MT. Proactive measures are needed to reverse this trend.

Within the confines of existing and visible technology trends, we believe that one of the most capital efficient means of decarbonizing production process is the use of renewable oil as feedstock. As demonstrated by *PRINTEX® Nature*<sup>11</sup> and *ECORAX Nature*<sup>12</sup>, our first generation of renewable carbon black from industrial grade vegetable oils, this is a technically feasible solution. However, there are a number of challenges to fully substituting renewable oil for fossil fuel in the carbon black production.

We are committed to solving those challenges. We are exploring various types of renewable oil, including non-edible sources that do not conflict with other important sustainability initiatives. For instance, we are working with the Research Institute of Sweden to assess the feasibility of producing carbon black using renewable oil derived from pine and spruce stem wood as feedstock. We are also continuing our research to broaden the portfolio of carbon black products that can be produced from other renewable oils.

<sup>9</sup> See Carbon Black World Data Book 2020 (July 2020) from Notch Consulting, Inc.

<sup>11</sup> Applicable in polymers, coatings and printing inks.

<sup>12</sup> Applicable in tires and MRGs.

ELT Circularity

Oil derived from natural and synthetic rubbers can be extracted from ELTs. We have been working on the feasibility of using the extracted oil to make carbon black for tire applications.<sup>13</sup> In this way, a component of worn out tires can be recycled back to new tires as part of a circular economy. It will also reduce the carbon black industry’s dependence on fossil fuel based conventional feedstock.

Carbon Black Enabling Electrification

As the mobility sector is transformed by EVs, the demand for conductive carbon black – such as our acetylene black (PRINTEX® Kappa 100 and 400) – is expected to grow to support the demand for LiBs. We believe that we have an important role as a conductive carbon black supplier to grow with the sector to support the transformation of mobility. EVs also require different tires than the ones typically found on internal-combustion-engine vehicles (ICEV). EVs are heavier with higher engine torque, requiring tires that can handle greater weight and are more durable. We offer enabling solutions to our tire customers through our family of technically advanced carbon blacks.

OUR GOVERNANCE STRUCTURE

Our Board of Directors’ Nominating, Sustainability and Governance Committee oversees Orion’s strategy, activities and policies relating to environmental, social and governance related matters that comprise sustainability and makes recommendations to the Board. Orion’s CEO has the accountability for sustainability to the Board with the mandate for strategy, risk management and opportunity capture, performance target setting and delivery, resource allocation, and capturing lessons learned. The CEO is supported by his direct reports who are responsible for businesses and various functions in carrying out the Board-mandated responsibilities for embedding sustainability into the Orion management framework and corporate strategy.

Governance Structure

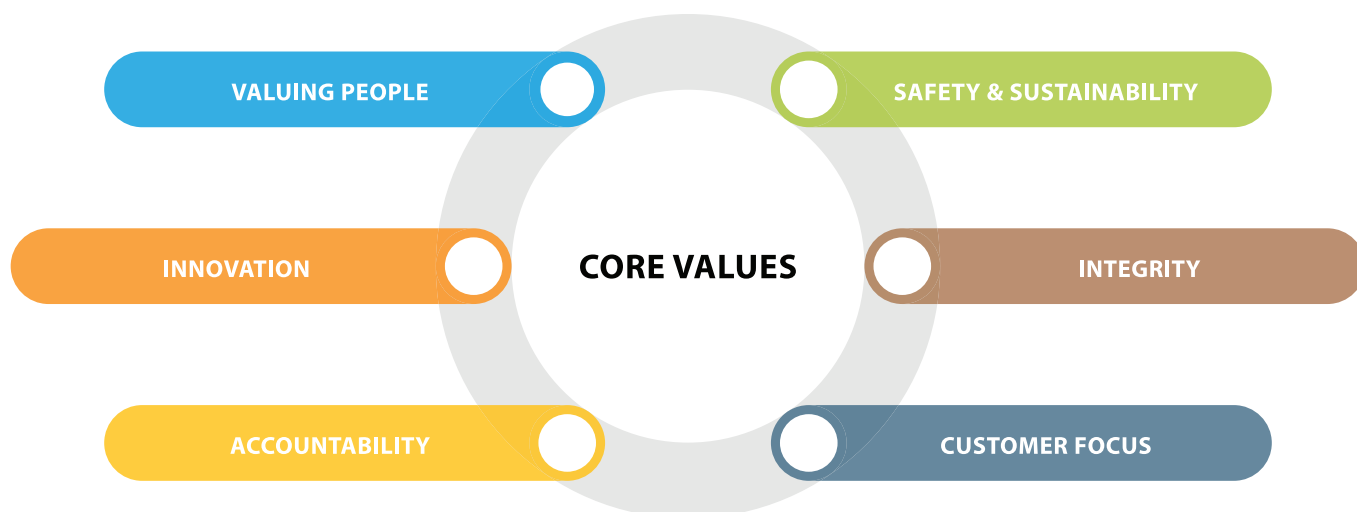


<sup>13</sup> We are a member of the BlackCycle project, which is a European Union funded project led by Michelin.

## OUR VALUES

Orion is a carbon black specialist. We are a group of people who are passionate about carbon black. In our day-to-day activities, the passion we have for our business is guided by our values.

These values have been identified by our employees as being core to who we are and to what we are committed to becoming. These values express our commitment to excellence. They include commitment to compliance with applicable environmental, labor, trade, fair business practice and other laws and regulations, and with ethical business practices; to building a diverse, equitable and inclusive culture and to investing in our people (for example in training and development); to fair dealings with our suppliers; and to the development and production of carbon blacks that not only meet health standards, but also enable enhanced environmental performance across the value chain.



## STAKEHOLDERS AND ENGAGEMENT PLATFORMS

We aspire to gain the trust of our stakeholders by being a responsible corporate citizen. Our assessment of material sustainability topics that are reported through this report has been informed by our engagement with our stakeholders, including investors, customers, employees, local communities, regulators and policy makers and suppliers.

### INVESTORS AND LENDERS

SEC filings, quarterly earning call, in-person meetings, conferences and calls.

In 2020, we held 623 engagements with investors and analysts.

### EMPLOYEES

CEO monthly briefings to company leaders and video recordings, management site visits and employee meetings, D&I listening sessions, town halls, intranet communications, and trainings (classroom, one-on-one and electronic).

### REGULATORS

Site visits, inspections, filings and other engagements through various official forums.

### CUSTOMERS

Direct engagement, joint development projects, site visits, site audits, surveys and sustainability performance reviews.

### COMMUNITIES

Community events, site visits, sponsorship programs, charitable giving and staff volunteerism.

### SUPPLIERS

Supplier site visits, inspections, audits (risk-based prioritization), meetings and technical briefings.



# SUSTAINABLE GROWTH

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We have been in the carbon black business for over 150 years. Our resilience throughout the years speaks loudly to our ability to adapt to changes in the market and evolve with it. We are keenly aware that to continue our business over the long term, we must offer effective solutions to address climate change and our customers' evolving needs

For the description and evaluation of our management approach, see Attachment 4, which summarizes our integrated Global Management System of environment, health, safety and quality.

## EMISSIONS

Our environmental impact is measured by emission levels of greenhouse gases (GHG), sulfur dioxide (SO<sub>2</sub>), nitrogen oxide (NO<sub>x</sub>) and particulate matters (PM). We are committed to minimizing our environmental footprint through the technologies we discussed earlier (e.g., renewable feedstocks), enhancements in our operational efficiency and application of air pollution control systems. For instance, our greenhouse gas emissions are closely linked to the operational efficiency of our current technology. Carbon black is produced by processing a hydrocarbon feedstock. Therefore, the more carbon we can recover from the feedstock (i.e., improvements in operational efficiency), the less carbon is converted to CO<sub>2</sub>. Improvements in efficiency mean higher yield, more product and lower costs. We are economically incentivized to reduce our greenhouse gas emissions level.

Management of day-to-day operations to minimize emissions and achieve the stated targets for emissions reduction rests with the global operations function which captures and disseminates best operating practices across our production sites. We have made investments over the years to improve our efficiency and thereby reduce GHG and to install air pollution control systems throughout our global network of production sites. These investments are intended to improve productivity and efficiency and ensure compliance with operating permits and licenses, as well as with the applicable environmental laws and regulations. Productivity data is collected at the individual production site level to evaluate their respective performance levels. Options are developed for continuous improvements in productivity and efficiency, which drives reduction in energy consumption, emission of air pollutants and production costs. GHGs and other emissions are included in our group-level enterprise risk profile and are managed as such.

We will continue to invest in measures to improve yield (thereby reducing GHG emissions) and new pollution control systems to achieve our stated targets. See Attachment 4 for the summary of our management approach and evaluation of the management approach of our global, environment, health, safety and quality management system.

In 2020, we saw year-over-year improvements in SO<sub>2</sub>, NO<sub>x</sub>, and PM emissions intensity rates - 11%, 7%, and 1% reductions, respectively. For instance, the improvements in SO<sub>2</sub> emissions resulted from installing additional emissions control systems and the use of lower sulfur content feedstock. We installed additional PM detectors in our U.S. sites to help drive future reductions.

The actual GHG intensity rate increased moderately in relation to 2019 levels by 0.9%. Unique operating conditions of 2020 from the pandemic that required multiple shutdowns and restarts are believed to be a contributing factor. On a normalized basis, our GHG intensity rate remained flat. Our normalized GHG intensity in 2020 was 5% lower than our 2014 base, achieving over 60% of our target reduction rate of 8%.

## Emissions Targets and 2020 Status

	NORMALIZED SCOPE 1 GHG INTENSITY <sup>(2)</sup>	SO <sub>2</sub> INTENSITY	NOX INTENSITY	PM INTENSITY
TARGETS <sup>(1)</sup>	8% REDUCTION	50% REDUCTION	25% REDUCTION	15% REDUCTION
2020 STATUS VS 2014	-5%	-17%	-5%	+1%

(1) All targets are set against 2014 baseline for achievement by 2029.

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

## Actual Emissions and Intensity Rates

GHG — SCOPE 1	2020	2019	2018
EMISSIONS (MN MT GHG)	1.9	2.3	2.5
INTENSITY* (MT GHG/MT PRODUCTION)	2.38	2.36	2.41

SO <sub>2</sub>	2020	2019	2018
EMISSIONS (K MT SO <sub>2</sub> )	12.6	16.9	18.6
INTENSITY (KG SO <sub>2</sub> / MT PRODUCTION)	15.72	17.68	18.31

GHG — SCOPE 2	2020	2019	2018
EMISSIONS (k MT GHG)	170	182	180
INTENSITY (MT GHG/MT PRODUCTION)	0.21	0.19	0.18

NO <sub>x</sub>	2020	2019	2018
EMISSIONS (k MT SO <sub>2</sub> )	4.0	5.2	5.3
INTENSITY (KG NO <sub>x</sub> /MT PRODUCTION)	5.03	5.40	5.17

NORMALIZED SCOPE 1	2020	2019	2018
INTENSITY (MT SO <sub>2</sub> /MT PRODUCTION)	2.33	2.33	2.27

PM	2020	2019	2018
EMISSIONS (K MT PM)	0.5	0.6	0.6
INTENSITY (MT SO <sub>2</sub> /MT PRODUCTION)	2.33	2.33	2.27

\* 2019 and 2018 Scope 1 GHG intensity values have been corrected from 2.42 and 2.48, respectively. Confirmation of the 2020 GHG emissions data for Scope 1 and Scope 2 by the authorities remain pending at one of our sites as of the publication date.

## ENERGY

Energy is not only a critical input in the carbon black production process but is also an output. The energy we consume is in the form of feedstock, natural gas, electric power, heat, and steam. In turn, the carbon black production process generates not only carbon black but also heat and tail gas, which has residual energy content that can be used as fuel.

We have a two-pronged approach to energy management. One is to minimize the input energy and the other is to maximize the use of waste energy generated from the carbon black production process.





We are committed to reducing energy consumption through improvements in productivity and efficiency to the extent possible with our specialty centric product portfolio. Generally, compared against standard ASTM products<sup>14</sup>, energy intensity is higher for specialized carbon black designed for specific functionality required by our customers. For instance, our technically advanced rubber grades designed to improve rolling resistance to enhance tire fuel mileage require higher energy intensity than corresponding standard grades. Compared against the competition, we have a higher share of specialized products in our portfolio. While we remain committed to improving our energy intensity, this needs to be balanced against our role as the industry solution provider to our customers.

We are also committed to recirculating waste heat back into the production process and utilizing the byproduct tail gas to produce energy for internal consumption and third-party sales. At the group level, our overall tail gas utilization rate<sup>15</sup> is estimated to be 76%. Our new energy target is to increase our tail gas utilization rate by 4% to 79% by 2029.

Energy is managed through collaboration of global operations, regions, individual production sites, feedstock and energy procurement functions and the innovation function (R&D). We collect and analyze the individual production site level energy input and output data and keep track of key performance parameters. Options are developed for continuous improvements in productivity and efficiency to drive reductions in energy consumption, emission of air pollutants and value generation (including reduction of production cost and revenue enhancement).

ENERGY	2020	2019	2018	ENERGY TARGET	TARGET	2020
ENERGY CONSUMPTION (TWH) <sup>(1)</sup>	18.1	21.3	22.8	TAIL GAS UTILIZATION RATE <sup>(3)</sup>	79%	76%
INTENSITY <sup>(2)</sup>	2.05	2.05	2.06			

<sup>(1)</sup> 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.

<sup>(2)</sup> Total energy consumed in TWhs divided by total useful energy in TWhs (including carbon black and energy produced).

<sup>(3)</sup> Tail gas usage in the production of energy for internal or third-party consumption.

<sup>14</sup> ASTM products refer to carbon black grades that meet the colloidal properties defined by ASTM. They are typically viewed as being standardized, commodity products.

<sup>15</sup> Tail gas utilization rate is based on the utilization of the waste heat generated from tail gas that must be incinerated as part of our carbon black production process and statutory environmental obligations.





## WATER

Consistent and uninterrupted supply of water is critical to our operations. Water is used in the production of carbon black and steam (with waste tail gas). Steam, in turn, is (i) used in carbon black production and in electric power generation (for captive and external use) or (ii) sold to external customers (including hot water). Water is a shared, vital resource. We are committed to minimizing the consumption of water in our operations and ensuring that wastewater is treated in compliance with the applicable laws and regulations before it is discharged. Water is drawn from surface water, wells, municipalities and retention ponds and is discharged to sanitary sewers, municipalities, natural bodies of water and collection ponds.

Responsibility for water management rests with the global operations function and the individual production sites. We monitor our consumption levels and closely check the quality of wastewater to ensure that they are properly treated in compliance with the applicable legal requirements before they are discharged.

WATER INFLOW	2020	2019	2018
INFLOW (MILLION M <sup>3</sup> ) <sup>(1)</sup>	11.3	11.4	11.2
SURFACE WATER	27%	22%	22%
WELL WATER	16%	17%	19%
MUNICIPALITY	52%	58%	56%
RETENTION POND	5%	3%	3%
WATER INTENSITY	9.8	7.6	7.3

WATER OUTFLOW	2020	2019	2018
OUTFLOW (MILLION M <sup>3</sup> ) <sup>(3)</sup>	3.4	4.1	3.8
SANITARY SEWER <sup>(4)</sup>	2%	2%	3%
MUNICIPALITY <sup>(5)</sup>	26%	20%	22%
NATURAL BODY OF WATER/ COLLECTION POND <sup>(6)</sup>	72%	78%	75%

<sup>(1)</sup> 2018 water inflow data has been corrected from 11.3 million m<sup>3</sup>.

<sup>(2)</sup> Water intensity is based on the difference between water inflow and outflow divided by the total production volume.

<sup>(3)</sup> 2018 water outflow data has been corrected from 3.9 million m<sup>3</sup>.

<sup>(4)</sup> 2018 data for water outflow to sanitary sewer has been corrected from 4%.

<sup>(5)</sup> 2019 data for water outflow to municipality has been corrected from 19%.

<sup>(6)</sup> 2019 and 2018 data for water outflow to natural body of water/collection pond have been corrected from 79% and 74%, respectively.

## WASTE AND SPILLS

Waste is generated from our production process, including both non-hazardous and hazardous industrial wastes. We also use materials in our production process that contain chemical components that are classified as hazardous, including coal tar and petroleum-based feedstock. There is a risk of spills of hazardous materials. We are acutely aware of the potential harm improper handling of waste and hazardous materials can have on the environment. Therefore, there is a strong focus on mechanical reliability and eliminating the possibility of any loss of primary containment.

We are committed to minimizing waste generation and to its proper handling and disposal in full compliance with all applicable laws and regulations. We are committed to its recycling, reuse, and recovery. However, we experience spikes in waste generation from time to time for various operational reasons. For instance, we periodically examine the integrity of our storage tanks by applying both non-intrusive and intrusive methods. Periodically we clean out the tanks for mechanical, integrity inspections. The accumulated bottom oil – heavy slurry residues that cannot be used in the production process – is disposed of as waste according to

local regulations. As we further reduce SO<sub>2</sub> emissions, certain sites may experience increases in sludge from the deSO<sub>x</sub> units. We are also committed to prevention of unintended, accidental spills of hazardous materials.

Waste management and prevention of spillages of hazardous materials begin with having a clear set of standards for their proper handling, storage, transportation and, in the case of wastes, disposal. Our applicable standards are set out in our Global Management System (GMS). They are designed to assure compliance with not only the applicable laws and regulations but also with best practices. Our global ESH function is responsible for keeping the applicable GMS standards updated and relevant. Training is provided to site employees and contractors. Global operations, working with the regional and local EHS professionals, is responsible for their implementation at each site. Audits are carried out periodically to ensure compliance. Any findings requiring corrective actions are recorded and monitored to timely closure.

We closely monitor spills and release events at our operating sites. In 2020, there were no significant spills or releases (as defined below).

WASTE GENERATION (k MT)	2020	2019	2018
WASTE*	12.6	15.9	16.2
GENERAL AND NH INDUSTRIAL	11.3	13.5	12.7
HAZARDOUS WASTE	1.3	2.4	3.5

\* 2019 and 2018 waste data have been corrected from 18.7 kMT and 21.6 kMT, respectively. As previously reported, 2019 hazardous waste data does not include 5.1 kMT of pre-existing asbestos that was discovered at one of our sites. The discovered waste was duly disposed of in accordance with the applicable laws.

WASTE DISPOSAL METHOD (k MT)	2020	2019	2018
LANDFILLED	8.6	9.2	11.4
RECYCLED, REUSED & RECOVERED	4.0	6.2	4.1
INCINERATED	0.0	0.5	0.8

WATER INTENSITY	2020	2019	2018
Kg/MT PRODUCTION*	15.7	16.6	16.0

\* 2019 and 2018 intensity have been corrected from 19.5 and 21.2, respectively.

SIGNIFICANT SPILLS*	2020	2019	2018
NUMBER OF INCIDENTS	0	0	0

\* 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.

2020 WASTE DISPOSAL METHOD (k MT)	GENERAL AND NON-HAZARDOUS	HAZARDOUS
LANDFILLED	7.6	1.0
RECYCLED, REUSED & RECOVERED	3.8	0.2
INCINERATED	0.0	0.0

## PRODUCT STEWARDSHIP

Our customers use carbon black for specific purposes to improve the properties of their own products. As the technology leader of the carbon black industry, we are at the vanguard in providing solutions to our customers to enable their own progress in sustainability. We are committed to monitoring the development of health and safety issues and regulations with respect to carbon black to ensure that our products do not cause harm to those who come in close contact with our products, whether they are our customers or our own people.

We closely monitor the quality of our products and provide detailed information about our products. To protect our customers' health and safety, we provide information on the intended use of our products and how to correctly handle and store them. We also comply with the United Nations standard set out in "Globally Harmonized System of Classification and Labelling of Chemicals" and the regional implementation laws.

All aspects of product stewardship are managed collectively by global operations, the EHS function, the innovation function (R&D), the business lines, the technical marketing functions, the individual production sites and regions. We work closely with renowned universities and research institutes to monitor the latest developments in health and safety matters relating to carbon black, as well as in technologies relevant to improving our product quality. All of our sites are ISO 9001 certified.

In addition, we are focusing on enhancing the sustainability of our products along three specific fronts:

- Decarbonization of our production process to offer renewable carbon black;
- Circularity of end-of-life tires by producing carbon black from ELT derived oil; and,
- Providing solutions through our enabling carbon black to support the transition to a low carbon economy (e.g., conductive carbon black for LiBs) and in addressing the needs of our customers to advance their sustainability initiatives.





# COMPLIANCE

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Whether at our operating sites or in the way we conduct our business, we are committed to complying with all applicable laws and regulations. Compliance is managed through our assurance program. It starts with knowing the applicable laws and regulations. We have established an EHS database for such purposes. Our professionals, with the support of external consultants, proactively keep close track of new and amended laws and regulations, update our EHS database, and conduct mandatory training programs to keep our employees fully informed. Compliance is then checked through periodic self-assessments, frequent interactions with management and subject matter experts, and compliance audits. The results of the compliance assessments and audits are documented and captured in an electronic database. Where compliance issues are identified, appropriate corrective actions are prescribed and tracked to timely closure.

## OPERATIONAL COMPLIANCE

Operational compliance at each individual operating site is managed through the site leadership team, including the site manager, with the support of the EHS professionals and subject matter experts. All applicable laws and regulations at the national level are monitored at the regional level and those applicable to the specific site locations are monitored at the site level. Regular and periodic compliance trainings are carried out at each operating site by the EHS professionals and subject matter experts.

In addition to self-assessments and compliance audits, our compliance assurance program is further augmented by third-party certification auditors who periodically conduct compliance audits. Findings are duly recorded and required corrective actions are followed to timely closure.

All operating sites are certified to ISO 9001 and ISO 14001 standards<sup>16</sup>.

ENVIRONMENTAL NON-COMPLIANCE INCIDENTS*	2020	2019	2018
NUMBER OF INCIDENTS	0	2	1

\*Reported on exceedances and violations for which fines were levied by the authorities.

## BUSINESS COMPLIANCE AND CODE OF CONDUCT

We believe that our integrity as a business – the foundation for earning the trust of our stakeholders – is expressed through our commitment to compliance in the way we conduct our business. Our commitment to compliance is expressed in our Code of Conduct. This commitment is not limited to how Orion conducts its business; we seek from our suppliers the same commitment.

*Trust does not come automatically and it must be earned on a continuous basis. The laws of countries where Orion Engineered Carbons operates must be observed of course, but more is required. As a responsible company Orion Engineered Carbons has adopted globally applicable principles of individual and collective behavior defining how the company conducts its business. A high degree of social, legal and ethical compliance is expected of all employees and all of those with whom we do business. (Excerpts from Orion's Code of Conduct)*

The level of risk and legal compliance standards can vary from country to country. For certain subject matters, such as prevention of corruption, we believe that it is important to have one common standard that uniformly applies to all of Orion. In addition to the general adherence with laws, we have elected to codify best practices into the Code of Conduct. Our Code of Conduct applies to all Orion employees and to all associated persons who provide services for or on behalf of Orion, including agents.

Compliance is assured through proactive engagements at all levels of the organization, starting with our CEO, and the compliance controls in place, as well as the verification processes that include internal audits. We have an effective whistle blower program (managed by the Chief Compliance Officer) that assures anonymity of the whistle blowers. Compliance with the Code of Conduct is also verified through a semi-annual certification process in which Regional Compliance Officers report on issues of concern. These matters are reviewed, and appropriate actions are taken where warranted, including investigations. Our General Counsel is also the Chief Compliance Officer. Compliance is reviewed by the management on a regular, periodic basis. Depending on the topic, compliance is reported to the Audit Committee and the Nominating, Sustainability, and Governance Committee of the Board of Directors, regularly.

<sup>16</sup> Our site in France is undergoing ISO 14001 certification process.

We conduct mandatory compliance trainings for all employees on a regular basis, including yearly web-based trainings and (to the extent feasible) class-room trainings. Such compliance trainings are conducted by Orion's legal department, in some instances with the support of local legal counsel, under the supervision of the Chief Compliance Officer. The compliance trainings are designed to familiarize our employees with not only the broad range of subject matters covered under the Code of Conduct, but also with our compliance management system. They are designed to enhance their awareness of potential risks. We aspire to achieve a coverage ratio of 100% of our entire workforce but have set our target at 95% in view of employees in transition.

## Our Code of Conduct Covers:

### Business Conduct

Observance of all laws and regulations	Offering and granting advantages
Preventive legal counsel	Use of company property and resources
Basic labor rights	Integrity in reporting
Anti-corruption	External communications
Requesting and accepting advantages	

### Business Relations

Equal treatment and fair practices
Business incentives
Payments

### Avoiding Conflicts of Interest

Secondary Employment	IT security
Substantial financial interest in competitors, customers, and suppliers	Maintaining the confidentiality of internal information/ trade and business secrets
Contracts/business transactions with relatives	Foreign trade and export control
Insider trading	Tax laws
Competition and antitrust law	Environment protection, health, and safety
Political involvement and contributions	Data Protection
Human rights, equal treatment, and fair practice	

### Practical Implementation of Compliance Rules

Responsibilities	Commitment to all employees
— supervisor's responsibility to ensure compliance	Training
— every employee's responsibility to report violations	Compliance at OEC group companies
Sanctions and consequences	Compliance by business partners

CODE OF CONDUCT TRAINING	TARGET <sup>(1)</sup>	2020	2019	2018 <sup>(2)</sup>
EMPLOYEES RECEIVING CODE OF CONDUCT TRAINING	95%	87%	79%	88%

(1) Target set for achievement by 2029

(2) 2018 data has been corrected from 89%



## OPERATIONAL SAFETY

Safety is one of our core values. It is part of our culture and central to our operational management system. We are committed to providing our employees and contractors (irrespective of whether they are under our control) who enter our premises with a safe and healthy working environment. Our goal is that everyone who enters our operating sites exits in the same condition. Our target for recordable incident rate, lost time rate and process safety incidents are all zero.

Our standards and procedures for operational safety – set out in the EHS chapters of the Orion Global Management System (see Attachment 4) – are grounded in OSHAS 18001 Safety Management System, ANSI Z-10 and OSHA VPP principles. Our management approach is intended to eliminate or minimize risks to people, communities, the environment and other stakeholders who could be affected by our activities. Risk assessments have been carried out for activities taking place at our operating sites and applicable rules and processes that reflect best practices have been codified in our operating manuals. Through our work permit process, further detailed safety analysis is completed before maintenance and other activities are undertaken at our operating sites in order to ensure that those involved in the activities are made aware of the risks and sufficient actions are taken ahead of the work to establish a safe environment. Near misses are reported to learn and improve our safety procedures and rules. Our standards and procedures are updated by the EHS function, working with subject matter experts, to reflect best practices and changes in industry standards. Recognizing that safety requires commitment and participation of all our employees, all of our operating sites have joint management-labor safety committees where employees are represented to discuss and take actions on operational health and safety matters.

## GLOBAL ENVIRONMENTAL HEALTH, SAFETY & QUALITY (EHSQ), ENERGY AND SUSTAINABILITY POLICY

**“At Orion we strive to be the best supplier of carbon black in the world. We do this while protecting the environment, keeping our employees healthy and safe, complying with all regulations and being good stewards of our energy use. We know there are always opportunities to get better. Working with our customers, suppliers and team members we aim to improve and create solutions that provide great value to all. At Orion, we know black.”**

**Corning Painter, CEO**

**July 2020**

Periodic employee and contractor training is held. Compliance audits are carried out to prevent lapses in both procedural and substantive compliance. When there is a safety incident, including significant near misses, underlying root causes are investigated and analyzed to put in corrective measures to prevent their recurrence. The nature of the incident, as well as the results of the investigation, are shared across all of our operating sites.

Orion's Chief Executive Officer sets the expectations for creating a healthy and safe working environment for everyone who works at any of our operating 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 Orion controlled sites. Safety performance is monitored globally and locally and corrective actions are taken where warranted. Site leaders have responsibility for overseeing EHS performance at their respective sites. They are supported by the EHS professionals and subject matter experts. Safety performance is part of the executive team's performance reviews that take place at regular intervals. Safety incidents are reviewed by the operations function and the EHS function with the view to ensuring that corrective actions are taken not only at the site in question, but also at other sites as applicable. Significant safety issues are reported to and reviewed by the Chief Executive Officer and the Board of Directors.

In response to the 2019 performance, we undertook a series of measures to improve our safety performance. These measures included actions to:

- Increase employee engagement and collaboration at all sites;
- Improve contractor safety; and,
- Increase near-miss investigations and reporting with emphasis on eliminating root causes of the incidents.

We share incidents and learnings globally to ensure that all of our plants learn from those incidents. We saw the benefits of these actions in 2020. Compared against 2019, the days away from work (DAFW) case rate in 2020 declined by 50% to our 2018 levels, and the incident case rate fell by more than 60%.

In 2020, we continued our safety journey toward a more interdependent, sustainable safety culture by challenging our workers to be more engaged and become active participants in resolving workplace safety concerns. We placed a special emphasis on

- Improving work permits and simplifying the process;
- Continued encouragement of near miss reporting and root cause elimination;
- Reducing the response time to employee safety observations and concerns; and,
- Accelerating the pace of equipment up-grades such as machine guarding, and upgrades to improve mechanical integrity.

The long-term target is to develop a sustainable culture that is (i) marked by strong teamwork and commitment to safety performance and (ii) supported by an interdependent collaboration between employees and leadership.

OPERATIONAL SAFETY	2020	2019	2018
DAFW CASE RATE	0.12	0.24	0.12
TOTAL RECORDABLE INCIDENT CASE RATE	0.19	0.48	0.30
PROCESS SAFETY EVENT*	11	-	-
EMPLOYEE FATALITIES	0	0	0
CONTRACTOR FATALITIES	0	1	0

\* Following CCPS<sup>17</sup> 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.

<sup>17</sup> Center for Chemical Process Safety



# LIVING OUR VALUES

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Our people – a group of individuals with diverse cultural and national backgrounds who share a common passion for carbon black – are the enabling force that is an essential source of competitive differentiation. Our success depends on attracting, recruiting, retaining and developing a diverse, talented global workforce.

Our employees enjoy comprehensive benefits programs that are market competitive and in full compliance with applicable laws and regulations. While the details vary from location to location, they include healthcare, insurance (e.g., life, accidental, disability, business travel related medical and accidental), paid vacation, leave entitlement (including parental, sick leave, etc.), retirement plans, and others.

We are committed to providing our employees with equal opportunities for learning and personal growth in an environment where creativity and innovation are encouraged. To this end, our aspiration is to be the employer of choice in our industry. With this in mind, we have reviewed our existing talent management programs and have started taking actions to augment and modify the existing programs to provide an effective platform for all of our employees to be trained and developed, and to provide them with an opportunity to grow and achieve their individual aspirations.

In December 2019, we initiated our first employee survey, in which over 90% of our employees participated. The results were analyzed, and specific improvement actions were developed in 2020.

## DIVERSITY, EQUITY & INCLUSION

Orion is made up of over 1,400 employees with operating assets, laboratories, and offices in 13 countries across three regions – Americas, Asia Pacific and EMEA<sup>18</sup>. Inspiring the entire Orion workforce to function as one team is critical to our success. We believe this is possible when we accept and value each individual for who they are. Indeed, valuing people is one of Orion's core values which define who we are and the expectation we have of Orion employees in our interactions with each other, customers, suppliers, and the host communities. Building on this foundation, we value our people irrespective of their nationality, race, gender, sexual orientation, gender identification, religion, disability and age, among others; and we strive to put this into practice when hiring, developing and retaining talent.

Our commitment to diversity, equity and inclusion (DE&I) is stated in our policies. The global HR function is responsible for establishing DE&I policy; and the business lines, global operations, and the regions are responsible for ensuring compliance with the policy. Our employees with line responsibilities are assigned DE&I trainings. We encourage our employees to raise any DE&I concerns through the line management or through our whistle blower system. We also held listening sessions in 2020 to encourage full participation. Discrimination claims are investigated jointly by HR and Legal. The range of actions taken following the investigation includes, no action, policy review, training, discipline and termination. Depending on the nature of the incident, a decision to take actions may occur even if

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<sup>18</sup> Europe, Middle East, and Africa



the underlying claim was found to be unsubstantiated. There was one discrimination claim in 2020. The matter was determined to be unsubstantiated. However, to reinforce the importance of DE&I, training was required for the relevant individuals.

In 2020, we enhanced our Board of Directors by increasing the representation of women and further diversifying the nationality profile of its members.

## TALENT MANAGEMENT & DEVELOPMENT

Aligning employee engagement and enablement is integral to the continued success of Orion. We have built a value system around a foundation of appreciating our employees through trust, respect, and development. To ensure our employees are both motivated to do their work and are equipped with the right tools and training to be successful, we start with listening. We use employee surveys and listening sessions to help ensure all the voices of our employees are heard. In 2020, we used the feedback from our employee survey and listening sessions to further prioritize our human resources strategy by making significant investments in a new learning platform, mentoring program and performance management system. Further,

we have upgraded our talent management and development programs, focusing on specific actions to improve learning and development, and to promote employee development and career growth.

To affirm our commitment to talent development, we have focused our programs on, and invested in, (i) formal learning programs to equip individual employees with the technical and functional skills required for the current and future roles, (ii) on the job training through assignments (roles and projects), (iii) formal and informal mentoring programs, (iv) formal and informal performance reviews with line managers and others, as well as (v) individual development plans. As part of succession planning, key talents with potential to succeed critical roles are reviewed and appropriate development opportunities are given to prepare them for the more challenging roles in the future. Global HR is responsible for establishing talent management and development strategy, as well as the tools for implementation.

We believe we offer employees greater than average opportunities to work in multinational teams. Going forward cross-cultural competency will be a training focus for us.



## EMPLOYEE REPRESENTATION

Employee representation continues to play a key role in our success; and we value the exchange of views with the local unions and works councils. We strive to partner with our employee representatives (who represent 50% of our employees) to regularly exchange information on how to best ensure success for both our employees and the company.

EMPLOYEES BY GENDER	2020	2019	2018
TOTAL EMPLOYEES	1448	1456	1437
MALE EMPLOYEES (%)	1186 (82%)	1201 (82%)	1192 (83%)
FEMALE EMPLOYEES (%)	262 (18%)	255 (18%)	245 (17%)
FEMALES IN MANAGEMENT ROLES (%)	15%	14%	12%

U.S. EMPLOYEES BY ETHNICITY (2020)*	NUMBER OF EMPLOYEES	PERCENTAGE
TOTAL U.S. EMPLOYEES	307	100%
WHITE	227	74%
AFRICAN AMERICAN	35	11%
HISPANIC	28	9%
ASIAN	10	3%
OTHERS/UNDISCLOSED	7	3%

\* U.S. employees represent about 20% of the overall Orion population. The above classifications are based on U.S. reporting requirement and are not uniform globally. We are not permitted to collect such information in several countries where we operate.

EMPLOYEES BY REGION	2020	2019	2018
AMERICAS	360	375	349
APAC	316	330	328
EMEA	772	751	760

EMPLOYEES BY AGE GROUP	2020	2019	2018
<30 YEARS OF AGE	127	118	127
30-50 YEARS OF AGE	719	773	779
>50 YEARS OF AGE	602	565	531

EMPLOYEES IN BARGAINING UNIT	2020	2019	2018
NUMBER OF EMPLOYEES	715	713	719
AS A PERCENTAGE OF TOTAL	49%	49%	50%

VOLUNTARY TURNOVER RATE	2020	2019	2018
	4%	4%	4%



EMPLOYEES RECEIVING PERFORMANCE REVIEW	TARGET <sup>(1)</sup>	2020	2019	2018
AS A PERCENTAGE OF TOTAL	95%	57%	57%	55%
AS A PERCENTAGE OF EMPLOYEES ELIGIBLE EMPLOYMENT CONTRACT <sup>(2)</sup>	-	92%	90%	88%

(1) Target set for delivery by 2029

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

WORKFORCE RECEIVING TRAINING	TARGET	2020	2019	2018
AS A PERCENTAGE OF TOTAL	100%	96%	95%	93%

\* Target set for delivery by 2029

AVERAGE TRAINING HOURS	TARGET	2020	2019	2018
	40	18	16	13

NON-DISCRIMINATION	2020	2019	2018
CLAIMS ALLEGED	1	1	3
— Substantiated	0	1	1
— Unsubstantiated	1	0	2
CLAIMS CLOSED	1	1	3
CORRECTIVE ACTIONS TAKEN*	TRAINING	TERMINATION, TRAINING	TERMINATION, TRAINING

\* Options include no action, policy review, training, discipline, and termination



Upgraded co-generation facility at the Kalscheuren facility in Germany

## LOCAL COMMUNITY ENGAGEMENT

Communities in locations that host our operations are an important group of stakeholders who can reasonably be expected to be materially affected by our activities. We are aware that the continuation of our operations depends on gaining and maintaining the trust of our host communities as a contributing member.

We have an established policy, including an annual budgeting process, for local community engagement that encourages our sites to be a contributing member of their respective local host community through employee volunteerism and charitable donations. Each site defines the local community engagement plan and the charitable donation program based on the needs of their respective community. We made numerous charitable donations in 2020 with pandemic-related relief a common theme.

In addition, some of our sites are contributing to the local community in different ways. For instance, our facility at Kalscheuren near Cologne, Germany upgraded the co-generation facility and started providing heat generated with the tail gas (a byproduct of the carbon black production process) to the local district heating company, displacing previously used fossil fuel. At Kalscheuren, we also took measures to reduce the noise levels by installing noise insulation.

# VALUE CHAIN ENGAGEMENT

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Our commitment to sustainability (ESG) extends across the value chain, including our suppliers, who are an integral part of our operations in the production of carbon black and in delivering services to our customers.<sup>19</sup>

It is our expectation that all our suppliers comply with our Code of Conduct or their equivalents in the way they conduct their business and act responsibly in the management of their ESG risks, particularly in the following areas:

- Environment;
- Health (including REACH where applicable);
- Safety;
- Labor (working conditions, right to collective bargaining and actions, etc.);
- Business ethics;
- Human rights (e.g., prohibition against use of underaged workers and forced labor);
- Social policy matters (e.g., diversity and inclusion); and,
- Disclosure requirements.

Our suppliers are selected and managed by our global supply chain organization with supply chain professionals in each region. The supplier selection process begins with vetting. A risk-based approach is used in determining the extent of diligence in the vetting process that starts with the issuance of questionnaires to our potential suppliers with specific ESG related questions. Follow up inquiries are made where warranted. A condition for working with Orion is an agreement to adhere to our (i) Code of Conduct and (ii) Environmental Health & Safety Guidelines, or compatible standards. Part of the vetting process includes the assessment of their compliance assurance basis. For suppliers with less robust foundations, we help them to establish a compliance assurance baseline at an acceptable level. Their performance is monitored periodically. This process enables us to work with suppliers from developing economies where our engagement not only offers quality employment opportunities to the local economies, but also for our suppliers to adopt and incorporate the values reflected in our Code of Conduct into their business and management practices. To date, close to 98% of our suppliers (by value) have agreed to comply with our Code of Conduct or with its equivalent.

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<sup>19</sup> Our suppliers provide a wide range of goods and services required for our operations and delivery of services. They include feedstocks and chemical additives, process equipment, packaging materials, maintenance and repair services, engineering services, logistics services and other professional services.



Our process is supported by Orion's IT infrastructure, including our global procurement platform, that is intended to provide data transparency and accuracy to ensure a consistent and integrated flow of supplier spend data and serve as a universal access point to review supplier information. Data includes supplier audit information (including findings and follow up actions taken), supplier vetting data as well as relevant supplier certifications and contracts in place. This enables us to apply the same standards across all regions.

Part of our effort to strengthen supplier ESG includes improving our procurement professionals' skill set in identifying and assessing supplier ESG risks and in applying our standards when evaluating potential and existing suppliers, enabled by introduction of strategic category of buyers' organization setup. Development of sustainability acumen through additional training and sharing of best practices is a continuous improvement journey.

Our effort on our environmental footprint includes supporting our supply chain partners to minimize their own adverse impact on the environment. It includes a target to reduce CO2 emissions from outbound freight. This is an ambitious target that we will report against in the future. Solutions will depend on improvements from our logistics service providers. Also included in our sustainable procurement targets is the realization of circular economy in our value chain. We have implemented various 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. In the case of our target relating to paper bags (item 4) and FIBCs (item 5), we are working to find solutions to achieve our started targets. At present, however, none of our paper bags and FIBCs meet the minimum recycling, or the reusable criteria, set out in our targets. These efforts require full value chain participation, including our customers. Across the world, we are engaging our customers to join our efforts in collecting packaging wastes for reuse. Specific recycling targets for delivery by 2029 are set out below.

	TARGET	2020
1. SUPPLIERS SIGNING UP TO CODE OF CONDUCT <sup>(1)</sup>	100%	98%
2. USE OF PLASTIC PALLETS MADE OF RECYCLED MATERIALS <sup>(2)</sup>	100%	97%
3. USE OF REUSABLE PALLETS AT ALL SITES <sup>(3)</sup>	90%	76%
4. PAPER BAGS FROM RECYCLED PAPER <sup>(4)</sup>	95%	0%
5. USE OF REUSABLE FIBCS OR RECYCLED FIBC <sup>(5)</sup>	100%	0%
6. CO2 EMISSIONS REDUCTION FROM OUTBOUND FREIGHT	30%	-

<sup>(1)</sup> 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.

<sup>(2)</sup> Applies to sites using plastic pallets. Minimum recycled material content set at 60%.

<sup>(3)</sup> Applies to pallets used in outbound logistics as we have no control over inbound pallets. Target has been increased from 75% to 90%.

<sup>(4)</sup> Minimum recycled paper content set at 50%.

<sup>(5)</sup> 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%.

## 1. ESG TARGETS AND 2020 STATUS

### Emissions

Normalized GHG Intensity (CO <sub>2</sub> e ton / CB ton)	8% reduction vs 2014 base	2020 status: -5%
SO <sub>2</sub> Intensity (SO <sub>2</sub> kg / CB ton)	50% reduction vs 2014 base	2020 status: -17%
NO <sub>x</sub> Intensity (NO <sub>x</sub> kg / CB ton)	25% reduction vs 2014 base	2020 status: -5%
PM Intensity (PM kg / CB ton)	15% reduction vs 2014 base	2020 status: +1%

All targets set for delivery by 2029

### Energy

Tail gas utilization rate	79%	2020 status: 76%
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Target achieved by 2029

### Performance Reviews and Training

Employees receiving Code of Conduct training	95% <sup>(1)</sup>	2020 status: 87%
Employees receiving reg. perform. reviews	95% <sup>(1)</sup>	2020 status: 57%
Average training hours per employee	40 hours	2020 status: 18
Total workforce <sup>(2)</sup> receiving training	100%	2020 status: 96%

All targets set for delivery by 2029

(1) While aspiring to achieve 100% the target is set at 95% to account for new employees who start late in the year to receive the training in time and exiting employees who leave before taking the training.

(2) Workforce in this context excludes those who exit from the company without completing their assigned training programs.

### Sustainable Procurement

Suppliers signing up to Code of Conduct	100%	2020 status: 98%
Use of plastic pallets made of recycled materials	100%	2020 status: 97%
Use of reusable pallets at all sites	90%	2020 status: 76%
Paper bags from recycled paper	95%	2020 status: 0%
Use of reusable FIBCs or recycled FIBC	100%	2020 status: 0%
CO <sub>2</sub> emissions reduction from freight	30%	

All targets set for delivery by 2029

## 2. ESG FACT SHEET

ENVIRONMENTAL PERFORMANCE	2020	2019	2018
<b>Greenhouse Gas (GHG) Emissions</b>			
Scope 1 (mn MT)	1.9	2.3	2.5
Scope 2 (k MT)	170	182	180
<b>SO<sub>2</sub></b>			
Emissions (K MT SO <sub>2</sub> )	12.6	16.9	18.6
<b>NO<sub>x</sub></b>			
Emissions (K MT SO <sub>2</sub> )	4.0	5.2	5.3
<b>Particulate Matter</b>			
Emissions (K MT PM)	0.5	0.6	0.6
<b>Energy</b>			
Energy Consumption (TWh)	18.1	21.3	22.8
<b>Water Inflow</b>			
Inflow (million m <sup>3</sup> )	11.3	11.4	11.2
<b>Water Outflow</b>			
Outflow (million m <sup>3</sup> )	3.4	4.1	3.8
<b>Waste Generation</b>			
Total Waste Generation (k MT)	12.6	15.9	16.2
Gen. & Non-hazardous Waste (k MT)	11.3	13.5	12.7
Hazardous Waste (k MT)	1.3	2.4	3.5
<b>Waste Disposal Method</b>			
Landfilled (k MT)	8.6	9.2	11.4
Recycled, reused & recovered (k MT)	4.0	6.2	4.1
Incinerated (k MT)	0.0	0.5	0.8
<b>Significant Spills</b>			
Number of Incidents	0	0	0

COMPLIANCE	2020	2019	2018
<b>Environmental Non-compliance Incidents*</b>			
Number of incidents	0	2	1
<b>Code of Conduct Training</b>			
Employees receiving Code of Conduct training	87%	79%	88%
<b>Operational Safety</b>			
DAFW Case Rate	0.12	0.24	0.12
Total Recordable Incident Case Rate	0.19	0.48	0.30
Process Safety Event*	11	-	-
Employee Fatalities	0	0	0
Contractor Fatalities	0	1	0

LIVING OUR VALUES	2020	2019	2018
<b>Employees by Gender</b>			
Total employees	1448	1456	1437
Male employees (%)	1186 (82%)	1201 (82%)	1192 (83%)
Female employees (%)	262 (18%)	255 (18%)	245 (17%)
Females in management roles (%)	15%	14%	12%
<b>Employees by Contract</b>			
Permanent	1423	1419	1409
Temporary	25	37	28
Full time	1401	1432	1399
Part time	47	24	38
<b>Employees by Region</b>			
Americas	360	375	349
APAC	316	330	328
EMEA	772	751	760
<b>Employees by Age Group*</b>			
<30 years of age	127	118	127
30-50 years of age	719	773	779
>50 years of age	602	565	531



LIVING OUR VALUES	2020	2019	2018
<b>Employees in Bargaining Unit</b>			
Number of employees	715	713	719
As a percentage of total	49%	49%	50%
<b>Voluntary Turnover Rate</b>			
Voluntary Turnover Rate	4%	4%	4%
<b>Employees Receiving Performance Review</b>			
As a percentage of eligible employees	57%	57%	55%
<b>Workforce Receiving Training</b>			
As a percentage of total	96%	95%	93%
<b>Average Training Hours</b>			
Average Training Hours	18	16	13
<b>Non-discrimination</b>			
Claims alleged	1	1	3
— Substantiated	0	1	1
— Unsubstantiated	1	0	2
Claims Closed	1	1	3

### 3. GRI INDEX

#### General Disclosures

GRI REFERENCE/DISCLOSURE	PAGE	ADDITIONAL STATEMENTS/REFERENCES
102-1 Name of the organization	2	Orion Engineered Carbons S.A.
102-2 Activities, brands, products, and services	8-9	See 2020 Annual Report, pp. 4-5
102-3 Location of headquarters	8	Luxembourg
102-4 Location of operations	47	See Attachment 5
102-5 Ownership and legal form		Orion Engineered Carbons S.A. is incorporated in Luxembourg and is a publicly traded corporation (NYSE: OEC)
102-6 Markets served	2	See Form 10-K filed on February 18, 2021 (Part I, Item 1. Business)
102-7 Scale of the organization	2-3	Number of employees: 1,448 Operating sites: 14 Sales revenue: \$1.1 billion Sales volume: 0.9 million MT See 2020 Form 10-K filed on February 18, 2021 (Orion's Form 10-K) for other information
102-8 Information on employees and other workers	36	Permanent: 1,423 Temporary: 25 Full time: 1,401 Part time: 47
102-9 Supply chain	32-33	
102-10 Significant changes to the organization and its supply chain		There were no significant changes to report under this heading.
102-11 Precautionary principle or approach	8-9	
102-12 External initiatives		Orion participates in the Carbon Disclosure Project.
102-13 Memberships of association	9	
102-14 Statement of senior decision-maker	6-7	
102-15 Key impacts, risks, and opportunities	6-7	See Orion's Form 10-K (Part 1, Item 1A) for a description of business risks
102-16 Values, principles, standards, and norms of behavior	12	

GRI REFERENCE/DISCLOSURE	PAGE	ADDITIONAL STATEMENTS/REFERENCES
102-18 Governance structure	11	
102-20 Executive-level responsibility for economic, environmental, and social topics	11	
102-40 List of stakeholder groups	12	
102-41 Collective bargaining agreements	28	
102-42 Identifying and selecting stakeholders	12	
102-43 Approach to stakeholder engagement	12	
102-44 Key topics and concerns raised		We are informed about our stakeholders' key topics and concerns through various engagements. For instance, they have led to identification of decarbonization and circularity as key strategic themes.
102-45 Entities included in the consolidated financial statements		See Orion's Form 10-K (Exhibit 21.1) for a list of Orion's subsidiaries.
102-46 Defining report content and topic boundaries	4	
102-47 List of material topics	4	<ul style="list-style-type: none"> <li>• Emissions – GHG, SO<sub>2</sub>, NO<sub>x</sub>, and Particulate Matters</li> <li>• Water</li> <li>• Waste and Spills</li> <li>• Energy</li> <li>• Product Stewardship</li> <li>• Operational Compliance</li> <li>• Business Compliance and Code of Conduct</li> <li>• Operational Safety</li> <li>• People (talent management, development, and retention)</li> <li>• Diversity, equity and Inclusion</li> <li>• Employee Representation</li> <li>• Local Community Engagement</li> <li>• Suppliers' Sustainability</li> </ul>
102-48 Restatements of information		Certain data relating to GHG scope 1, water, waste, and the breakdown of employees by age group have been corrected in this report. Restatements are noted with the relevant indicators.
102-49 Changes in reporting	4	Significant spills, product stewardship, and local community engagement have been added to the material topics list.
102-50 Reporting period	4	January to December 2020

GRI REFERENCE/DISCLOSURE	PAGE	ADDITIONAL STATEMENTS/REFERENCES
102-51 Date of most recent report		Our prior year report was issued in November 2020.
102-52 Reporting cycle	Annual	
102-53 Contact point for questions regarding the report		<a href="mailto:Investor-Relations@orioncarbons.com">Investor-Relations@orioncarbons.com</a>
102-54 Claims of reporting in accordance with the GRI Standard		GRI Standards: Core option
102-55 GRI content index		This document
102-56 External assurance		Orion's financial statements found in Form 10-K filed in March 2020 have been audited by an independent, registered public accounting firm.

## Material Topics — Management Approach

GRI REFERENCE/DISCLOSURE	PAGE	ADDITIONAL STATEMENTS/REFERENCES
103-1 Explanation of the material topic and its boundary		An explanation is provided for each topic on why it is material, how it is being managed, and what the performance measures are for monitoring the effectiveness of the management topic.
103-2 The management approach and its components		Relevant discussions can be found in the sections covering the material topics.
103-3 Evaluation of the management approach		Relevant discussions can be found in the sections covering the material topics.

## Economic Performance

GRI REFERENCE/DISCLOSURE	PAGE	ADDITIONAL STATEMENTS/REFERENCES
201-1 Direct economic value generated and distributed		<ul style="list-style-type: none"> <li>• Sales: \$1.1 billion</li> <li>• Adjusted EBITDA: \$200 million</li> <li>• Adjusted earnings per share: \$1.04</li> </ul> For other details, see 2020 Form 10-K Filing.
201-2 Financial implications and other risks and opportunities due to climate change		See 2020 Form 10-K Filing (Item 1A. Risk Factors)



GRI REFERENCE/DISCLOSURE		PAGE	ADDITIONAL STATEMENTS/REFERENCES
<b>Emissions</b>			
305-1	Direct (Scope 1) GHG emissions	15	
305-2	Energy indirect (Scope 2) GHG emissions	15	
305-4	GHG emissions intensity	15	GHG emissions intensity data are provided for Scope 1, Scope 2 and normalized Scope 1. Normalized Scope 1 intensity is for carbon black produced from furnace technology.
305-5	Reduction of GHG emissions	15	Our GHG emissions reduction target has been set on a normalized basis to remove the effects of grade mix and feedstock mix.
305-7	NOx, SOx, and other significant air emissions	15	SO <sub>2</sub> , NOx, and PM data have been determined according to the environmental rules applicable to each of our production sites.
<b>Energy</b>			
302-1	Energy consumption within the organization	16	
302-3	Energy intensity	16	Energy intensity: total energy consumed (TWhs) divided by total useful energy produced (TWhs). Useful energy produced includes carbon black and exported energy.
<b>Water</b>			
303-3	Water withdrawal	17	
303-4	Water discharge	17	
<b>Waste and Spills</b>			
306-2	Waste by type and disposal method	18	
306-3	Significant spills	18	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.
<b>Product Stewardship</b>			
416-1	Assessment of the health and safety impacts of product and service categories	19	

## Compliance

GRI REFERENCE/DISCLOSURE	PAGE	ADDITIONAL STATEMENTS/REFERENCES
<b>Operational Compliance</b>		
307-1 Non-compliance with environmental laws and regulations	21	
<b>Business Compliance &amp; Code of Conduct</b>		
205-2 Communication and training about anti-corruption policies and procedures	21-22	Anti-corruption and anti-bribery are key compliance topics in our Code of Conduct and applies to all Orion employees. In addition, our suppliers are expected to comply with our Code of Conduct or to their equivalent policies.
<b>Operational Safety</b>		
403-1 Occupational health and safety management system	23-24	
403-2 Hazard identification, risk assessment, and incident investigation	23-24	

## Living Our Values

GRI REFERENCE/DISCLOSURE	PAGE	ADDITIONAL STATEMENTS/REFERENCES
<b>Diversity &amp; Inclusion</b>		
405-1 Diversity of governance body and employees	28	Diversity of the Orion Board of Directors <ul style="list-style-type: none"> <li>• Gender               <ul style="list-style-type: none"> <li>o Female: 22%</li> <li>o Male: 88%</li> </ul> </li> <li>• Age               <ul style="list-style-type: none"> <li>o &gt;50 years old: 100%</li> </ul> </li> <li>• Nationality               <ul style="list-style-type: none"> <li>o France: 11%</li> <li>o Germany: 11%</li> <li>o Luxemburg: 11%</li> <li>o US: 67%</li> </ul> </li> </ul>
406-1 Incidents of discrimination and corrective actions taken	29	

## Living Our Values

GRI REFERENCE/DISCLOSURE	PAGE	ADDITIONAL STATEMENTS/REFERENCES
<b>Talent Management &amp; Development</b>		
401-1 New employee hires and employee turnover		Overall turnover in 2020: 4%
401-2 Benefits provided to full-time employees	26	
404-2 Programs for upgrading employee skills and transition assistance programs	26-27	
404-3 Percentage of employees receiving regular performance and career development reviews	29	
413-1 Operations with local community engagement, impact assessments, and development programs	30	

## Sustainable Procurement

GRI REFERENCE/DISCLOSURE	PAGE	ADDITIONAL STATEMENTS/REFERENCES
414-1 New suppliers that were screened using social criteria	32-33	We require our suppliers to agree to comply with our Code of Conduct or to its equivalent. 98% of our suppliers have signed up. A risk-based approach is used in defining the scope of vetting process.



#### 4. OEC GLOBAL ENVIRONMENT, HEALTH, SAFETY AND QUALITY MANAGEMENT SYSTEM

Protection of humans and the environment, fair treatment of our partners and a clear alignment to the needs of customers are the essential components of our activities. Therefore, we not only comply with all applicable laws, but strive to continuously improve our performance and management systems. Our goal is to have world-class EHSQ programs and performance and continuously strive for improvement in all our operations.

The Orion Engineered Carbons Global Integrated Management System is grounded in the principles of the ISO 9001 Quality Management System, ISO 14001 Environmental Management Systems, OSHAS 18001 Safety Management System, ANSI Z-10 and OSHA VPP principles.

Orion's integrated Global Management System:

- Establishes and outlines the management systems designed to eliminate or minimize risks to personnel, communities, the environment, and other interested parties who could be affected by Orion's activities;
- Implements and requires maintenance and continual improvement of our Environmental, Health, Safety, and Quality management system;
- Provides guidance to assist Orion employees, and particularly new Orion Leaders and EHSQ professionals in understanding the key components of our safety systems; and,
- Provides a consistent framework for facilitating certification of Orion's Global Management System, as evidenced by our Global Certifications.

The integrated Global Management System describes the OEC processes and procedures practiced in relation to environmental protection, occupational and process safety, health protection, and quality management including sustainable compliance, social accountability, and product stewardship.

#### Significant Environmental and Safety Aspects and Goals

We have identified our significant environmental, health, and safety aspects on a business-wide basis and have established qualitative objectives and quantitative targets for each.

These aspects include the following:

- Reduction of injuries and illnesses;
- Reduction of air emissions;
- Reduction of chemical spills and releases; and,
- Reduction of fires and process safety incidents.



## Sustainability

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Protecting human health and preserving the environment is paramount to sound corporate governance, preservation of the value of our business and the satisfaction of our social responsibility and our duty to future generations. Accordingly, Orion is committed to conducting its operations safely and in compliance with all applicable environmental, health, and safety requirements, and minimizing the environmental impact of our global operations. Our global EHSQ Policy is central to the company's corporate governance and assures that all leaders and employees share Orion's commitment to ethical business practices. This policy guides us on how to put this commitment to work and sets the expectation that all employees adhere to the ethical standards and laws in all regions where we operate. Our EHSQ Policy, together with our Code of Conduct, and Prevention of Corruption Guidance, demonstrates our firm commitment to a sustainable business for our customers, shareowners, employees, neighbors, and business partners.

## Environmental, Health and Safety Management

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Our Global Management System (GMS) Standards and checklists are the foundation for our management system tool and assessment process designed to assure that all our facilities have a strong safety culture, clear procedures and participation by the workforce. There are five strategic focus areas: 1 – Review and Mitigate Top Risks; 2- Global Management System Standards; 3- Sustainability and Continuous Improvement; 4- IT Systems to Support Global EHSQ Infrastructure; 5- Global Product Stewardship. Each of these focus areas are subdivided in several program requirements, e.g., EHSQ Policy, Expectations and Appraisal, Hazard Analysis, Employee Engagement, Incident Management, Training, Inspections, Personal Protective Equipment, Contractor Management, Emergency Preparedness, Job Safety Analysis, Management of Change, Safe Work Permit, Risk Assessment Risk Management; Lock-Out/Tag-Out, etc. The implementation status of each focus area is measured periodically by a self-assessments and business level audits which is reported to business management.

## Process Safety Management (PSM)

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Our manufacturing sites are designed and operated to minimize potential adverse environmental, health and safety impacts. We regularly analyze hazards to identify, manage and minimize potential risks, and routinely inspect and perform timely repairs on critical equipment. The Orion PSM covered systems include:

- a) CBO Supply Systems – piping, pumps, tanks, containment
- b) Reactors – refractory, shells
- c) Air preheaters, oil preheaters, waste heat boilers – bundles, shells
- d) Smoke headers – piping
- e) Bag filters – including Primary bag filter, conveying filters, dryer

- exhaust filters – including filter housings and filter bags
- f) Tail gas headers – piping, blowers, auxiliary equipment
- g) Dryers – combustors, drums
- h) Carbon black after treatment unit e.g. deSOx and deNOx
- i) Cogeneration

The PSM protocols are consistently used globally and address: process hazard analyses, operating procedures, training, mechanical integrity, management of change, pre-startup safety reviews, contractors, hot work, risk assessments and audits, among other elements of the system. We have developed this into a globally applied Process Safety Management system that also meets the SEVESO II requirements in Europe. Additionally, we implemented several management review processes to ensure continual improvement in the PSM area.

## Monitoring and Measurement of EHS Performance

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Our manufacturing sites are required to undertake an annual self-assessment of their compliance with applicable legal and company EHS requirements. Exceptions are noted, and corrective actions are tracked to closure. These self-assessments are backed up by corporate audits (see Compliance Assurance below).

As part of the overall management system, EHS performance is measured, tracked and goals are set to promote continual improvement. Progress on meeting our EHS objectives and targets are monitored through a performance tracking system where over 25 EHS metrics are reported to the business by each manufacturing facility monthly. This allows priorities to be established in line with our EHS performance objectives.

EHS performance goals and data are shared between regions and with Orion corporate management to facilitate EHS performance improvement.

## Regulatory Responsibilities

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Systems are implemented to proactively monitor and assess new and amended EHS regulations to ensure continued compliance is maintained. Each manufacturing site has an EHS Manager and, depending on the size and complexity of the site, additional EHS professional staff is available. Also, each area has a Regional EHS Manager, which is supplemented by the Global EHS organization. The site EHS staff relies on a variety of tools to identify and assure that it complies with applicable regulatory requirements. These include access to EHS regulatory websites, industry associations, internal Subject Matter Experts (SME), annual regulatory compliance self-assessments as required by applicable GMS standard, periodic compliance assessment conducted by the Regional EHS Manager, the Global EHS organization, and frequent interaction and reviews between the site EHS team and the Global EHS organization.

## Compliance Assurance

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To augment site self-assessments, and the periodic EHSQ Audits conducted by the Global EHS and Quality organization, we are supplemented by the third-party certification auditors who periodically conduct audits to assess adherence to legal and company EHSQ requirements. The results of these assessments are reported to the Orion executive leadership.

The results of compliance assessments and audits are documented and corrective actions are tracked to timely closure. Global EHS compliance audits are typically focused on environmental, occupational and process safety systems. The frequency of these audits range from one to three years, based on the size and complexity of the operation, and the corresponding level of EHS risk. The audit protocols are periodically reviewed by Orion and outside EHS experts and updated as necessary to incorporate changes.

All findings from both self-assessments and global / regional / third party level audits are classified as either compliance or noncompliance findings and are entered into an electronic audit tracking system database. To the extent any compliance issues are identified, OEC has established a rigorous audit closure tracking process that involves assignment of individual accountability, a fixed period for closure and continually tracking of the status until the audit finding has been closed.

All of manufacturing sites that are certified to ISO 9001 and ISO 14001<sup>20</sup> standards also conduct an internal audit of their ISO 9001 and 14001 Environmental Management Systems and undergo third party certification audit.

## Incident Investigation and Corrective Action

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All incidents within Orion are considered important events and treated as such to determine the causes and prevent recurrence. Therefore, all incidents are reported, evaluated to determine the appropriate classification according to the severity, and investigated to determine the causes; incident learning(s) are summarized and communicated with the appropriate work group; and the corrective actions are tracked to closure.

Orion has implemented Gensuite — an electronic database to facilitate incident management system. 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.

## Security Programs

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Orion has implemented security systems designed to identify security risks to our business, 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 and incident reporting, and emergency response planning.

## Supplier Qualification

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Orion has implemented a global program to assure that all raw material suppliers are meeting our Corporate Code of Conduct and EHS Guidelines, or their equivalents.

## Management Review

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Top management (e.g., CEO, business leaders, innovation, global EHS leader, and quality leaders) review and evaluate EHSQ performance periodically. The intent is to ensure the management systems are suitable and effective in allowing our organization to execute its targets, goals, and objectives. Management reviews facilitate continual improvement of overall EHSQ performance. Formal regional reviews are also conducted during which the plant manager for each manufacturing site presents the status of the site's EHSQ systems to regional management.

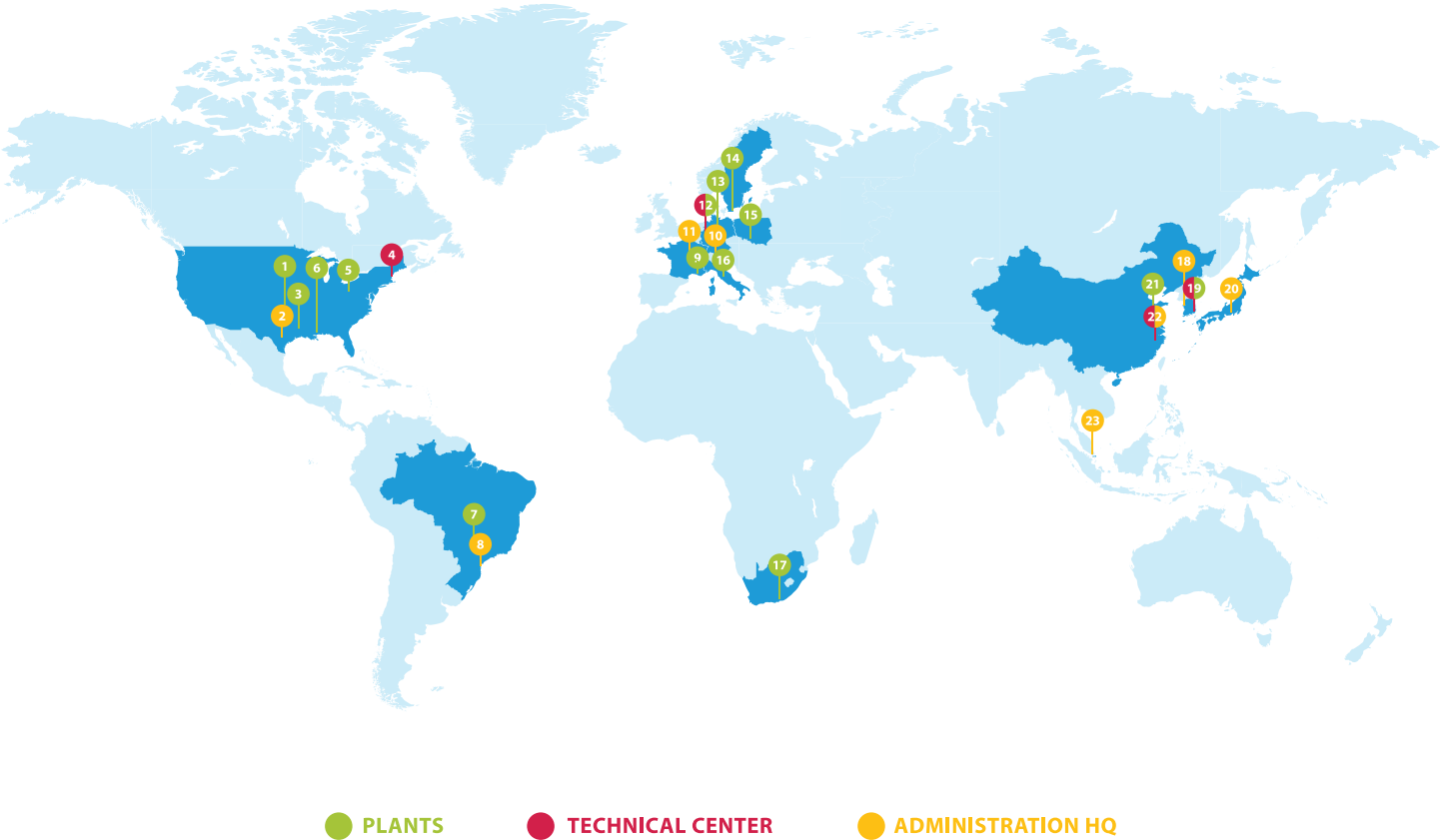
The following are typically reviewed during these sessions:

- Global progress/performance in meeting the business EHSQ goals and site-specific objectives and targets;
- Key accomplishments achieved in the last 12 months;
- Critical EHSQ actions, programs, and projects planned for the next 12 months;
- Compliance status and potential concerns;
- Emergency response preparedness;
- External audits, awards, and certifications; and,
- Leadership and opportunity for improvement.

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<sup>20</sup> Our site in France is undergoing ISO 14001 certification process.

5. OUR LOCATIONS



The Americas

- 1. **Borger**, TX, USA
- 2. **Houston**, TX, USA  
(Principal Executive Office + Regional HQ)
- 3. **Orange**, TX, USA
- 4. **Carlstadt**, NJ, USA
- 5. **Belpre**, OH, USA
- 6. **Ivanhoe (New Iberia)**, LA, USA
- 7. **Paulínia**, Brazil
- 8. **São Paulo**, Brazil

Europe/Middle East/Africa

- 9. **Berre-l'Étang**, France
- 10. **Frankfurt**, Germany (Regional HQ)
- 11. **Luxembourg**
- 12. **Cologne**, Germany
- 13. **Dortmund**, Germany
- 14. **Malmoe**, Sweden
- 15. **Jaslo**, Poland
- 16. **Ravenna**, Italy
- 17. **Port Elizabeth**, South Africa

Asia Pacific

- 18. **Seoul**, South Korea
- 19. **Yeosu**, South Korea
- 20. **Tokyo**, Japan
- 21. **Qingdao**, China
- 22. **Shanghai**, China (Regional HQ)
- 23. **Singapore**, Singapore