



CABOT CORPORATION

# 2018 SUSTAINABILITY REPORT

**CABOT** 





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## A MESSAGE FROM OUR CEO

### SEAN D. KEOHANE

President and Chief Executive Officer

Our annual sustainability report is an opportunity to not only reflect on our accomplishments from the past year, but to anticipate how we can continue improving our performance moving forward. We are proud of our progress in 2018 and remain excited about the opportunities ahead of us. While we have been in business for over 135 years, it is clear that our responsibility to conduct our operations with the highest social and environmental standards has never been greater. Our customers demand it, our communities expect it, and our planet needs it.

As one of the largest performance materials and specialty chemicals companies in the world, we understand the role that we play in leading and setting an example in our industry. We know we must live up to our responsibilities, honor our commitments and be accountable to our stakeholders. Advancing progress in sustainability is one essential way we will continue to demonstrate and maintain our leadership.

We have learned over the years that our commitment to sustainability is not just about acting responsibly, but it is also about identifying and acting on opportunities. Increasingly, the challenges our customers are facing are sustainability challenges. Our ability to develop innovative technologies to meet these challenges, conserve resources across our value chain and grow our position in the circular economy is enabling us to maintain our reputation and prepare our business for the future.

In 2018, we demonstrated our commitment to sustainability in a number of ways. Recognizing the strategic importance of sustainability to our future

success, we broadened the focus of our Board of Directors' Safety, Health and Environment Committee to now include oversight and guidance for our sustainability program. We also formed an internal Sustainability Advisory Committee composed of leaders representing a cross-section of our regions, functions and businesses to support the strategic integration of sustainability throughout our company and accelerate our progress in this important area.

In addition, we became the first chemical company in China to earn Responsible Care 14001® certification by an authorized registrar in China and have since reached our goal of having all our manufacturing facilities in China earn this certification. We were also recognized as one of *Corporate Responsibility Magazine's* 100 Best Corporate Citizens and earned numerous regional recognitions in our markets around the world. In addition, we have made progress on all our material topics, including two new focus areas of supplier sustainability and diversity and inclusion (D&I). Specifically, I'm proud to report that we recently achieved our goal to reduce nitrogen oxides (NO<sub>x</sub>) emissions on an intensity basis by 20% from a baseline of 2012 ahead of schedule. In addition, we implemented a pilot program to audit suppliers on sustainability criteria, and further embedded D&I into our culture by launching a D&I Committee and hiring our first director of D&I.

As we push forward, our sustainability strategy focuses on the most significant sustainability issues and opportunities facing our company. Specifically, we look to our 11 material topics to help focus our attention on what matters most to our business and stakeholders. We are committed to operating responsibly, conserving resources

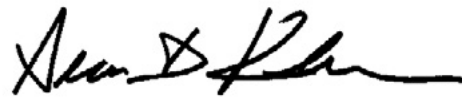
and developing innovative performance materials, through our relentless pursuit of developing solutions that address the sustainability challenges of our customers, our communities and our world. We do this by:

- ◆ Caring for our people and communities: We lead our industry in safety performance. We provide opportunities for our employees to develop and advance, and we foster a diverse and inclusive workplace where everyone is valued. We support our communities through our active engagement and commitment to being a responsible neighbor.
- ◆ Acting responsibly for the planet: We are setting the standard for environmental compliance, innovating to reduce our environmental footprint and optimizing our operations and supply chain to increase circularity and conserve resources.
- ◆ Building a better future together: We are collaborating with our customers to create products that address sustainability challenges, working with suppliers to improve sustainability across our value chain, and creating long-term economic value for our partners and for businesses.

We have a unique opportunity to generate meaningful and lasting impacts in these areas but recognize that we cannot do this alone. We remain a proud signatory to the United Nations Global Compact and will continue to have an external focus through which we will collaborate with others so we may continue making positive contributions for a more sustainable world.

We are energized about the road ahead and are committed to achieving continuous improvement in sustainability. This report is intended to provide insight to our many stakeholders about our sustainability initiatives. If you have suggestions regarding how we can further our efforts in this vital area, please email us at [sustainability@cabotcorp.com](mailto:sustainability@cabotcorp.com). We welcome your feedback.

Regards,



GRI 102-14

"As one of the largest performance materials and specialty chemicals companies in the world, we understand the role that we play in leading and setting an example in our industry."



# ABOUT THIS REPORT

This report has been prepared in accordance with the GRI Standards: Core Option. It serves as our annual Sustainability Report and addresses the sustainability topics determined to be most material to our company. Additionally, this report includes our annual Communication on Progress in support of our commitment to the United Nations Global Compact (UNGC). Our last sustainability report was published in June 2018.

Data and information covered in this report represent our performance across all significant locations for which our company had operational control and majority ownership during the 2018 calendar year, except for the financial data, which covers our 2018 fiscal year (October 1, 2017, through September 30, 2018). To ensure the highest level of data integrity, we maintain databases for safety and environmental incident tracking, greenhouse gas emissions, finance and human resources. This data

is collected, analyzed and reviewed by subject matter experts within the organization and, in the case of our greenhouse gas emissions, undergoes biennial verification by an independent third party, which was conducted most recently for our 2017 and 2018 data in May 2019.

This report describes our sustainability strategy and how it relates to our business and the interests of our stakeholders. The content focuses on the 11 sustainability topics that were found to be most relevant through a comprehensive materiality assessment completed in 2017. Dedicated sections describe our performance and vision for improvement in each of these 11 areas. Throughout the report, markers are provided to indicate the correlation between material topics and the GRI Standards.

GRI 102-46 | GRI 102-47 | GRI 102-49 | GRI 102-50 | GRI 102-51

GRI 102-52 | GRI 102-54 | GRI 102-56

## HIGHLY MATERIAL TOPICS

## UN SUSTAINABLE DEVELOPMENT GOALS

ECONOMIC VALUE GENERATED & DISTRIBUTED						
PRODUCT SUSTAINABILITY						
SUPPLIERS' SUSTAINABILITY						
ENVIRONMENTAL COMPLIANCE						
ENERGY						
EMISSIONS						
WASTE & SPILLS						
WATER						
OCCUPATIONAL HEALTH & SAFETY						
RETENTION, DIVERSITY & DEVELOPMENT						
COMMUNITY ENGAGEMENT						

# OUR COMMUNICATION ON PROGRESS

Since 2015, we have been a proud signatory of the UNGC and remain committed to making progress with respect to the 10 principles within the categories of environment, labor, human rights and anti-corruption.



## ENVIRONMENT

With recognition of the numerous environmental issues facing our planet, we are dedicated to understanding and managing our environmental impacts on the world. We fully accept our responsibility to reduce our environmental footprint to the greatest extent possible across our global operations. To this end, we have developed initiatives to minimize the environmental impact of our business, conserve resources and promote environmental awareness. This commitment is underscored by the fact that the majority of the topics identified as most material to our sustainability program are environmentally related. Globally, our efforts are focused on reducing energy usage, emissions and waste. We have developed environmental goals in these areas and continuously monitor our progress toward these 2025 targets in addition to other environmental metrics. We also recognize that water is an important natural resource that we must monitor our use of, and we are working across our network of facilities to develop a strategic water management plan to help identify water reduction, recycling and efficiency opportunities.

## LABOR

We strive to ensure our organization reflects the diversity of our global presence and are committed to providing equal opportunity for all employees at all levels. As one of our core values, we respect the differences of all our employees and have zero tolerance for discrimination on the basis of ethnic or racial status, color, nationality, descent, religion, caste, gender, age, physical

characteristics or appearance, sexual orientation, union membership or political affiliation. We are fully compliant with all requirements stemming from labor legislation and collective agreements in the countries in which we operate. In addition, safety is paramount to our operations, and we work diligently to ensure the safety of our employees, contractors, visitors and communities where we operate. We maintain our sharp focus on safety by ensuring all employees, contractors and visitors are well trained and equipped with everything they need to return home each day the same as they arrived at our facilities. We also recognize the benefit of promoting wellness across our workforce and offer numerous opportunities to promote employees' wellness inside and outside of work while creating a healthier, more engaged culture.

## HUMAN RIGHTS

We are committed to conducting our business with integrity and believe that it is our responsibility to respect human rights with regard to our employees, suppliers, customers and communities. We firmly believe that every individual deserves to be treated with dignity, honesty, integrity, respect and fairness. In seeking to respect and uphold human rights, we are guided by international standards embodied in the United Nations Universal Declaration of Human Rights; the International Covenant on Civil and Political Rights; the International Covenant on Economic, Social and Cultural Rights; and the International Labor Organization's Declaration on Fundamental Principles and Rights at Work. This commitment is explicitly covered in our Code of Business Ethics in addition to our formal Human Rights Policy. We also require that our suppliers comply with our Code of Business Ethics, which in some cases demands higher standards than required by local law. Pursuant to the California Transparency in Supply Chains Act, we have posted on our website a statement that suppliers are expected to comply with all applicable laws and standards related to labor practices and human rights.





## ANTI-CORRUPTION

Conducting business in accordance with the highest ethical standards and in full compliance with all applicable anti-bribery laws and regulations is critical to our business success. This requires the support of all employees as well as our suppliers and customers, and we expect that they will comply with these laws and regulations at all times. Our position is that all forms of corruption, including bribery and extortion, are unethical and unacceptable and are inconsistent with our values and our Code of Business Ethics. In support of this position, we have developed detailed policies, compliance procedures and training.

All employees are required to undergo training on the Code of Business Ethics on an annual basis, through which they can practice identifying potential risks of corruption and how such matters should be addressed. Depending on employees' job responsibilities, supplementary training may also be required to uphold our high expectations for ethical business conduct. In addition, to facilitate the reporting of potential or suspected misconduct or noncompliance, including bribery-related activities, we provide a reporting hotline through which our employees can confidentially report concerns.

GRI 102-12



## ABOUT CABOT

Cabot Corporation is a leading global specialty chemicals and performance materials company headquartered in Boston, Massachusetts, USA, that has delivered innovative performance solutions to customers for over 135 years. We are a leading provider of rubber and specialty carbons, fumed metal oxides, masterbatches and conductive compounds, activated carbon, inkjet colorants and inks, cesium formate drilling fluids, and aerogel.

We strive to be the most innovative, respected and responsible leader in our markets – delivering performance that makes a difference. As a market leader, we collaborate with customers to find innovative solutions that will help them advance their own products for a wide range of industries, from transportation and infrastructure to environment and consumer goods. We know that the properties our products impart give us the opportunity to help our customers address key sustainability challenges. We look to advance in these areas with a continued focus on improving the performance of both our materials and the end products in which they are used.

We are known as one of the global leaders in safety, health and environmental (SH&E) performance, and we continuously invest in sustainability, motivated in large part by the commitment and drive of our colleagues around the world. Our global network consists of approximately 4,500 employees in 45 manufacturing facilities, nine research and development facilities,

and 30 sales offices in over 20 countries from our regions: the Americas, Asia Pacific (APAC), and Europe, Middle East and Africa (EMEA).

In 2018, we celebrated 30 years of success and development in China and were proud to become the first chemical company there to receive Responsible Care® 14001 (RC14001®) certification that is recognized by the Certification and Accreditation Administration of the People's Republic of China as well as the American Chemistry Council (ACC). All four of our manufacturing facilities in China earned this certification, and we plan to achieve the same status for facilities that will become operational in the near future. This was an important milestone in our commitment to demonstrate leadership in our markets. We announced plans to expand our global carbon black capacity by over 300,000 metric tons through a series of expansion and debottlenecking projects, including a capacity expansion project at our facility in Cilegon, Indonesia. We also continued the integration of Tech Blend, a leading North American producer of black masterbatches, and a carbon black manufacturing facility in Pizhou, China. These projects will contribute to our continued growth and are essential to meet the growing demand in key markets around the world.

GRI 102-2 | GRI 102-4 | GRI 102-6 | GRI 102-7 | GRI 102-10

GRI 102-12 | GRI 103-1



## OUR LOCATIONS



## VALUES AND ETHICS

We are committed to promoting an ethical business culture that is rooted in our core values of integrity, respect, excellence and responsibility. These values ensure that we are operating ethically and transparently, and are fundamental to our relationships with our customers, partners, distributors, shareholders and colleagues around the globe. Our Code of Business Ethics establishes the standards of ethical behavior and business conduct that we expect throughout our organization. Each year, all employees are required to complete training on our Code of Business Ethics in addition to more focused training based on job responsibilities. We provide the training in

13 different languages for our global network of employees. The Code covers topics such as the importance of treating each other with mutual respect, interacting with our customers and other stakeholders with a high standard of ethics and serving our communities in a responsible manner. The Office of Compliance, which reports to the Audit Committee of the Board of Directors, oversees the implementation of the Code and overall compliance with laws and regulations.

GRI 102-16

# ENGAGING WITH OUR STAKEHOLDERS

Being a responsible corporate citizen requires maintaining positive relationships with our various stakeholder groups. We diligently seek opportunities to engage with our customers, investors, employees, potential employees, suppliers, regulators and communities and welcome their feedback on how our activities impact their respective interests. Our interaction with these groups can take many forms, including employee meetings, recruiting events, in-person meetings, and the use of social media to highlight key community initiatives and company news. We believe it is important for our stakeholders to understand not just the nature of our business but also our ongoing commitment to improving our sustainability performance and investing in research and innovation.

Our open-door policy provides the framework for employees to raise concerns and report violations of corporate policies or the law. Employees may utilize several points of contact such as supervisors, the Office of Compliance or the Cabot hotline. Manufacturing facilities have formal processes to engage the local community, including the use of Community Advisory Panels and open days where community members may visit sites and speak directly with our employees.

GRI 102-40 | GRI 102-42 | GRI 102-43 | GRI 102-44

STAKEHOLDERS	TYPES OF ENGAGEMENT	KEY TOPICS
<b>Employees</b>	Meetings, executive briefings, training sessions, surveys, regular intranet communication	Business performance, value of our work, strategic initiatives and vision, policy and organizational structure, benefits and compensation, safety
<b>Potential Employees</b>	Social media, college campus visits, interviews, internships, job recruitment sites, employee referrals	Sustainability performance, company values, community engagement, benefits and compensation
<b>Communities</b>	Plant visits, open days, sponsorships, engagement programs, foundation activities, social media	Plant operations, safety, environmental stewardship, emergency response planning, compliance programs, emissions, sponsorships, local engagement
<b>Customers</b>	Sales calls, surveys, technical information, exchanges, plant visits, complaint resolution, trade shows, trade magazines, social media, customer portals, website	Business performance, sustainability, satisfaction surveys, technical solutions, product quality and performance, cost, production plans, product safety and regulatory information
<b>Suppliers</b>	Presentations, supplier agreements, audits and performance assessments, supplier summits, trade shows, trade magazines	Performance criteria and expectations, sustainability, safety
<b>Investors</b>	Annual report, quarterly disclosures, sustainability report, annual meeting, individual meetings, social media, website, business and trade news	Business performance, strategy, execution, material disclosures, sustainability
<b>Regulators</b>	Plant visits, training sessions, technical information exchanges, inspections	Compliance reporting, problem solving, technical information, sustainability



## OUR CONTINUED COMMITMENT TO RESPONSIBLE CARE

Since joining the ACC in 2010, we have embraced the chemical industry's voluntary Responsible Care initiative. Through the Responsible Care initiative and the Responsible Care Global Charter, we have made a commitment to improve our health, safety, environmental and security performance throughout the organization. As an active leader in Responsible Care, we are helping to drive continuous improvement in the safety and sustainability of our products and operations around the globe.

The Responsible Care principles are closely aligned with our sustainability strategy, and we are an active supporter of these principles around the world. Our participation signifies our deep belief in the value of external engagement and third-party certification of our safety, health, environmental and security management systems. Through Responsible Care, we continuously demonstrate our commitment to:

- ◆ Improving the safety, health and environmental performance of our processes and products
- ◆ Monitoring the security of our sites and working with our neighbors to prepare for and respond to emergencies
- ◆ Using resources wisely and minimizing waste
- ◆ Promoting responsible management of chemicals
- ◆ Communicating openly with stakeholders

Within this program, we have chosen to implement RC14001, which incorporates the requirements of both the Responsible Care code and International Organization for Standardization (ISO) 14001: Environmental management systems, for our manufacturing facilities and corporate offices in the United States and our carbon black facility in Canada. Each year following certification, several of our manufacturing sites have received ACC awards in the Achievement, Honor and Excellence categories, demonstrating facility-level safety leadership.



We are committed to acting in accordance with the principles of Responsible Care on a global scale and have applied them across our network. Specifically, we continue to be a leader and promoter of Responsible Care in China. As a member of the Association of International Chemical Manufacturers (AICM) that promotes Responsible Care in China, we are actively engaged in leadership positions in the AICM's environment, safety, emergency planning, production and process safety subcommittees.

In March 2018, we celebrated the certification of our Tianjin facility, becoming the first chemical company in China to be certified by auditors from the international registrar, BSI, in accordance with the stringent international standards of the Responsible Care Management System® program. Later in the year, our carbon black facility in Xingtai, China, was officially certified to the RC14001 standard. This was yet another important milestone toward our goal to complete certification of all our facilities in China.

GRI 102-12





# BUILDING A BETTER FUTURE TOGETHER

13 Economic Value Generated & Distributed



15 Product Sustainability



16 Suppliers' Sustainability



We recognize the value and importance of incorporating sustainability not only into our direct operations and research efforts but throughout our value chain. This perspective helps us identify how we can best leverage our influence and create the greatest value to improve efficiency and implement responsible practices. We actively engage with our customers to collaborate on developing products that impart sustainability benefits such as increased durability and energy efficiency. In addition, we support and collaborate with our suppliers to help them in their pursuit of continuous improvement in sustainability performance. Improving the overall impact of our value chain is dependent on our close collaboration with our customers and suppliers. Together, we pursue innovative solutions to improve our collective sustainability performance and address the key sustainability challenges of today's world.



## ECONOMIC VALUE GENERATED & DISTRIBUTED

### OUR COMMITMENT

Strong financial performance is key to the sustainable growth of our business and our future success. Our stakeholders around the world expect us to deliver on our financial commitments by generating and distributing economic value. To that end, we are focused on growing our earnings by 7% to 10% over time while returning 50% of our discretionary free cash flow to shareholders. We believe this approach in combination with investing for growth in our businesses will allow us to maintain our reputation as a leader in our markets and position us to respond to the evolving needs of our customers. Through our global operations, we create value for a wide variety of stakeholders, including our shareholders, investors, employees, suppliers, contractors and local communities. Our compensation programs are designed to provide a competitive package that rewards both individual and Company performance and that reflects job complexity, strategic value of the individual's position, experience and location.

GRI 103-1

### OUR MANAGEMENT APPROACH

With the support of our Executive Committee, the Board of Directors oversees financial performance and strategy, capital structure, and market exposure as well as our company's overall risk profile. Our comprehensive Enterprise Risk Management program is led by our chief financial officer and reviewed by the Executive Committee before it is presented to the Board of Directors. As part of this process, sustainability-related issues — such as impacts from climate change on our business operations and our markets — are evaluated. Opportunities related to how we can respond to markets seeking more sustainable solutions are also a key factor in our strategic planning.

Our Advancing the Core strategy is designed to extend our leadership in performance materials. We do this by investing for growth in our core businesses, driving application innovation with our customers, and generating strong cash flows through efficiency and optimization. The goal of this strategy is to deliver sustained and attractive

total shareholder return, built on earnings growth and a balanced capital allocation framework. This strategy helps ensure that we invest sufficiently in our core businesses to capture opportunities and drive long-term earnings growth while providing our shareholders with a meaningful cash return.

Our investment decisions and growth strategy are guided by an emphasis on sustainable business practices and full compliance with laws, regulations and corporate standards including our Code of Business Ethics. When possible, we also look for opportunities to go beyond the minimum standards.

To ensure the reliability of our financial and strategic planning, we regularly monitor and evaluate both our short- and long-term needs and objectives. Specifically, each quarter we conduct a comprehensive internal review of our financial performance. We also review our financial performance with our Board of Directors on a bimonthly

basis. Annually, we develop and review long-range plans, establish performance targets and review business and function budgets.

Our investors and the broader investment community closely evaluate our financial performance, and an independent registered public accounting firm audits our annual financial statements each year.

GRI 103-2 | GRI 103-3

## OUR PERFORMANCE

We were pleased to report a very strong financial performance in fiscal year 2018. We generated adjusted earnings per share\* of \$4.03, which was a 14% increase compared with fiscal 2017. Furthermore, we achieved cash flow from operating activities of \$298 million and generated \$253 million of discretionary free cash flow (DFCF).\* We continued to deliver on our commitment to return cash to our shareholders, returning more than 50% of DFCF through dividends and share repurchases.

We made several long-term strategic investments to extend our leadership positions and to drive sustained growth of earnings and free cash flow. Our investments for growth in our core businesses included furthering

the integration of Tech Blend, a leading North American producer of black masterbatches, which extends our global footprint in black masterbatch and compounds. We also acquired a carbon black plant in Pizhou, China, and announced our intention to modify the manufacturing facility to produce specialty carbons. Moreover, we announced investments for additional capacity in our global carbon black network through capital-efficient debottlenecks and an expansion at our facility in Cilegon, Indonesia. In addition, we continued to make progress on our new fumed silica manufacturing facilities in Carrollton, Kentucky, USA, and in Wuhai, China. These two facilities will add nearly 100 total jobs in those communities. In 2018, we also recommissioned our aerogel manufacturing facility in Frankfurt, Germany, which increased the number of employees from 14 to more than 50.

Our business success enables us to further our contributions to society and the communities where we operate, by generating jobs, providing fair wages, adopting the latest technology and materials to reduce our environmental impact, and participating in charitable giving and community events.

GRI 102-7 | GRI 201-1 | GRI 201-2

### Celebrating 75 years of operations at our Ville Platte facility

2018 marked the 75th anniversary of our carbon black manufacturing facility in Ville Platte, Louisiana, USA. In honor of this milestone, the site hosted a week's worth of events for our customers, employees, family members and retirees. Throughout the facility's history, we have been proud to expand our production capabilities and employ local residents who have contributed to its long-term success. Today, we utilize four units to manufacture more than 10 different grades of carbon black, amounting to approximately 145,000 metric tons of product sold throughout North America annually.

\* Non-GAAP financial measure. Refer to non-GAAP reconciliations on page 10 of our [2018 Annual Report](#).





# PRODUCT SUSTAINABILITY

## OUR COMMITMENT

Our vision of delivering performance that makes a difference is exemplified by our products that provide health, safety, environmental and other sustainability benefits for our customers. We are committed to continuing to develop innovative products that improve the performance of our customers' products by imparting properties that extend product life spans, increase fuel efficiency and optimize resource conservation. We look to grow our involvement in the circular economy by developing opportunities to use waste or byproducts as raw materials, and we understand that, as responsible manufacturers, we have an obligation to share comprehensive information on the health, safety and environmental aspects of our products.

GRI 103-1

## OUR MANAGEMENT APPROACH

Oversight of product innovation and development is provided by our chief technology officer in close collaboration with our customer-focused business teams. We also regularly partner with customers to support their goals of developing sustainable products and solutions. Our research and development teams use a stage-gate process to assess the risks associated with the materials we use and produce, with regard to the health, safety and environmental impacts from our own operations as well as the activities of our suppliers and customers. Through this lens, we can make informed decisions about the design and formulation of our products.

Our efforts to maintain compliance with global product requirements is led by regulatory experts and toxicologists within our Product Support and Toxicology department. Our corporate hazard communication program ensures an ongoing review of our product properties as well as compliance with global requirements. We are committed to developing transparent product labeling and sharing comprehensive supporting literature to ensure those who manufacture, transport, store or use our products are prepared to handle the material safely. Training is provided for our employees, customers and distributors, to relay the health and safety aspects of our products as well as the intended uses, ensuring that our materials are handled and used properly.

This commitment to product sustainability extends to our engagement with peer companies in our industries. We have long been a participant and leader in the International Carbon Black Association as well as other industry associations around the world. These engagements provide opportunities to further the understanding of

regulatory issues, promote collaboration on expansion of health and safety information, and help ensure the long-term sustainability of our markets.

GRI 103-2 | GRI 103-3 | GRI 416-1

## OUR PERFORMANCE

### Innovation in energy storage

As part of our commitment to advancing the energy industry, we were excited to announce our participation in two United States Department of Energy research projects, for lithium-ion and lead acid battery materials. We will leverage our novel process technology to contribute to the research and development of low-cobalt active cathode formulations for next-generation lithium-ion batteries. Research projects like these are designed to explore more sustainable, affordable options to cobalt, and ultimately to improve access to electric vehicle technology. For the lead acid battery project, we and fellow members of the Advanced Lead Acid Battery Consortium are funding research by Argonne National Laboratory aimed at gaining the critical knowledge needed to create the next generation of lead batteries that will provide economical, recyclable and rechargeable energy storage. In addition to these two projects, we lend our expertise to several other partner-led research projects designed to advance the technologies of tomorrow.

### Applying carbon nanostructure technologies

In 2018, we gained capabilities in carbon nanostructure (CNS) technologies. We are working with customers serving the automotive industry to advance applications of CNS-containing composites for a wide range of conductive applications, including electrostatic discharge and electromagnetic interference shielding. These composites

enable light-weighting and electrification, which help the industry achieve its future vision of more sustainable mobility. This innovative technology will also enable us to develop advanced formulated solutions for energy storage applications, enabling batteries to operate longer with greater capacity.

### Compliance with REACH

We successfully completed registrations under the European Union (EU) REACH chemical regulation in 2018. Since initial requirements began under this rule in 2010, we have been focused on meeting our obligations for the diverse set of products we manufacture in or import into the EU. Our efforts include partnering with our peers through our industry groups and REACH consortia. We are committed to maintaining our focus on compliance with REACH and other global product regulatory obligations.

GRI 416-1

### Fiber-grade carbon black supports wastewater reductions

Our fiber-grade carbon black products help enable a solution for environmental challenges faced by the synthetic fiber industry. Traditional bath-dyeing methods generate large amounts of wastewater and emissions. With the increasing emphasis on environmental protection and sustainable development, the dope-dyeing process has emerged as an alternative and is gradually replacing the bath-dyeing process. When using our specialty carbon blacks in the dope-dyeing process, customers can greatly reduce the volume of wastewater generated and can minimize other environmental impacts while achieving the exceptional color performance our products deliver.



## SUPPLIERS' SUSTAINABILITY

### OUR COMMITMENT

We are committed to conducting business with the highest ethical standards, and we expect the same of our suppliers. At the same time, we see opportunities to generate shared value through sustainability. As we advance on our sustainability journey, we believe partnering with our suppliers will play an important role in our ability to generate significant positive impacts beyond our own operations.

GRI 103-1

### OUR MANAGEMENT APPROACH

Our supply chain predominantly consists of suppliers providing raw materials, chemical additives, process equipment, vehicles, packaging materials, logistics services and temporary contractors. The management of these suppliers is overseen by the procurement function, which is organized in teams aligned with our regions, categories and corporate services. Sourcing decisions are guided by an internal supplier qualification process that considers a broad range of criteria, including issues related to sustainability. We also evaluate our critical suppliers using these principles throughout our engagement with them.

All our suppliers are required to acknowledge our Supplier Code of Conduct, which outlines our minimum expectations while encouraging best practices relevant to their business. We reserve the right to conduct audits to verify compliance with this standard, and in the event of a violation, we respond appropriately either through corrective actions or by terminating the business relationship.

GRI 102-9 | GRI 103-2 | GRI 103-3

## OUR PERFORMANCE

2018 marked an important year for our supplier sustainability program. With an increased focus on sustainability in our supply chain, we have turned our attention to developing a new approach to engage suppliers, which we hope will expand the potential for our sustainability impact. A key first step was to deploy a pilot auditing program as an extension of the existing quality audit practices. The audit criteria included elements that are fundamental to general risks associated with supply chain management as well as to our core sustainability interests such as health, safety, environmental protection, human rights, ethics, business continuity and quality. In light of our extensive global network of suppliers, it is necessary to prioritize the suppliers we audit, as determined by supplier criticality and exposure to risks, which takes into account the following:

- ◆ Category of goods and services provided, as it relates directly or indirectly to risks associated with the type of labor performed and with its environmental impact
- ◆ Risks related to country-level (including regional) regulations applied to supplier activities performed or products provided
- ◆ Review of historical performance and concerns raised by internal key users and purchasing category managers whose assessment includes deep industry and market knowledge

Of the suppliers prioritized for audits in 2018, we were pleased to evaluate 91% of this subgroup on sustainability criteria, which represented 6% of the total number of our critical suppliers. The results of this pilot program have proved to be a reliable process for us to identify risks and opportunities with our critical suppliers while enhancing

our ability to collaborate with them. The sustainability audit findings reported by our internal auditors were acknowledged and fully addressed by suppliers. We also had the opportunity to uncover several best practices, which enabled us to identify and recognize some of our top-performing suppliers.

We look forward to integrating sustainability evaluations into our auditing practices after this successful pilot. This will support our ability to collaborate with our suppliers to identify new opportunities for improved social and environmental practices across our supply chain. To this end, we have established the goal of evaluating at least 50% of all our critical suppliers on their sustainability performance by 2025.

GRI 308-2 | GRI 414-2

### 2018 SUPPLIER SUSTAINABILITY AUDITS

<b>91%</b>	<b>Supplier Audits that Included Sustainability Criteria</b>
<b>6%</b>	<b>Critical Suppliers Audited on Sustainability Criteria</b>

### SUPPLIER SUSTAINABILITY AUDITS BY REGION



### Evaluating our emissions from distribution in Europe

As part of our strengthened focus on sustainability in our supply chain, we have begun to assess where we can work with our suppliers to have the greatest impact. One of these projects involved evaluating the emissions associated with the transportation of products from our manufacturing facilities to our customers. Our transportation and logistics team started with assessing modes of transport and distribution routes from our European facilities. We were especially interested in determining both the longest distribution routes from our facilities to customers and the emissions associated with the different modes of transportation we use.

Based on this information, we were able to calculate which routes were most emission-intensive, allowing us to collaborate with our customers, our suppliers and our business segments to discuss alternative transportation modes and routes so that we may potentially ship our products from other manufacturing sites in closer proximity to the customers. We look forward to expanding this work with the objective of setting a global baseline so we may track performance and develop related emission reduction targets.





# ACTING RESPONSIBLY FOR THE PLANET

19 Environmental Compliance



20 Energy



22 Emissions



23 Waste & Spills



25 Water



Environmental issues significantly affect us all on a global scale, and it is the responsibility of governments and corporations alike to help find solutions to these challenges. As such, we seek to conduct our business in a sustainable manner and to deliver innovative solutions that help address the sustainability challenges of our customers, our communities and our world. We acknowledge that we have a responsibility not only to remain compliant with applicable environmental regulations in the locations where we operate but also to lessen the impacts we have on the planet. We are proud of the steps we have taken to address environmental performance and the leadership we have shown within our industry, but we also know that our work is not done. We must continue to work toward innovative, cost-effective solutions to reduce our environmental impacts while remaining competitive within our industries.

Of the 11 material topics serving as the foundation of our sustainability program, more than half are related to environmental performance. The management of these topics is guided by our Safety, Health and Environment (SH&E) Policy, and our performance is measured against specific goals to reduce greenhouse gases (GHGs), nitrogen oxide (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>) emissions, and waste by 2025. We also continuously monitor our environmental compliance performance against internal year-over-year improvement targets. To accelerate our performance, we routinely evaluate our environmental management practices to uncover broader opportunities that translate to environmental benefits, increased efficiency and reduced operating costs.

The Safety, Health, Environment and Sustainability (SHE&S) Committee of our Board of Directors has oversight of environmental issues at the highest governance level. Executive leadership for implementing environmental strategies and policies is provided by the senior vice president for SH&E, who is responsible for guiding our company on all matters related to SHE&S performance and oversees a global team of professionals assisting our locations in improving overall environmental performance.

GRI 103-1 | GRI 103-2 | GRI 103-3



## ENVIRONMENTAL COMPLIANCE

### OUR COMMITMENT

Responsibility is one of our core values, and one way we demonstrate this is through our commitment to 100% compliance with the local, regional and national environmental laws and regulations under which we operate. Our ability to maintain compliance plays a major role in our license to operate, by demonstrating to our stakeholders that we are respectful of the law and fully capable of conducting our business in accordance with the permits that have been established to preserve the natural environment we all share.

GRI 103-1

### OUR MANAGEMENT APPROACH

Compliance is managed through our Drive to Zero initiative focused on reducing environmental non-conformance (ENC) events, which we define as any event resulting in a reportable spill or release, a notice of violation, a public complaint, or a regulatory permit deviation. Our internal standards are developed to meet or exceed laws, regulations and the requirements of voluntary programs such as

Responsible Care. Our approach to compliance is designed to prevent environmental incidents by emphasizing proactive measures such as training and job planning with employees, contractors and business partners. Environmental awareness training is provided to manufacturing facility employees as part of their new employee orientation training, and ongoing training is provided for job-specific tasks in order to maintain a high level of performance.

We seek to promote continuous improvement by undertaking thorough investigations of any incidents that do occur in order to identify the root cause of the event and determine appropriate corrective actions. To help minimize the potential for repeating a similar incident, the results of these findings are shared broadly throughout our global network of facilities. We manage compliance through our comprehensive SH&E audit program. These audits are conducted regularly and provide another opportunity to share best practices and learnings across our network.

GRI 103-2 | GRI 103-3

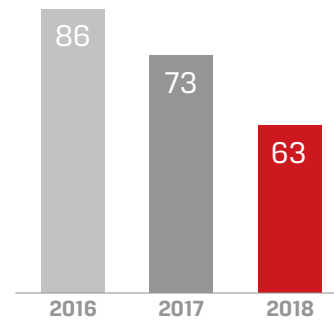
### OUR PERFORMANCE

As part of our ongoing effort to eliminate ENCs, we realized a 14% reduction in the number of these occurrences in 2018 compared with 2017 and a 27% reduction compared with 2016. This improved performance is partly attributed to investments in environmental infrastructure, training, awareness and improved tracking of environmental obligations.

In 2018, only one ENC resulted in a penalty. We incurred a fine of \$3,200 for a failure to properly report quarterly opacity readings at one of our facilities in the United States. In response, we have implemented a more robust system to monitor permit requirements.

GRI 307-1

### ENVIRONMENTAL NON-CONFORMANCES



## ENERGY

### OUR COMMITMENT

Our focus on energy is consistent with our corporate strategy calling on us to generate value through efficiency and optimization. We know that, in many cases, improved energy efficiency delivers both emissions reduction and economic benefits. Our manufacturing processes are heavily dependent on energy, and we are committed to continuously looking for ways to reduce our consumption and advance toward our goal of reducing our energy intensity. We work toward implementing new innovations in equipment, process technologies and waste heat recovery systems as our primary levers to help us achieve efficiency improvements, in addition to considering alternative energy sources that can lead to improved efficiency.

GRI 103-1

### OUR MANAGEMENT APPROACH

Because energy is such a crucial part of our manufacturing processes, energy use is managed at several levels throughout the organization. Leaders from our business segments, Corporate SH&E, Global Engineering and our research teams collaborate to evaluate new energy-saving technologies and implement capital programs to improve energy efficiency and enhance our ability to capture and

utilize waste energy. Management practices designed to optimize operations and implement efficiency measures are undertaken at the facility level. Data on energy use and sources is collected and analyzed through our internally developed corporate energy metric, which evaluates the energy efficiency of each facility and is used to determine energy trends and improvement opportunities.

GRI 103-2 | GRI 103-3

## OUR PERFORMANCE

We continue to make progress on our energy intensity reduction goal through the use of more efficient processes as well as our investments of waste heat recovery systems and energy-efficient motors and lighting. While our overall energy use increased in 2018, our energy intensity improved by 1.2% from 2017. Much of this

improvement can be attributed to implementation of more efficient processes in our Purification Solutions business. We recognize our progress on this goal has been slow, but we look to current and planned energy center investments as well as energy audits to achieve this goal.

GRI 302-1 | GRI 302-3

### ENERGY USE

Exclusive of Energy Sold

USAGE MMGJ	INTENSITY* Intensity GJ / MT of Production
2018 136.39	2018 62.22
2017 131.16	2017 62.99
2016 126.13	2016 63.10

\*Progress Toward 2025 Goal **44%**



### ENERGY TYPES

0.1%	LIQUID FUELS MMGJ	0.09
0.1%	STEAM MMGJ	0.12
1.8%	PURCHASED ELECTRICITY MMGJ	2.65
2.9%	NATURAL GAS MMGJ	4.18
95.1%	RAW MATERIALS MMGJ	137.32
<b>TOTAL MMGJ</b>		<b>144.36</b>

### Optimizing energy usage in Sarnia

As part of our pursuit of efficient technologies, our facility in Sarnia, Canada, successfully implemented several measures to improve energy efficiency. The facility converted approximately 100 light fixtures from high-pressure sodium lights to LED lights, saving an estimated 40,500 kilowatt hours (kWh) of electricity per year. Additionally, over a two-year period, the facility initiated several improvements to reduce its usage of natural gas, including the addition of new building insulation to reduce heat loss and the installation of several new electric steam condensate pumps that allow for the recovery of hot water. The combined savings from the improvement projects was approximately 1,800,000 m<sup>3</sup> of avoided natural gas consumption, an amount equivalent to that used by approximately 375 households in Canada over the course of a year.

### Converting waste heat to energy in Shimonoseki

Our Shimonoseki, Japan, site recently found a new way to convert excess steam to electricity, reducing our dependency on purchased electricity. The facility is required to incinerate 100% of tail gas produced by the carbon black manufacturing process and convert the heat to steam. With the installation of three STEAMSTAR™ generators, we can now convert that steam to electrical power. Each machine can generate up to 160 kilowatts of energy, and the steam that cannot be used internally is sold to a neighboring facility.



# EMISSIONS

## OUR COMMITMENT

We understand the impacts associated with GHG emissions and other air pollutants, including linkages to climate change, public health concerns and threats to ecosystems. We also recognize that emission reductions are often a signal of improving overall operational efficiency at our manufacturing facilities. We therefore see our focus on emission reductions as a potential competitive advantage, and we look to partner with our customers and others who share our goal of reducing emissions impacts across the value chain. We monitor our emissions closely and work to minimize our respective impacts in support of maintaining compliance with our regulatory obligations and reducing our global environmental footprint.

GRI 103-1

## OUR MANAGEMENT APPROACH


The overall management strategy for our emission reduction program is led by our business segments, regions and individual facilities. We continue to look to develop and implement cost-effective technologies that help meet both our emission reduction and our operational efficiency goals. We engage closely with governments in the areas where we operate, as they aim to reduce industrial and commercial sources of emissions in their communities. Often, this engagement is through our active participation and leadership in various industry groups.

GRI 103-2 | GRI 103-3


## OUR PERFORMANCE

By the end of 2018, we had realized 50% of our 2025 GHG reduction target. This was achieved through efforts to capture waste heat and offset our purchase of electricity and by improving our process yields through technology, product selection and feedstock selection. Looking forward, additional process technology improvements are under development for deployment at one of our recently announced expansions in Asia, with the expectation that this technology could be deployed at other facilities.


GHG EMISSIONS		2016	2017	2018
<b>ABSOLUTE EMISSIONS</b>				
<b>SCOPE 1</b> MM MT CO <sub>2</sub> e		4.50	4.58	<b>4.77</b>
<b>SCOPE 2</b> MM MT CO <sub>2</sub> e		0.34	0.33	<b>0.32</b>
<b>EMISSION INTENSITY*</b>				
<b>SCOPE 1</b> MT CO <sub>2</sub> e / MT Production		2.25	2.20	<b>2.18</b>
<b>SCOPE 2</b> MT CO <sub>2</sub> e / MT Production		0.17	0.16	<b>0.15</b>

 \*Progress Toward 2025 Goal **50%**

SO <sub>2</sub> EMISSIONS		2016	2017	2018
<b>SO<sub>2</sub> ABSOLUTE EMISSIONS</b> KMT				
		41.80	43.20	<b>43.73</b>
<b>SO<sub>2</sub> EMISSION INTENSITY*</b> MT / KMT Production				
		20.91	20.75	<b>19.95</b>

 \*Progress Toward 2025 Goal **30%**

NO <sub>x</sub> EMISSIONS		2016	2017	2018
<b>NO<sub>x</sub> ABSOLUTE EMISSIONS</b> KMT				
		13.97	13.23	<b>9.77</b>
<b>NO<sub>x</sub> EMISSION INTENSITY*</b> MT / KMT Production				
		6.99	6.35	<b>4.45</b>

 \*Goal Achieved

In 2018, we experienced our first full year of operations of our NO<sub>x</sub> emission reduction system at our facility in Pampa, Texas, USA. This system has continuously achieved a 90% reduction for what was previously our most intensive facility in terms of NO<sub>x</sub> emissions. Furthermore, we successfully completed the NO<sub>x</sub> control system at our largest carbon black manufacturing facility, in Tianjin, China; these controls also achieved a 90% reduction of NO<sub>x</sub> emissions. Through these efforts, we were able to exceed our global NO<sub>x</sub> emission reduction target well ahead of schedule.

Our SO<sub>2</sub> emissions were consistent with previous years, with slight variation based on fluctuations in our feedstock sulfur content and the products we produced. However, we continue to make progress on the implementation of our SO<sub>2</sub> control system at our facility in Franklin, Louisiana, USA, and we have started the early engineering for the control system at our nearby Ville Platte facility. These systems are expected to be operational in 2021 and 2022, respectively.

GRI 305-1 | GRI 305-2 | GRI 305-4 | GRI 305-7



## WASTE & SPILLS

### OUR COMMITMENT

We acknowledge the potential impact that solid waste disposal or spills of hazardous materials could have on the environment in our local communities. Therefore, we take a targeted approach to minimize waste, and we work toward zero spills at our facilities. We also believe that finding alternative uses for waste materials and byproducts presents opportunities to further contribute to a circular economy. As such, our waste goal is to reduce the amount of waste generated at our facilities that is not beneficially used for energy recovery or other purposes.

GRI 103-1

### OUR MANAGEMENT APPROACH

Waste is measured by tracking progress against our intensity target and seeking opportunities to reduce waste during manufacturing. Expectations for the management of waste and the handling of chemicals are governed by internal standards applicable to all our manufacturing facilities. Compliance with these expectations is regularly evaluated through our comprehensive SH&E audit program. We aim to avoid all spills through careful management and design of the processes at our facilities, and we conduct training on spill management and emergency response so we are prepared in the event of an incident. We also implement programs to identify reuse opportunities for off-quality products and other waste streams, and to improve facility resource efficiency to reduce waste generation.

GRI 103-2 | GRI 103-3

### OUR PERFORMANCE

Our goal for reducing the intensity of disposed waste was achieved in 2016, but in 2018 we continued to look for ways to reduce waste generation and beneficially use the waste we do generate. Because a one-time sludge removal project in 2017 increased the overall amount of waste generated, we removed the quantity of waste generated from that project from year-over-year trending to provide a better evaluation of progress within our ongoing operations. Taking this into account, we reduced our waste disposal intensity by 2.1% over 2017 and by 2.6% over 2016. In 2018, we also saw 17% and 25% increases in the amount of waste we were able to beneficially use over 2017 and 2016, respectively. The majority of this increase was related to material from tank cleanings which was reused for energy recovery.

A single waste stream at one facility accounts for over 93% of our disposed waste. This stream is directly related to the production activities at that facility, and we expect planned changes will likely reduce that waste stream significantly in the future.

In 2018, we experienced a release at our facility in Franklin, Louisiana, USA, as the result of a relief valve that did not properly close upon unit startup, triggering notifications

to state and federal regulatory agencies. There were no injuries as a result of this event. Corrective actions were implemented to avoid this issue in the future, including upgrading the relief valve and installing additional alarms and interlocks to prevent operation of the unit with this valve open.

GRI 306-2 | GRI 306-3

WASTE GENERATION	2016	2017	2018
<b>ABSOLUTE VOLUME</b>			
<b>NONHAZARDOUS</b> KMT	44.98	102.65	<b>49.83</b>
<b>HAZARDOUS</b> KMT	378.05	398.28	<b>405.86</b>
<b>WASTE INTENSITY</b>			
<b>NONHAZARDOUS</b> MT / KMT Production	22.50	49.30	<b>22.73</b>
<b>HAZARDOUS</b> MT / KMT Production	189.11	191.27	<b>185.15</b>



WASTE DISPOSAL	2016	2017	2018
<b>TOTAL WASTE DISPOSED – ABSOLUTE</b> KMT	401.34	415.78	<b>428.62</b>
<b>TOTAL WASTE DISPOSED INTENSITY*</b> MT / KMT Production	200.76	199.68	<b>195.53</b>
*Goal Achieved			
<b>BENEFICIALLY REUSED MATERIALS</b>			
<b>WASTE BENEFICIALLY USED</b> KMT	21.69	85.16	<b>27.07</b>
<b>WASTE BENEFICIALLY USED INTENSITY</b> MT / KMT Production	10.85	40.90	<b>12.35</b>

### Meeting recycling goals in Haverhill

As part of a continued effort to reduce waste where possible, our facility in Haverhill, Massachusetts, USA, set a target for the 2018 fiscal year of recycling 50 tons of materials and 5 million gallons of water. The facility team implemented water recovery through reverse osmosis and was able to recycle 5.6 million gallons of water. By employing proper waste segregation and working with key partners, the facility was able to recycle 54 tons of cardboard, paper, plastics, metal, wood pallets and drums. Both of these efforts exceeded the facility's 2018 targets and set up the team for continuous improvement in future years.



# WATER

## OUR COMMITMENT

Water is vital to human life and healthy ecosystems around the globe. It is also a natural resource we depend on in our manufacturing processes, and we must pay close attention to ensuring responsible water consumption and management. Therefore, we seek to conserve water across our operations and to discharge wastewater that is properly treated to avoid degradation to the surrounding environment. We also look to develop applications for our products that help conserve and protect water resources, including the use of our masterbatch material in durable water piping and our activated carbon products in water purification systems.

GRI 103-1

## OUR MANAGEMENT APPROACH

Responsibility for water resource management predominantly resides at the facility level. Both intake and discharge of water are typically governed by state and local water permits, and we strive for full compliance with our obligations under these permits. We also look for opportunities to increase water efficiency and recycle wastewater when feasible.

Our water management is evaluated by reviewing data on water withdrawal and water discharge intensity. This allows us to evaluate our water usage for each of our business units, as our numerous manufacturing processes vary in their water requirements. While we do not yet have a goal related to water use, we have been monitoring annual water use and discharges at our manufacturing facilities since 2009 to better understand where our water is sourced; what our withdrawal rates are; and the volume, quality and destination of water discharged from our facilities. Each year, as part of our comprehensive Enterprise Risk Management program, we conduct a water risk evaluation of our manufacturing facility locations in order to identify which of them may be impacted by future water scarcity issues.

GRI 103-2 | GRI 103-3

## OUR PERFORMANCE

In 2018, we saw a 3% increase in our water use intensity, with the largest increase associated with the restart of our aerogel facility in Frankfurt, Germany. This increase was offset by decreased water use at our Purification Solutions facilities from decreased use of water-intensive production activities.



<b>WATER USE AND DISCHARGE</b>	2016	2017	2018
<b>ABSOLUTE VOLUME</b>			
<b>WATER USAGE</b> MM m <sup>3</sup>	51.89	54.06	<b>58.53</b>
<b>WATER DISCHARGE</b> MM m <sup>3</sup>	39.94	40.22	<b>43.34</b>
<b>WATER INTENSITY</b>			
<b>WATER USAGE</b> MM m <sup>3</sup> / MT	25.96	25.96	<b>26.70</b>
<b>WATER DISCHARGE</b> MM m <sup>3</sup> / MT Production	19.98	19.31	<b>19.77</b>

## WATER SOURCES

<b>70%</b>	<b>SURFACE</b> MM m <sup>3</sup>	<b>40.97</b>
<b>25%</b>	<b>PURCHASED</b> MM m <sup>3</sup>	<b>14.38</b>
<b>4%</b>	<b>GROUND</b> MM m <sup>3</sup>	<b>2.28</b>
<b>2%</b>	<b>GRAY</b> MM m <sup>3</sup>	<b>0.89</b>

## WATER DISCHARGE DESTINATION

<b>93%</b>	<b>SURFACE</b> MM m <sup>3</sup>	<b>40.47</b>
<b>5%</b>	<b>PUBLIC OR PRIVATE SEWER</b> MM m <sup>3</sup>	<b>2.31</b>
<b>1%</b>	<b>GROUNDWATER / OTHER</b> MM m <sup>3</sup>	<b>0.56</b>

GRI 303-1 | GRI 303-3 | GRI 306-1





# CARING FOR OUR PEOPLE & COMMUNITIES

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27 Occupational Health & Safety



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30 Retention, Development & Diversity



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34 Community Engagement



We recognize that our people are key to our ability to execute on our sustainability agenda. Our commitment to providing safe working conditions and involving all our employees in our safety efforts has been a fundamental part of our history. This focus on safety helps us attract and retain top talent from around the world and helps ensure reliable performance in our manufacturing operations. We also offer our employees professional development opportunities and competitive compensation and benefits. We are committed to increasing employee engagement by leveraging the diversity and aspirations of our people and developing their talents by fostering an inclusive acceptance of diversity in its many forms throughout our workplace. To remain a competitive employer, we acknowledge the importance of our company values, vision and sustainability program to our employees as we aim to continuously demonstrate our commitments and enhance our performance.

Our commitments extend to our communities where we strive to be a good neighbor through our active engagement and responsible business practices. We seek input and feedback from our communities and look for opportunities to contribute our time and resources so we can play a role in the growth and success of the areas where we operate.

GRI 103-1

## OCCUPATIONAL HEALTH & SAFETY

### OUR COMMITMENT

Our employees are our most valuable asset, and it is our responsibility as an employer to provide a safe work environment and promote wellness across the workforce. This focus on health and safety has been deeply engrained in our company throughout its history and serves as a central theme in our culture. Our goal is for all employees to return home in the same condition as when they arrived at work. We also strive to help employees lead healthy lifestyles, through a variety of initiatives and benefits.

GRI 103-1

### OUR MANAGEMENT APPROACH

The Safety, Health, Environment and Sustainability Committee of our Board of Directors has oversight of health and safety issues at the highest governance level. Executive leadership for implementing related strategies and policies is provided by the senior vice president for Safety, Health and Environment (SH&E), who is responsible for technical guidance on all matters related to SH&E performance and who oversees a global team of SH&E professionals including regional directors.

SH&E and site security are critical components of our culture. As part of our Drive to Zero initiative, we have set a long-term goal of having no injuries at our facilities worldwide. Recognizing that it may take many years to achieve this ambitious goal, we also established a nearer-term target of being among the top 10% of our peer chemical companies for safety performance. To help meet these goals, we provide training to all employees on safety procedures that meets or exceeds all applicable government regulations and internal standards.

Through our global SH&E Policy, which is endorsed by our executive leadership, we hold ourselves accountable to demonstrate our company values and continuously improve the way we operate. The policy includes guidance on:

- ◆ Complying with all applicable regulations
- ◆ Sharing complete information about the safe handling of our products
- ◆ Maintaining the safety and security of our employees, contractors and neighbors
- ◆ Minimizing impacts on our communities
- ◆ Exemplifying the Responsible Care® Guiding Principles
- ◆ Partnering with customers to develop innovative and sustainable solutions
- ◆ Improving efficiencies, reducing environmental impacts and preparing for emergencies

Our facilities are required to develop and implement a safety program that upholds the SH&E Policy and meets all applicable health and safety laws, as well as our company standards, which may exceed those regulations. This program provides oversight for all direct activities occurring in our facilities and within our operational control, including those that could impact employees, contractors and visitors. Additionally, the majority of our facilities organize local health and safety committees representing employees, including those in formal joint management agreements.

As part of our commitment to Responsible Care®, we remain focused on continuously improving the health and safety of our technologies, processes and products. In accordance with this certification, we report our performance metrics annually and undergo external audits regularly to evaluate our program, identify gaps and undertake corrective actions as needed. In addition to the Responsible Care audits, our sites routinely undergo robust internal SH&E audits, which evaluate procedures, practices and site conditions in accordance with SH&E regulations, internal company standards and industry-recognized best practices. These risk-based audits are conducted by teams of internal subject matter experts who are supported by external resources as needed.

Additionally, a key factor in keeping employees safe at our manufacturing facilities is our careful attention to process safety. This entails monitoring the condition and functionality of our processes, equipment and infrastructure to ensure our operations are as safe and efficient as possible. Prior to initial unit startups and when significant changes to operations are required, preparedness assessments are conducted by subject matter experts. We also carefully track process safety events, defined by the Center for Chemical Process Safety as any release of material or energy from a process that results in injury, fire, explosion or release of flammable, combustible or toxic chemicals. In accordance with the American Petroleum Institute's recommended practice RP-754, we utilize the Tier 1 and Tier 2 categorization approach to track our performance and report externally. Tier 1 events are considered more severe cases occurring from the loss of primary containment, while Tier 2 events have less significant consequences.

In the event of a process safety incident or high-potential near miss, a thorough incident evaluation is conducted to understand the root cause of the issue and assess how we may implement measures to avoid similar safety risks in the future. We share the results of these evaluations globally, so all our sites can learn from the event and reduce similar risks.

GRI 103-1 | GRI 103-2 | GRI 103-3 | GRI 403-1

## OUR PERFORMANCE

We believe that a strong safety culture contributes to the overall success of our business. It allows us to retain talent, remain operational and serve our customers as a reliable partner. As a result, we are diligent in measuring and monitoring our related performance. In 2018, we were pleased to see a decline of nearly 15% in the total recordable incident rate across the organization compared with the previous year. However, we saw a small increase in the total number of lost workdays associated with workplace injuries.

Our safety priorities in 2018 included the expansion of our Safety Leadership Training program around the world. This training helps develop the skills of our frontline leaders and enables them to better coach their teams on safety expectations and performance. We also expanded the use of location-specific safety improvement plans, which identify safety priorities for the year with a focus on continuous improvement. Through regular communication among our plants on their plans, we are enabling better sharing of best practices and ideas to address common safety challenges. To further our progress on our Drive to Zero, we held training for employees in multiple disciplines across all our regions on improved root cause analysis methods. We know that by continuing to develop our ability to learn from the incidents and near misses we experience, we will be able to make progress on our goal to send all our employees, contractors and visitors home safe, each and every day.

GRI 403-2

### TOTAL RECORDABLE INCIDENT & LOST TIME RATE

Injuries per 200,000 Work Hours

SAFETY RATES	2016	2017	2018
	<b>TOTAL RECORDABLE INCIDENT RATE</b>	0.46	0.47
<b>LOST TIME RATE</b>	0.27	0.26	<b>0.18</b>





**Process safety**

In 2018, we undertook a project to refresh our approach to process safety management so that we may better track our performance and identify opportunities for improvement in our program. In accordance with this effort, we have revisited and updated our approach for how we categorize Tier 1 and Tier 2 process safety events to ensure we report such events as accurately and transparently as possible. Previously, these classifications were considered only for incidents that were reported according to our internal definitions for environmental nonconformances, recordable injuries or significant process safety events. However, we realized a more thorough and accurate approach should also take into account other process safety events that were less significant than those originally considered, which resulted in updates to the historical Tier 1 and Tier 2 classifications.

Last year, we experienced three Tier 1 events and 10 Tier 2 events. The Tier 1 events included a material release from a relief valve, a release within a process area and a process fire. There were no injuries as a result of these events. The majority of Tier 2 events were related to incidents including chemical releases, most of which were captured within secondary containment, minimizing the impact to the environment. To provide an additional level of focus in our process safety management program, we introduced a series of leading performance indicators that we believe will help us prevent future incidents. These indicators track on-time completion of our process hazard analysis plans as well as closure of corrective actions from events and process safety audits.

<b>PROCESS SAFETY EVENTS</b>	2016	2017	<b>2018</b>
<b>TIER 1</b>	3	0	<b>3</b>
<b>TIER 2</b>	9	5	<b>10</b>

GRI 102-48

**Wuhai construction project completed without a recordable incident**

The critical role of safety in our culture is exemplified through our safety efforts during construction of our new fumed silica manufacturing facility in Wuhai, China. From the start of the project to its recent completion, safety was a key focus for our teams. As a result, we completed the project having achieved nearly 1.6 million work hours without a recordable injury amongst our employees and contractors. In 2018 alone, nearly 750,000 work hours were completed injury-free. This performance is attributed to strong safety management and implementation, which included a high level of risk assessment, detailed safety plans and contractor supervision, optimization of construction resources, and thorough safety training. The safety culture of zero incidents has been deeply rooted in the minds of all personnel and has helped demonstrate our commitment to safety to the surrounding community and our industry peers.

**USA Benefits Team launches successful well-being program**

We know that paying attention to our employees' overall health and wellness can contribute to our goal to keep our employees safe. With that in mind, we launched our You Matter well-being program at USA-based facilities. In the program's first year, more than 50% of our USA employees participated in activities ranging from biometric screenings and health risk assessments to mindfulness activities and exercise challenges. The program has brought positive changes to participants' overall health by helping them better manage stress, increase their physical activity and improve their sleep habits. We are proud that the New England Employee Benefit Council has recognized the You Matter program with a Best Practices Award for design and communication.





# RETENTION, DEVELOPMENT & DIVERSITY

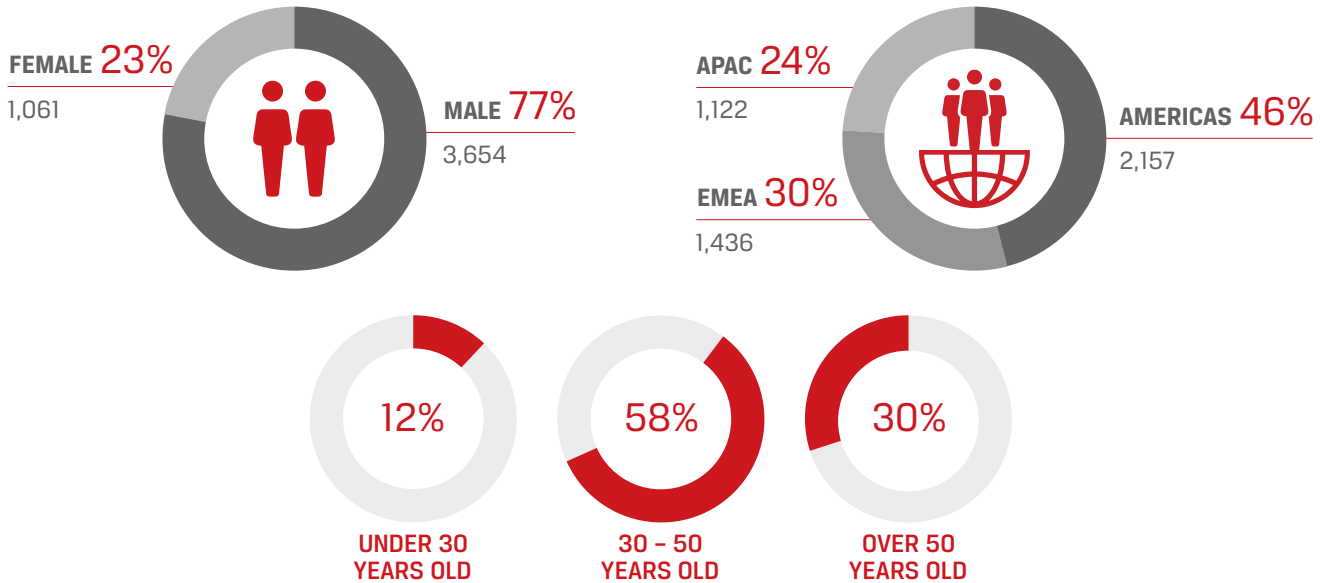
With approximately 4,700 employees around the world who represent a wide variety of backgrounds and make our business possible, we are committed to celebrating the diversity of all our employees and supporting them in realizing successful careers.

Reporting to the CEO, the senior vice president and chief human resources officer (CHRO) oversees programs and processes to attract, develop, retain and support our employees and routinely updates the Board of Directors on related initiatives. The Human Resources

department enables managers across the company to drive performance and employee development through the use of our performance management process and the implementation of our Code of Business Ethics and our Human Rights Policy, which establish expectations for professional conduct, strict adherence to labor practices and human rights laws, and the creation of a safe and healthy workplace.

GRI 102-8 | GRI 103-1 | GRI 103-2 | GRI 103-3 | GRI 405-1

## TOTAL WORKFORCE **4,715**



### GLOBAL WORKFORCE BY CONTRACT

GENDER	MALE		FEMALE	
	Count	Percentage	Count	Percentage
PERMANENT	3,632	78%	1,045	22%
TEMPORARY	22	58%	16	42%
FULL TIME	3,620	79%	980	21%
PART TIME	34	30%	81	70%

REGION	AMERICAS		EMEA		APAC	
	Count	Percentage	Count	Percentage	Count	Percentage
PERMANENT	2,139	46%	1,416	30%	1,122	24%
TEMPORARY	18	47%	20	53%	-	0%
FULL TIME	2,139	47%	1,339	29%	1,122	24%
PART TIME	18	16%	97	84%	-	0%

# RETENTION & DEVELOPMENT

## OUR COMMITMENT

We understand that employees have a choice of where they work, and it is our goal to remain an attractive employer for top talent. We depend on the broad range of skill sets and experiences from our workforce to be successful as a business and advance on our sustainability journey. At the same time, we seek diverse candidates for all positions while providing competitive benefits and professional development programs to all employees to ensure they are treated fairly and equally. By developing our employees' knowledge and skills, we offer our people opportunities for advancement, enhance value for our customers, and retain talent to further our leadership position. This also benefits our employees' families and local communities by building intellectual capital and supporting broader economic stability.

GRI 103-1

## OUR MANAGEMENT APPROACH

Reporting to the CHRO, the director of talent management and development is responsible for developing and leading the execution of our talent strategy, focused on building our current and future talent pipeline through the development of our employees as well as the recruitment of external candidates.

Employment decisions are based on merit and qualifications, regardless of race, color, national origin, religion, gender, sexual orientation, age, disability, veteran status or any other legally protected status. An in-house talent acquisition team leads outreach and recruitment efforts suited to local market dynamics and business needs. We develop a talent pipeline by offering internships, apprenticeships and training to students in many of the communities in which we operate.

To ensure employees have their basic needs met in order to live healthy and productive lives, we offer comprehensive benefits programs that are designed to meet or exceed requirements and standards for the countries in which we operate. While our benefits vary by location, we typically provide healthcare, life and accidental insurance, disability, retirement and pension plans, business travel accident insurance, medical travel insurance, vacation time, holiday and leave entitlement, educational financial assistance, and access to retiree medical coverage.

We recognize the potential each employee brings to our company and we are committed to helping them realize their potential to the fullest. Our approach to development is multifaceted and encourages:

- ◆ on-the-job development, including stretch assignments and rotations

- ◆ continuous feedback from managers, mentors and peers
- ◆ formal learning opportunities including leadership development programs, functional and technical skills training, and professional conferences

We utilize a performance-based management (PBM) approach, which is a cyclical, year-round process through which managers and employees work together to plan work and set expectations, review progress and results, reward performance, and discuss development areas to support performance improvement and career growth.

GRI 103-2 | GRI 103-3 | GRI 401-2 | GRI 402-2

## OUR PERFORMANCE

### Revisiting our culture

Recognizing that our company culture plays a critical role in our ability to fulfill our vision, successfully execute our business strategy and advance our leadership position, we evaluated the fundamental aspects of our culture in 2018 and explored how we could more effectively manage and strengthen it. Our culture is grounded in a collaborative spirit, our commitment to SH&E and acting in the best interests of our company. We look to create an environment that is conducive to the spirit of entrepreneurship and innovation while empowering every team member to take responsibility for the execution of our strategy.

Through engagements with members of our global leadership team, we identified areas of our culture that we wanted to keep, areas that we wanted to improve and aspects that we wanted to diminish. Employees were encouraged to take action to adopt and reinforce the outcome of this effort in their roles and within their teams.

To support this effort, we equipped our leaders to actively engage with their teams by providing resources to help employees understand their role in advancing the culture journey, as well as techniques to improve inclusivity and efficiency.

**Upgrading our performance management approach**

In 2018, we redesigned the employee PBM review process to encourage more routine employee-manager development conversations, enhance performance feedback and reduce administrative inefficiencies. The new approach emphasizes the importance of managers

and employees engaging in ongoing discussions to promote employee development and track progress toward achieving performance objectives.

In addition to training sessions required for all managers and employees participating in the PBM process globally, we provided a dedicated toolkit with supportive materials to equip managers and employees to engage in the process and support employees' ongoing performance and development.

GRI 404-2

**TURNOVER BY GENDER, REGION AND AGE GROUP**

TURNOVER BY GENDER	MALE		FEMALE	
DEPARTING COMPANY	338	9%	115	11%
NEW HIRES	520	14%	175	16%

TURNOVER BY REGION	AMERICAS		EMEA		APAC	
DEPARTING COMPANY	246	11%	134	9%	73	7%
NEW HIRES	301	14%	177	12%	217	19%

TURNOVER BY AGE GROUP	< 30		30 - 50		> 50	
DEPARTING COMPANY	107	19%	209	8%	137	10%
NEW HIRES	250	44%	373	14%	72	5%

**PERFORMANCE REVIEWS BY EMPLOYEE CATEGORY**

1,510	CLERICAL/TECHNICAL
1,077	PROFESSIONAL/SUPERVISOR
876	MANAGEMENT/EXPERIENCED

2,543	MALE
920	FEMALE



GLOBAL WORKFORCE RECEIVING PERFORMANCE REVIEWS

GRI 102-8 | GRI 404-1 | GRI 404-3

**Developing leadership skills and accountability**

We drive our culture and business success forward by empowering our employees to take ownership, provide solutions and deliver on our commitments. Our Asia Pacific region invested in workshops focused on building strong leadership skills and establishing a shared mindset of accountability. The sessions, facilitated by members of the regional leadership team, used practical examples from our company to demonstrate how action-oriented behaviors and greater accountability can better enable us to achieve our objectives. Based on what they learned, attendees developed specific action plans to apply in their work activities so they can continue strengthening these skills.

**Enhanced USA Parental Leave Policy**

In July 2018, we introduced our paid Parental Leave Policy for USA-based employees, which gives parents the flexibility to care for the newest additions to their families. The policy provides paid leave to both primary and secondary caregivers, regardless of gender. We also enhanced our Short-term Disability Policy for mothers, to provide additional income stability while they recover from childbirth.

# DIVERSITY

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## OUR COMMITMENT

We have a firm belief that fostering diverse perspectives and experiences not only builds a community of employees who feel included and valued but also enhances our ability to be innovative. Our business success depends on our ability to create an environment in which we all understand and acknowledge the importance of our differences. This supports our efforts in recruiting and retaining top talent and establishing a welcoming environment for our employees.

GRI 103-1

## OUR MANAGEMENT APPROACH

With respect as one of our core values, we were proud to formally launch a Diversity and Inclusion (D&I) Council in the beginning of 2018. The Council comprises a cross-section of business leaders from across our company, with the directive to examine how we promote and support diversity in all its forms. Policies and practices were reviewed from both global and local perspectives with the objective of ensuring that we build an inclusive environment in which employees with diverse backgrounds and experiences feel valued and welcome to share new ideas, challenge the status quo, and collaborate broadly within and across their teams.

In September 2018, we hired our first diversity and inclusion director to further advance the work of the D&I Council, including championing a strategy and setting goals and objectives to drive a more inclusive and diverse culture. The director partners with Human Resources and business leadership to design strategies that attract and retain diverse employees, deploy related trainings, and develop and track metrics to ensure accountability and monitoring of D&I efforts.

GRI 103-2 | GRI 103-3

## OUR PERFORMANCE

Our top priority for diversity and inclusion in 2018 was to define what this topic means to us as a company and how we will build an inclusive environment in which employees can be their genuine selves. The D&I Council set a charter as well as objectives, which included benchmarking D&I activity with other companies, defining more clearly and precisely what the terms "diversity" and "inclusion" mean to us, and sharing this information on our website. As part of this effort, we hosted an executive leadership session

to define D&I and prioritize our focus areas. In addition, we began a process of determining what systems and key performance indicators should be introduced to help us ensure success in making our company a place where employees with diverse backgrounds and experiences feel welcome and supported.

### Ensuring fair and equal pay

In 2018, we completed our first global gender pay equity analysis. The purpose of this review was to ensure employees in the same job and location are paid comparably to one another, considering job-related factors such as work experience, education and contributions, without discrimination on the basis of gender. To encourage fair and equal compensation decisions in the future, we offered pay equity training for all managers and Human Resources representatives in North America, and we pledged to complete a global gender pay equity review on an annual basis.

### Promoting diversity in our decision-making

In support of our commitment to fostering inclusivity and enriching our organization with diversity, we seek to develop teams representing a variety of backgrounds. This was demonstrated at the highest level of leadership with the naming of one of our female directors as chairperson of the Board of Directors, and we continue to look for ways to provide opportunities for minority groups throughout our workforce. To this end, we initiated unconscious bias training with internal focus groups, including all members of our Executive Committee. The training focused on gaining a better understanding of what unconscious bias is and on simple tactics that can be used to reduce the risk of partiality entering our decision-making.





# COMMUNITY ENGAGEMENT

## OUR COMMITMENT

Throughout our history, we have maintained a strong sense of community and have strived to be a good corporate citizen. We understand the value of partnering with the communities in which we operate, and we recognize that thriving and resilient communities are essential for a sustainable future. Community engagement benefits our neighbors, resonates with employees on a personal level and allows us to operate with the trust and confidence of our neighbors. We are fortunate to have a workforce comprised of many individuals who are willing and able to contribute to this important effort by offering their time and skills to have a positive impact on our communities.

GRI 103-1

## OUR MANAGEMENT APPROACH

There are two primary conduits for our community engagement efforts. The first is giving at the corporate level by the Cabot Foundation, and the second is through facility-led initiatives.

The Cabot Foundation was established in 1953 to support qualified charitable, nonprofit organizations in the United States. The charter was amended in 1992 to include grants to qualified charitable organizations outside of the United States in support of our intent to have meaningful impacts across our global footprint. Our Board of Directors annually approves a budget for the Foundation's donations. Decisions for how these funds are distributed is the responsibility of the Foundation's Board of Directors, which meets quarterly to review grant proposals and evaluate the impact of this giving to ensure funds are used in ways that align with our company's overall values and address the needs of our communities.

Our facilities are responsible for developing and fostering relationships in their local community, and they are committed to making a meaningful difference in many ways. At some locations, company representatives are involved in local industry associations. Active community engagement teams at many of our locations take the lead in evaluating the needs of the community and identifying organizations the facility may partner with to deliver a lasting and meaningful impact. Our community engagement activities take the form of volunteer events, charitable giving and sponsorship of local causes. In the case of monetary contributions, funds are typically managed as part of facility budgets, with additional resources available through the Cabot Foundation.

More than half of our facilities globally have dedicated community outreach teams responsible for preparing local community engagement plans.

GRI 103-1 | GRI 103-2 | GRI 103-3 | GRI 413-1

## OUR PERFORMANCE

In 2018, we donated more than \$1.4 million to worthy causes around the world. This included Foundation disbursements of \$853,000 and individual facility donations totaling \$596,000. These fiscal contributions were over and above the numerous ways our employees found to give back to their communities through volunteerism and personal giving.

### Aligning giving with our sustainability strategy

One key area we focused on for community engagement during 2018 was the alignment of the Foundation's giving with our overall sustainability objectives. We undertook this effort with the recognition that the Foundation plays a unique role in providing financial support to our communities around the globe while fostering long-term partnerships with organizations that can support our shared sustainability goals. To this end, the Foundation's Board of Directors conducted a thorough review of the themes supported by its charitable grants to ensure they complement the material topics underpinning our sustainability strategy. Looking forward, we intend to draw inspiration from our overarching sustainability objectives to help direct our community engagement activities at our facilities in addition to the Foundation's giving decisions.

GRI 413-1

### Volunteering to protect the environment

Our sites around the world are committed to making the world a better place by supporting local charities, improving our environment and reducing our environmental footprint. Our site in Billerica, Massachusetts, USA, recently launched a sustainability committee, which identifies opportunities for on-site improvements in materials and energy efficiency and organizes environmental cleanup activities. Our colleagues in Altamira, Mexico, partnered with neighboring industrial facilities to coordinate an environmental benchmarking activity with the goal of reducing plastic pollution. Similarly, our site in Xingtai, China, participated in Act for Beautiful China, through which we shared our industry-leading SH&E practices with other companies. By taking a localized approach to our environmental objectives, we empower our colleagues around the world to collaborate within their facilities and communities to make a meaningful difference.

### Contributing to healthy and fulfilling programs for youth in Brazil

With financial support from the Cabot Foundation and the leadership of employees at our carbon black facility in Maua, Brazil, we were able to make a difference in the lives of local youth. The Associacao Esportiva Cidade Imaculada is an organization dedicated to helping underserved children between the ages of 5 and 18 embrace their culture, gain a sense of community, and develop confidence in their ability to positively influence society through sports, cultural and academic programs. We were proud to contribute to this important cause with a donation in 2018 that funded improvements to their soccer field with the installation of a new fence around the perimeter. This project not only revitalized the recreational area, but it also served as a significant safety improvement, as the previous fencing was exposing children to hazards such as sharp edges from a metal fence that had fallen into disrepair.

### Encouraging future chemical engineers

In 2018, the Foundation was proud to support the Doing a World of Good Campaign sponsored by the American Institute of Chemical Engineers (AIChE). This program focuses on five priorities identified by the AIChE community as imperative to shaping the future of chemical engineering, one of which we made a three-year commitment to fund: the Undergraduate Process Safety Learning Initiative. The goal of this initiative is for all graduating chemical engineering students to have a working knowledge of process safety. We believe preparing the future workforce of the chemical industry to conduct their work safely is of the utmost importance and consistent with the high expectations we set for ourselves at Cabot.

# GRI CONTENT INDEX



For the Materiality Disclosure Service, GRI Services reviewed that the GRI content index is clearly presented and the references for Disclosures 102-40 to 102-49 align with appropriate sections in the body of the report.

## GRI 101: Foundation 2016

# GENERAL DISCLOSURES

## GRI 102: General Disclosures 2016

Disclosure Number	Disclosure Title	Page Number / Response
102-1	Name of the organization	Cabot Corporation
102-2	Activities, brands, products, and/or services	p. 8
102-3	Location of headquarters	2 Seaport Lane, Suite 1300, Boston, MA 02210 USA
102-4	Location of operations	pp. 8-9
102-5	Ownership and legal form	Cabot Corporation is a publicly traded corporation ( <a href="#">NYSE: CBT</a> ).
102-6	Markets served	p. 8
102-7	Scale of the organization	Refer to p. 8 for the number of employees and operations. Net revenue is listed on p. 14. Total capitalization can be found in Cabot's Form 10-K filed November 21, 2018. Part II, Item 8 Financial Statements and Supplementary Data.
102-8	Information on employees and other workers	pp. 30, 32 We regularly engage a relatively small percentage of non-employee contractors, typically hired for specific project-based work or discrete periods of time.
102-9	Supply chain	p. 16
102-10	Significant changes to the organization and its supply chain	p. 8
102-11	Precautionary principle or approach	Throughout our operations and our product development, we are guided by the precautionary principle and carefully take into account effects on the environment, health and safety.
102-12	External initiatives	pp. 7-8, 11 In addition to the UNGC, Cabot participates in the Carbon Disclosure Project, and we comply with the ACC Responsible Care® program as part of our commitment to safety, health and environment (SH&E).
102-13	Memberships of associations	Cabot is an active member of the following national and international industry/advocacy groups and associations: <ul style="list-style-type: none"> <li>◆ Advanced Porous Materials Association (AdvaPor)</li> <li>◆ American Chemistry Council (ACC)</li> <li>◆ Association of Synthetic Amorphous Silica Producers (ASASP)</li> <li>◆ China Petroleum &amp; Chemical Industry Federation (CPCIF)</li> <li>◆ Corporate Environmental Enforcement Council (CEEC)</li> <li>◆ Environmental Law Institute (ELI)</li> <li>◆ essencia (Belgium)</li> <li>◆ European Masterbatchers and Compounders (EuMBC)</li> <li>◆ International Carbon Black Association (ICBA)</li> <li>◆ Manufacturers Alliance for Productivity &amp; Innovation (MAPI)</li> <li>◆ Nanotechnology Industry Association (NIA)</li> <li>◆ Society of Toxicology (SOT)</li> <li>◆ Synthetic Amorphous Silica and Silicate Industry Association (SASSI)</li> <li>◆ United Nations Global Compact (UNGC)</li> </ul>

**GRI 102: General Disclosures 2016** *continued*

Disclosure Number	Disclosure Title	Page Number / Response												
102-14	Statement from senior decision-maker	p. 5												
102-16	Values, principles, standards, and norms of behavior	p. 9												
102-18	Governance structure	The Board of Directors has five standing committees: Audit, Compensation, Executive, Governance and Nominating, and Safety, Health, Environment and Sustainability. For additional details on the Board's composition, refer to the <a href="#">Proxy Statement</a> .												
102-40	List of stakeholder groups	p. 10												
102-41	Collective bargaining agreements	Across all Cabot operations, 34% of employees are covered by collective bargaining agreements. The terms of collective bargaining agreements are fully aligned with Cabot's Code of Business Ethics ( <a href="http://cabotcorp.com/codeofbusinessethics">cabotcorp.com/codeofbusinessethics</a> ) and Human Rights Policy ( <a href="http://cabotcorp.com/humanrightspolicy">cabotcorp.com/humanrightspolicy</a> ).												
102-42	Identifying and selecting stakeholders	p. 10												
102-43	Approach to stakeholder engagement	p. 10												
102-44	Key topics and concerns raised	p. 10												
102-45	Entities included in the consolidated financial statements	Refer to Cabot's Annual Report Form <a href="#">10-K</a> filed November 21, 2018, Part I, Item 1. Business for a description of our operations and entities in which Cabot has ownership interest and Exhibit 21 to Cabot's Form 10-K for a list of Cabot's subsidiaries.												
102-46	Defining report content and topic boundaries	p. 6												
102-47	List of material topics	p. 6												
102-48	Restatements of information	There were no restatements of historical financial data from fiscal year 2018; however, due to a revised approach to classifying Tier 1 and Tier 2 process safety events, historical data was updated accordingly (refer to p. 29). 2017 SO <sub>2</sub> emissions data for one site was restated in 2018 to reflect the actual data rather than an estimate. The restated values differing by more than 1% from what was previously reported are summarized below. <table border="1"> <thead> <tr> <th>2017 Metric</th> <th>Previously Reported</th> <th>Corrected Value</th> <th>% Change</th> </tr> </thead> <tbody> <tr> <td>SO<sub>2</sub> Emissions (KMT)</td> <td>42.2</td> <td>43.2</td> <td>2.4%</td> </tr> <tr> <td>SO<sub>2</sub> Emissions Intensity (MT/KMT) production</td> <td>20.2</td> <td>20.7</td> <td>2.5%</td> </tr> </tbody> </table>	2017 Metric	Previously Reported	Corrected Value	% Change	SO <sub>2</sub> Emissions (KMT)	42.2	43.2	2.4%	SO <sub>2</sub> Emissions Intensity (MT/KMT) production	20.2	20.7	2.5%
2017 Metric	Previously Reported	Corrected Value	% Change											
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SO <sub>2</sub> Emissions Intensity (MT/KMT) production	20.2	20.7	2.5%											
102-49	Changes in reporting	p. 6												
102-50	Reporting period	p. 6												
102-51	Date of most recent report	p. 6												
102-52	Reporting cycle	p. 6												
102-53	Contact point for questions regarding the report	Inquiries or comments concerning the content of this report may be directed to <a href="mailto:sustainability@cabotcorp.com">sustainability@cabotcorp.com</a> .												
102-54	Claims of reporting in accordance with the GRI Standards	p. 6												
102-55	GRI Content Index	This complete GRI Content Index meets the intent and format required by the GRI Standards.												
102-56	External assurance	p. 6												

## MATERIAL TOPICS – BUILDING A BETTER FUTURE TOGETHER

### Economic Performance

#### GRI 103: Management Approach 2016

Disclosure Number	Disclosure Title	Page Number / Response
103-1	Explanation of the material topic and its boundaries	pp. 8, 13
103-2	The management approach and its components	pp. 13-14
103-3	Evaluation of the management approach	pp. 13-14

#### GRI 201: Economic Performance 2016

Disclosure Number	Disclosure Title	Page Number / Response
201-1	Direct economic value generated and distributed	p. 14 For additional information, refer to Cabot's 2018 Annual Report on Form 10-K ( <a href="http://cabotcorp.com/2018annualreport">cabotcorp.com/2018annualreport</a> ).
201-2	Financial implications and other risks and opportunities for the organization's activities due to climate change	p. 14 For additional information, refer to Cabot's 2018 Carbon Disclosure Project filing ( <a href="http://cdp.net">cdp.net</a> ).

### Product Sustainability

#### GRI 103: Management Approach 2016

Disclosure Number	Disclosure Title	Page Number / Response
103-1	Explanation of the material topic and its boundaries	pp. 8, 15 Product health, safety and environmental impacts occur primarily downstream from Cabot's operations through the activities of our customers and in some cases through end use by consumers.
103-2	The management approach and its components	p. 15
103-3	Evaluation of the management approach	p. 15

#### GRI 416: Customer Health and Safety 2016

Disclosure Number	Disclosure Title	Page Number / Response
416-1	Assessment of the health and safety impacts of product and service categories	pp. 15-16 100% of significant product categories are assessed for health and safety impacts using the best available information.



MATERIAL TOPICS – BUILDING A BETTER FUTURE TOGETHER *continued*

## Suppliers' Sustainability

**GRI 103: Management Approach 2016**

Disclosure Number	Disclosure Title	Page Number / Response
<b>103-1</b>	Explanation of the material topic and its boundaries	pp. 8, 16
<b>103-2</b>	The management approach and its components	p. 16
<b>103-3</b>	Evaluation of the management approach	p. 16

**GRI 308: Supplier Environmental Assessment 2016**

Disclosure Number	Disclosure Title	Page Number / Response
<b>308-2</b>	Negative environmental impacts in the supply chain and actions taken	p. 17 With supplier sustainability as a newer area of focus, 2018 was used to pilot an audit program to evaluate suppliers on their sustainability performance including environmental impacts. In cases where audits uncovered areas for improvement, corrective actions were taken accordingly.

**GRI 414: Supplier Social Assessment 2016**

Disclosure Number	Disclosure Title	Page Number / Response
<b>414-2</b>	Negative social impacts in the supply chain and actions taken	p. 17 With supplier sustainability as a newer area of focus, 2018 was used to pilot an audit program to evaluate suppliers on their sustainability performance including social impacts. In cases where audits uncovered areas for improvement, corrective actions were taken accordingly.

## MATERIAL TOPICS – ACTING RESPONSIBLY FOR THE PLANET

### Environmental Compliance

#### GRI 103: Management Approach 2016

Disclosure Number	Disclosure Title	Page Number / Response
103-1	Explanation of the material topic and its boundaries	pp. 8, 10
103-2	The management approach and its components	pp. 19-20
103-3	Evaluation of the management approach	pp. 19-20

#### GRI 307: Environmental Compliance 2016

Disclosure Number	Disclosure Title	Page Number / Response
307-1	Non-compliance with environmental laws and regulations	p. 20 Adhering to local environmental laws and regulations is the responsibility of facility general managers as well as site environmental managers located at each facility. In support of compliance efforts, resources include a robust database to track near-miss and ENC events and corrective actions, as well as over \$44.6MM in capital spending in FY 2018 that was dedicated to improving facilities and reducing ENCs.

### Energy

#### GRI 103: Management Approach 2016

Disclosure Number	Disclosure Title	Page Number / Response
103-1	Explanation of the material topic and its boundaries	pp. 8, 19-20
103-2	The management approach and its components	p. 20
103-3	Evaluation of the management approach	p. 20

#### GRI 302: Energy 2016

Disclosure Number	Disclosure Title	Page Number / Response
302-1	Energy consumption within the organization	p. 21 For more information about our energy and fuel sources, refer to our response to the CDP Climate Change Questionnaire ( <a href="http://cdp.net">cdp.net</a> ).
302-3	Energy intensity	p. 21 Energy consumption includes all forms of energy consumed by facilities under Cabot's operational control and excludes energy sold to third parties.

MATERIAL TOPICS – ACTING RESPONSIBLY FOR THE PLANET *continued*

## Air Pollutants / GHG

**GRI 103: Management Approach 2016**

Disclosure Number	Disclosure Title	Page Number / Response
<b>103-1</b>	Explanation of the material topic and its boundaries	pp. 8, 19, 22
<b>103-2</b>	The management approach and its components	p. 22
<b>103-3</b>	Evaluation of the management approach	p. 22

**GRI 305: Emissions 2016**

Disclosure Number	Disclosure Title	Page Number / Response
<b>305-1</b>	Direct (Scope 1) GHG emissions	pp. 22-23 Our greenhouse gas calculations were completed in accordance with <i>The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standards (Revised Edition)</i> , drawing guidance from the <i>IPCC Guidelines for National Greenhouse Gas Inventories – 2006</i> and <i>The Climate Registry: General Reporting Protocol</i> . Emissions were calculated using the operational control approach and IPCC Second Assessment Report 100-year global warming potentials, and included emissions of CO <sub>2</sub> , CH <sub>4</sub> and N <sub>2</sub> O. We maintain databases that track monthly usage volumes of feedstock materials and fossil fuels, as well as production volume. Our 2017 and 2018 GHG emissions were verified in alignment with the principles of the <i>International Standard on Assurance Engagements ISAE 3000 (Revised)</i> under a Limited Level of Assurance by ERM CVS.
<b>305-2</b>	Indirect (Scope 2) GHG emissions	pp. 22-23 See Disclosure 305-1 in the GRI Content Index for a description of GHG monitoring methods.
<b>305-4</b>	GHG emissions intensity	pp. 22-23 GHG intensity is calculated as MT CO <sub>2</sub> e emissions/MT of product. The intensity of our GHG emissions is calculated for all Scope 1 and 2 emissions produced by facilities under Cabot's operational control, as reported under Disclosures 305-1 and 305-2.
<b>305-7</b>	Nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ) and other significant air emissions	pp. 22-23 Data reported has been calculated using actual test measurements based on country-specific or U.S. EPA methods, Cabot engineering estimates, or similar emission factors.

## Waste &amp; Spills

**GRI 103: Management Approach 2016**

Disclosure Number	Disclosure Title	Page Number / Response
<b>103-1</b>	Explanation of the material topic and its boundaries	pp. 8, 19, 23
<b>103-2</b>	The management approach and its components	p. 23
<b>103-3</b>	Evaluation of the management approach	p. 23

MATERIAL TOPICS – ACTING RESPONSIBLY FOR THE PLANET *continued*

## Waste &amp; Spills

**GRI 306: Effluents and Waste 2016**

Disclosure Number	Disclosure Title	Page Number / Response																					
<b>306-2</b>	Waste by type and disposal method	pp. 23-24 More than a third of nonhazardous waste generated is recycled or reused, and the majority of hazardous waste is generated at one location and disposed of via on-site deep well injection.																					
		<table border="1"> <thead> <tr> <th>2018 Disposal Methods</th> <th>Nonhazardous Waste</th> <th>Hazardous Waste</th> </tr> </thead> <tbody> <tr> <td>Reused or recycled</td> <td>36.7%</td> <td>0.6%</td> </tr> <tr> <td>Incinerated with energy recovery</td> <td>7.4%</td> <td>0.6%</td> </tr> <tr> <td>Incinerated without energy recovery</td> <td>0.4%</td> <td>0.2%</td> </tr> <tr> <td>Deep well injection</td> <td>0.0%</td> <td>98.4%</td> </tr> <tr> <td>Landfilled</td> <td>54.5%</td> <td>0.2%</td> </tr> <tr> <td>Other</td> <td>1.0%</td> <td>0.0%</td> </tr> </tbody> </table>	2018 Disposal Methods	Nonhazardous Waste	Hazardous Waste	Reused or recycled	36.7%	0.6%	Incinerated with energy recovery	7.4%	0.6%	Incinerated without energy recovery	0.4%	0.2%	Deep well injection	0.0%	98.4%	Landfilled	54.5%	0.2%	Other	1.0%	0.0%
2018 Disposal Methods	Nonhazardous Waste	Hazardous Waste																					
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Deep well injection	0.0%	98.4%																					
Landfilled	54.5%	0.2%																					
Other	1.0%	0.0%																					
<b>306-3</b>	Total number and volume of significant spills	pp. 23-24																					

## Water

**GRI 103: Management Approach 2016**

Disclosure Number	Disclosure Title	Page Number / Response
<b>103-1</b>	Explanation of the material topic and its boundaries	pp. 8, 19, 25
<b>103-2</b>	The management approach and its components	p. 25
<b>103-3</b>	Evaluation of the management approach	p. 25

**GRI 303: Water 2016**

Disclosure Number	Disclosure Title	Page Number / Response
<b>303-1</b>	Water withdrawal by source	p. 25
<b>303-3</b>	Water recycled and reused	p. 25

**GRI 306: Effluents and Waste 2016**

Disclosure Number	Disclosure Title	Page Number / Response
<b>306-1</b>	Water discharge by quality and destination	p. 25

## MATERIAL TOPICS – CARING FOR OUR PEOPLE & COMMUNITIES

### Occupational Health & Safety

#### GRI 103: Management Approach 2016

Disclosure Number	Disclosure Title	Page Number / Response
103-1	Explanation of the material topic and its boundaries	pp. 8, 27-28
103-2	The management approach and its components	pp. 27-28
103-3	Evaluation of the management approach	pp. 27-28

#### GRI 403: Occupational Health & Safety 2016

Disclosure Number	Disclosure Title	Page Number / Response
403-1	Workers representation in formal joint management – worker health and safety committees	p. 28 The majority of our manufacturing locations, regional offices and service centers have joint health and safety committees operating at the site level and reporting to the Corporate SH&E department. These committees represent all workers and contractors.
403-2	Types of injury and rates of injury (IR), occupational diseases (ODR), lost days (LDR), absenteeism (AR), and number of work-related fatalities	p. 28 Methods for calculating each metric are provided below: <ul style="list-style-type: none"> <li>◆ <b>Total Recordable Incident Rate (TRIR):</b> Number of injuries (employees and contractors) per 200,000 work hours (~100 employees)</li> <li>◆ <b>Lost Time Incident Rate (LTIR):</b> Number of lost time injuries (employees and contractors) per 200,000 work hours (~100 employees)</li> <li>◆ <b>Severity Rate:</b> Number of lost work days (employees and contractors) per 200,000 work hours (~100 employees)</li> <li>◆ <b>Process Safety Events (PSE):</b> Defined by the Center for Chemical Process Safety as a "release of material or energy from a process that resulted in injury, fire or explosion, or release of flammable, combustible or toxic chemicals."</li> </ul>

### Employment, Diversity & Training

#### GRI 103: Management Approach 2016

Disclosure Number	Disclosure Title	Page Number / Response
103-1	Explanation of the material topic and its boundaries	pp. 8, 27, 30-31, 33
103-2	The management approach and its components	pp. 30-31, 33
103-3	Evaluation of the management approach	pp. 30-31, 33

#### GRI 401: Employment 2016

Disclosure Number	Disclosure Title	Page Number / Response
401-1	New employee hires and employee turnover	pp. 31-32
401-2	Benefits provided to full-time employees	p. 31 Benefits packages offered to employees are designed to provide employees the tools and resources needed to thrive. Specific features of these packages differ depending on location of employment but typically include healthcare, life and accidental insurances, disability, retirement and pension plans, business travel accident insurance, vacation time, holiday and leave entitlement, educational financial assistance, and access to retiree medical coverage.



**MATERIAL TOPICS – CARING FOR OUR PEOPLE & COMMUNITIES** *continued*

Employment, Diversity & Training

**GRI 404: Training and Education 2016**

Disclosure Number	Disclosure Title	Page Number / Response
404-2	Programs for upgrading employee skills and transition assistance programs	pp. 31-32 Our training programs are managed at the corporate level and on a site-by-site basis, according to the unique mix of each employee's experience and skill set, career interests, and the core business objectives of the company. Career transitioning is handled with sensitivity and commonly includes outplacement services for future employment opportunities or retirement.
404-3	Percentage of employees receiving regular performance and career development reviews	p. 32

**GRI 405: Diversity and Equal Opportunity 2016**

Disclosure Number	Disclosure Title	Page Number / Response
405-1	Diversity of governance bodies and employees	p. 30 Diversity of employees at the end of 2018: <b>By Gender:</b> ◆ Male: 77%      ◆ Female: 23% <b>By Age Group:</b> ◆ Under 30: 12%    ◆ 30-50: 58%    ◆ Over 50: 30% Diversity of the Board of Directors at the end of 2018: <b>By Gender:</b> ◆ Male: 83%      ◆ Female: 17% <b>By Age Group:</b> ◆ Under 30: 0%    ◆ 30-50: 0%      ◆ Over 50: 100%

**GRI 406: Non-discrimination 2016**

Disclosure Number	Disclosure Title	Page Number / Response
406-1	Incidents of discrimination and corrective actions taken	During 2018, we were made aware of five alleged cases of discrimination, all of which were reviewed and investigated. Three of these cases were closed. Two cases remain open and are under additional review. <b>Allegations of discrimination:</b> ◆ Total claims alleged: 5      ◆ Total claims closed: 3

Corrective Actions Taken:	Substantiated	Unsubstantiated
No Action	0	2
Policy Review	0	0
Training	0	0
Discipline	0	0
Termination	1	0

MATERIAL TOPICS – CARING FOR OUR PEOPLE & COMMUNITIES *continued*

## Community Engagement

**GRI 103: Management Approach 2016**

Disclosure Number	Disclosure Title	Page Number / Response
<b>103-1</b>	Explanation of the material topic and its boundaries	pp. 8, 27, 34
<b>103-2</b>	The management approach and its components	p. 34
<b>103-3</b>	Evaluation of the management approach	p. 34

**GRI 413: Local Communities 2016**

Disclosure Number	Disclosure Title	Page Number / Response
<b>413-1</b>	Operations with local community engagement, impact assessments, and development programs	p. 34

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