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MAKING A DIFFERENCE

SUSTAINABILITY REPORT 2018

[www.sabic.com](http://www.sabic.com)

CHEMISTRY THAT MATTERS™

# MAKING A DIFFERENCE

SUSTAINABILITY REPORT 2018

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sabic



At SABIC, we are transforming everything we do, the way we do it, and our relationships with all our stakeholders, to do an ever better job of helping make tomorrow's world better than today's. It's what we call 'Chemistry that Matters™'.

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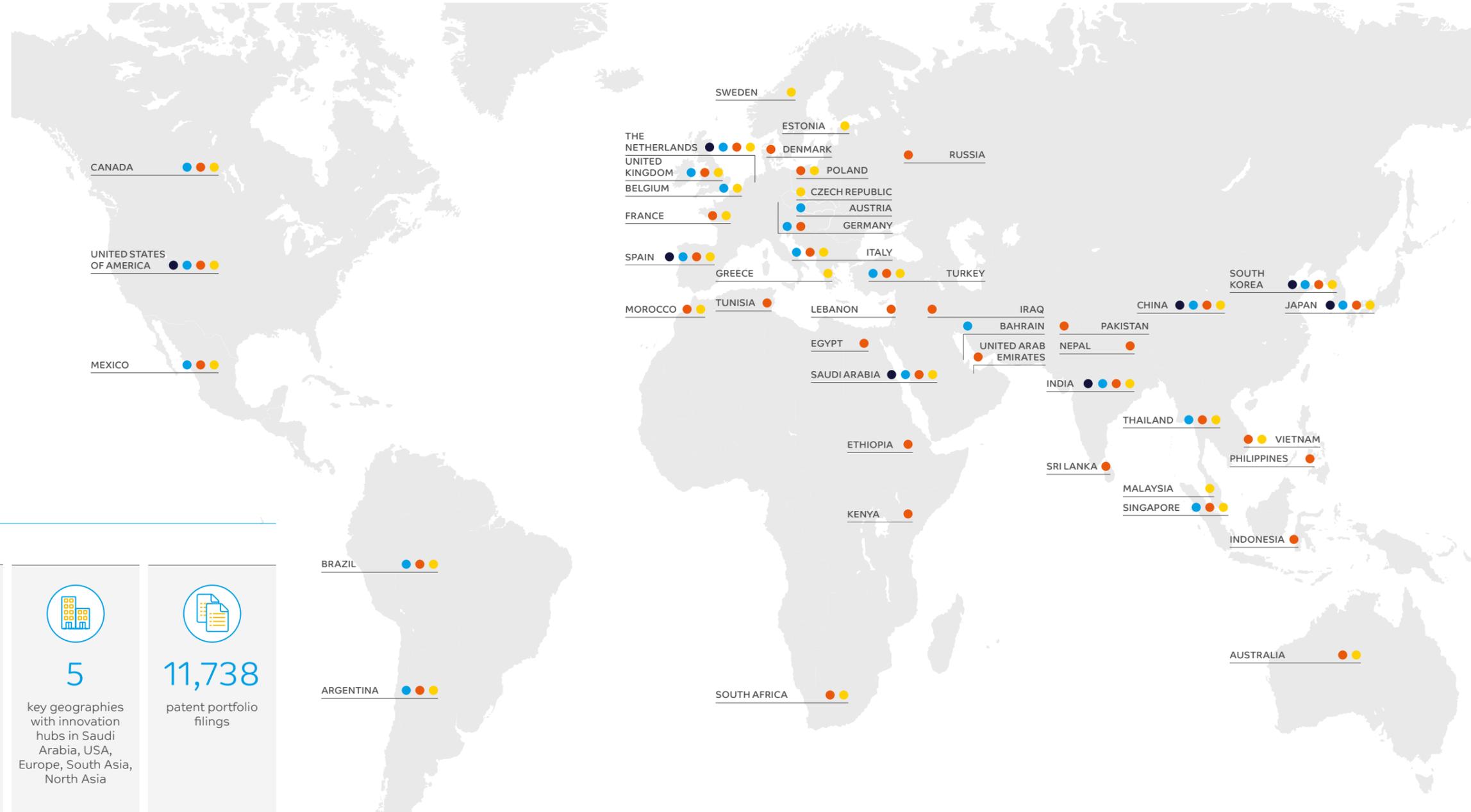
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# CONTENTS

		Overview	02
		Chairman's welcome	04
		Vice Chairman and CEO's statement	06
<hr/>			
Page <b>08</b>		<b>ABOUT SABIC</b>	
Sustainability is a foundational element of SABIC's strategy		Strategy	10
		Materiality	12
		Looking forward	14
		Engagement and collaboration	16
		Ethics and compliance	20
		Sustainability governance	22
		Performance summary	23
<hr/>			
	Page <b>24</b>	<b>INNOVATION AND SUSTAINABILITY SOLUTIONS</b>	
Improving sustainability performance through innovation		Our approach	26
		Our performance	27
		Inventing and improving processes	28
		Collaboration	29
		Key markets	30
		Looking forward	34
<hr/>			
Page <b>36</b>		<b>RESOURCE AND ENERGY EFFICIENCY</b>	
Strong emphasis on resource and energy efficiency		Our approach	38
		Our performance	39
		Greenhouse gas	40
		Energy	42
		Water	43
		Material loss	44
		Looking forward	45
<hr/>			
	Page <b>46</b>	<b>EHSS AND PRODUCT SAFETY</b>	
A culture of constant EHSS improvement		Our approach	48
		Our performance	49
		Culture of continuous improvement	50
		Risk and emergency response management	52
		Product stewardship	54
		Looking forward	57
<hr/>			
Page <b>58</b>		<b>HUMAN CAPITAL DEVELOPMENT</b>	
Helping employees to succeed		Our approach and performance	60
		Our workforce	62
		Diversity, inclusion and collaboration	65
		Looking forward	67
<hr/>			
	Page <b>68</b>	<b>SUPPLY CHAIN AND PROCUREMENT</b>	
Committed to environmentally friendly supply chain		Our approach	70
		Our performance	71
		Sustainable supply chains	72
		Sustainable procurement	76
		Looking forward	77
<hr/>			
Page <b>78</b>		<b>SOCIAL IMPACTS AND COMMUNITY RELATIONSHIPS</b>	
SABIC serves communities through its CSR programs		Our approach	80
		Our performance	81
		CSR priority area highlights	82
		Looking forward	87
<hr/>			
	Page <b>88</b>	<b>ADDENDUM</b>	
		About this report	90
		Assurance report of the independent auditor	91

# OVERVIEW

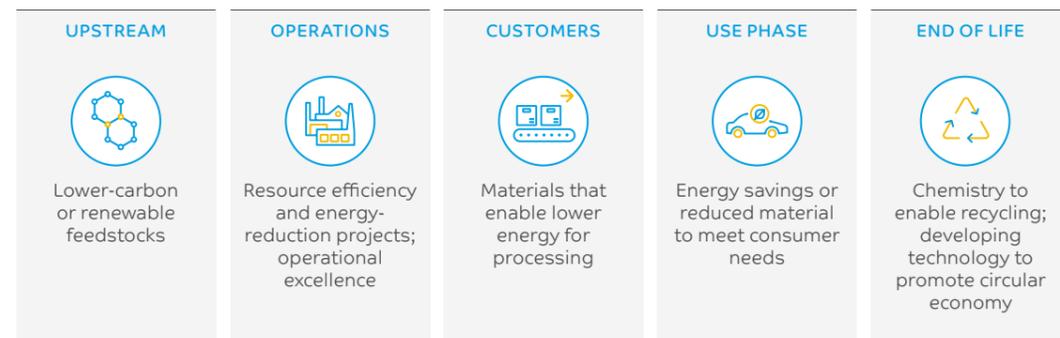
- Technology and application facilities ●
- Manufacturing and compounding companies ●
- International subsidiaries and sales offices ●
- Distribution, storage facilities and logistical hubs ●



## THIS IS SABIC



## SUSTAINABILITY IN OUR VALUE CHAIN



## OUR CORE MARKETS



## CHAIRMAN'S WELCOME



**DR. ABDULAZIZ  
SALEH ALJARBOU**

Chairman

This year, we emerged as a “New SABIC” after a transformation process that strengthened our financial performance, growth, and competitiveness. While this process is still underway, it has moved us toward our goal of becoming the world’s preferred supplier of chemicals by 2025, and improved our ability to be a key enabler of Saudi Vision 2030 – the country’s ambitious plan to become more economically diverse and resilient to cyclical energy prices.

Our focus on sustainability has helped to guide this transformation by ensuring that short-term growth goes hand in hand with long-term benefits to the environment, the economy, and society as a whole. Sustainability does this by guiding our strategic decisions to emphasize technological innovation; resource and energy efficiency; human capital; the environment, health, safety, and security; and social responsibility. As a result, we have increased profits while advancing our reputation as a collaborative organization that puts customers at the heart of decision making.

Our top priorities in 2018 included adopting sustainability as our guiding light in product and process innovation; providing materials for deploying renewable energy as part of our energy mix; continuing to minimize our carbon intensity; and embedding circular economy solutions throughout the value chain. Sustainable innovation and growth require talent, and we further invested in this core need by promoting employment opportunities and improving our workforce through training, development, and leadership programs. This type of investment in our people will continue to structurally improve our performance and accelerate our efforts to transform.

SABIC’s portfolio of sustainability solutions – those that create less CO<sub>2</sub> than traditional materials during production or save more in other phases of their lifecycles – continued to drive our innovation this year. These solutions are the result of innovative research and intense collaboration with customers and experts in academia. To produce them, we must

have a deep understanding of customer needs, and be responsive, agile, and innovative enough to create the solutions that can enable them to grow while meeting their sustainability goals through ‘Chemistry that Matters™’.

A high priority for SABIC this year was supporting global climate negotiations. SABIC joined a high-level delegation from Saudi Arabia to the United Nations’ Conference of Parties (COP24) in Katowice, Poland, in December. There, we presented our range of innovative solutions for sustainable development at the Gulf Cooperation Council pavilion. Promoting Saudi Arabia’s sustainability agenda is one of the most important contributions we can make to the successful achievement of Saudi Vision 2030.

Another important and growing priority for SABIC is maximizing societal benefits from our natural resources. We do this through a commitment to the circular economy by adapting our processes to re-manufacturing and recycling, and designing products and solutions for longer life and reuse, minimizing leakage to oceans and the environment. We are committed to scaling up high-quality recycling processes for chemical recycling of mixed plastic waste back to chemicals or other plastics, and this year, we announced our intent to build a commercial plant in the Netherlands to refine a valuable feedstock from recycled mixed plastic waste otherwise destined for incineration or landfill. We are the first chemicals company to implement such a project – a statement of our intent to lead in the promotion of a circular economy.

As one of the largest diversified chemicals companies in the world – the third largest, according to Forbes in 2018 – with operations in more than 50 countries, we are well-placed to have a positive impact on the communities where we operate. In previous years, we streamlined our social responsibility and increased its impact by implementing the global RAISE strategy. RAISE promotes employee volunteering and helps to create a culture of giving in four key areas: science and technology education, environmental protection, health and wellness, and water and sustainable agriculture. This year, employee volunteers all over the world made important contributions to their local communities in each of these areas.

This year, we announced our intent to build a commercial plant in the Netherlands to refine a valuable feedstock from recycled mixed plastic waste otherwise destined for incineration or landfill. We are the first chemicals company to implement such a project.

Efforts such as this have strengthened our brand. SABIC was recognized as the fastest growing chemical brand of 2018 and has reached the third place overall according to Brand Finance’s “Chemicals 10,” an annual report on the world’s most valuable brands in the chemical industry.

Since 2015, when SABIC candidly assessed how it had to transform to compete at the highest level, we have come a long way. But there is much further to go. Many external challenges to our industry – such as oil prices, petrochemicals demand, trade protectionism, and changing regulations, to name a few – will always exist and be beyond our control. To succeed in this challenging environment, we must be open to new ideas and focus on the things we have the power to control.

Sustainability is one of those areas – and one where we have made considerable progress. For us, sustainability is not an exercise in public relations, it is a strategy to maximize the benefit we bring to all of our internal and external stakeholders. I would like to thank all of SABIC’s employees. Without their commitment to our program, our sustainability strategy would be meaningless. As one united team, we can continue to deliver the benefits of more innovative chemicals and specialty products to customers in diverse industries globally – and multiply the benefit we bring to the world.

## VICE CHAIRMAN AND CEO'S STATEMENT



### YUSEF ABDULLAH AL-BENYAN

Vice-Chairman and  
Chief Executive Officer

This year has been a very positive one for SABIC – a year when we began benefitting from our ongoing transformation into a company with an internal structure that is even better prepared to compete at the highest level in the chemicals industry. We have taken great strides toward our ambition of becoming the world's preferred supplier of chemicals by continuing to embrace "Chemistry that Matters™" to benefit of our customers.

Sustainability, which is a foundational element of our corporate strategy, has been crucial to this journey from a "Global Challenger" to a "Global Leader" – as reclassified by the Boston Consulting Group this year. Sustainability guides our allocation of resources to address global trends. Through it, we identify opportunities, reduce risks, inspire change, and improve resilience to a changing business climate. In addition, the increased transparency enabled by our sustainability reporting, which has been recognized by the World Business Council for Sustainable Development, makes us a more attractive investment in the opening Saudi stock exchange.

This year, the accelerated pace of change, disruptive technologies – those that completely change the industry landscape – and new digital solutions across the value chain continued to challenge traditional business models. Success in such an environment requires an agile structure and a focused product portfolio that can compete for global growth. SABIC's shift from six Strategic Business Units in 2015 to only two in 2018 have helped us to adjust, but these internal changes must be supported by sustainability-driven innovation for improved processes and economic performance, reduced climate impacts, and faster product creation.

In an ever-changing global business environment, we were determined to ensure that we were allocating our resources to the appropriate areas, consistent with our 2025 strategy. We undertook a refresh of

our materiality process to ensure that we focus on the risks and opportunities that are most important to our stakeholders and business success. We received inputs from internal and external stakeholders, who we considered our strategic priorities. We also engaged with external initiatives such as the United Nations' Sustainable Development Goals and Saudi Vision 2030. Subsequently, we applied an evidence-based approach to determine the most relevant priorities for SABIC to tackle over the next five years. These priorities were resource efficiency, climate and energy, governance and integrity, circular economy, EHSS, and innovation and sustainability solutions. At the same time, we are continuing to make further improvements in key areas, such as social responsibility and supply chain.

In addition to the many downstream benefits SABIC brings to the economy – including employment, spread of global best practice, and business opportunities for supporting industries, to name a few – we strive for partnerships and engagement.

This year, SABIC was part of a Saudi Arabian delegation, led by the Ministry of Economy and Planning, to the High-level Political Forum (HLPF) on Sustainable Development at the UN headquarters in New York. We represented the Saudi private sector during the "Voluntary National Review" of Saudi Arabia's sustainability efforts, as well as being one of the main participants in the "Energy in KSA" side event.

The circular economy – the idea that using renewables, conserving finite resources, and reducing waste by recycling, repurposing, and reusing materials is beneficial for both business and the environment – gained traction in 2018. Keeping plastics in the material stream and out of the environment is desirable because it reduces resource demand and carbon emissions, and prevents impact from waste in the environment.

Chemicals producers can benefit from the concept through innovation and design for circularity. I am happy to report that after studying this concept for years, SABIC is well-placed to lead in this field. We continued to progress this year through initiatives such moving toward a collaboration with Plastic Energy for a plant that will turn low-quality, mixed-plastic waste into valuable feedstock for our European operations.

We were also delighted to join the Alliance to End Plastic Waste, which is bringing the public and private sectors together to overcome this global challenge. Through prevention, clean-up, innovation, education, and communication, we will help to ensure that the environment is not negatively impacted by materials that bring enormous benefit to society.

Sustainability guides our allocation of resources to address global trends. Through it, we identify opportunities, reduce risks, inspire change, and improve resilience to a changing business climate.

Climate change continues to be a major concern for society. As a result, there is increasing pressure to reduce carbon impacts through sustainable manufacturing and material innovation. SABIC recognizes the fundamental importance of natural resources to our operations, and we constantly strive to become resource and energy efficient. This year, we approved our Renewable Energy Strategy to procure renewable energy as part of our energy mix, to help achieve our goals of reducing our greenhouse-gas, energy, and water intensities by 25 percent, and our material-loss intensity by 50 percent, from levels in 2010.

Central to our sustainability program – and at the heart of SABIC's DNA – is environment, health, safety, and security (EHSS). Protecting our employees, contractors, customers, and communities is a core value that will never change. SABIC's people are the fertile soil that will enable our organization to grow. This year, our SABIC Leadership Awareness Initiative enabled over 600 leaders from over 50 sites to undertake courses to strengthen their global leadership skills. And our new Employee Value Proposition will ensure that all employees are aware of the opportunities available to them to increase their skill sets.

Sustainability helps us to address many of the major challenges that lie ahead, such as strengthening our ability to raise capital as a transparent and trusted organization, improving our business resilience by accessing and addressing risks, and taking advantage of global trends through swift and decisive development of new products. In 2018, we made progress on these fronts and many others too. I would like to thank all of our stakeholders for their contributions and urge them to continue to this important work during the challenging times ahead.

# ABOUT SABIC

STRATEGY	10
MATERIALITY	12
LOOKING FORWARD	14
ENGAGEMENT AND COLLABORATION	16
ETHICS AND COMPLIANCE	20
SUSTAINABILITY GOVERNANCE	22
PERFORMANCE SUMMARY	23



# STRATEGY

SABIC's ambition is to be the preferred world leader in chemicals, and sustainability is a foundational element of the strategy to achieve that goal. Sustainability helps us to understand and adapt to long-term trends and expectations in society, impacting our financial performance by the introduction of efficiencies that reduce operating costs and innovative sustainability product solutions that help to grow the bottom line. SABIC's sustainability strategy is executed through a target-oriented approach, and supported by a comprehensive internal-governance structure.

It is critical to have strong collaboration with internal and external stakeholders, including our customers, in order to understand their evolving needs, and translate their challenges into opportunities. Seeking and strengthening partnerships continues to grow in importance, leading to much more transformational change in the decades to come. Value chains – the full range of activities that bring products or services to the market – are transforming as we speak, and it is our ambition to be a leader in building business value through value chain collaborations.

SABIC is a global chemicals company with a strong growth agenda based on product and feedstock diversification. Growth creates business risks in areas such as global plastic waste, the circular economy, clean energy, infrastructure, transportation, healthcare, and geographical connectivity. It creates opportunities in these areas too. Since 2009, our sustainability program has helped us to navigate through this landscape by consistently improve our operational performance, to identify challenges that are becoming more transformational, and to foster a collaborative approach that is necessary to accelerate positive change.

We continue to build strategic initiatives in key areas that are most material for the company – those with the most significant impact to our business and stakeholders. To maximize value, our efforts and reporting focus strongly on the top five materiality topics. Over time, changing global markets and mega-trends in the wider society can require updates to our material priorities. An agile business approach has enabled us to act on increasing interest in the circular economy, information demands from financial stakeholders, concern about plastic waste, and climate action.

Our materiality process, which determines strategic priorities, was refreshed in 2018, resulting in six core priorities and nine new areas to drive business progress. Focusing on these areas will help us to drive performance and transform our company to thrive in tomorrow's world.

Our business both depends on and impacts four key financial and non-financial types of capital: economic, natural, social, and human. We consider each of these capitals strategically, including their effects on the company and its stakeholders, to maximize sustainability's business value.

As a company that manufactures materials, our strategy includes a desire to keep carbon within the materials value chain, and we are taking leading action on chemical recycling, an important circular economy opportunity. Actions that incorporate the concepts of the circular economy improve material efficiency – decreasing the quantity of material required to meet society's need – both internally and in our product value chain. In addition, building on our "solution space" of products, many of which lead to carbon-emission savings throughout their life cycles, will help to enable a sustainable world while satisfying customers and increasing profitability.

Climate change action impacts our process operations, with a focus on carbon dioxide emissions, energy intensity, and renewable energy. Growth risk for mega-projects is mitigated by embedding sustainability criteria into every project stage-gate. The continued drive towards resource efficiency and health and safety will decrease costs in our operations. And governance and integrity will create maximum long-term value for stakeholders.

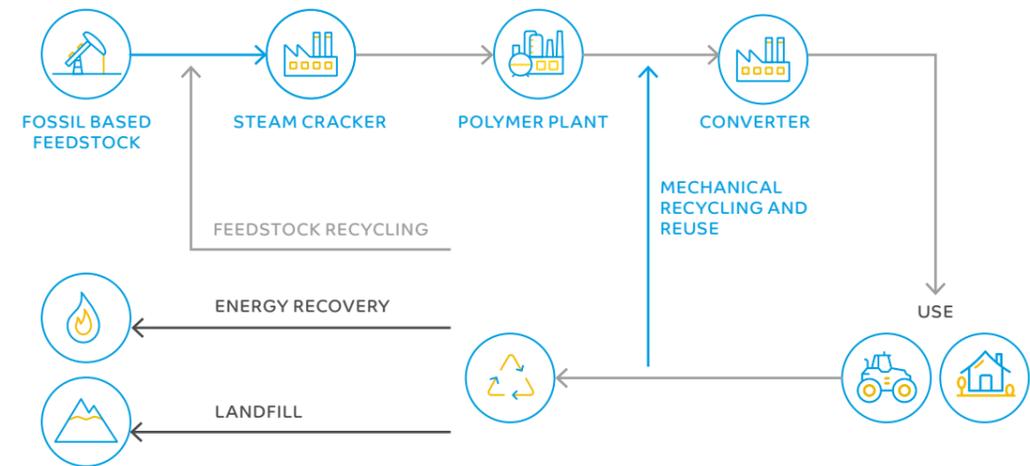
SABIC has embraced the United Nations' Sustainable Development Goals (SDGs), and assessed those which we can impact the most, linking these goals to our company-wide sustainability approach. Our projected growth will bring economic advancement and decent jobs to our key markets; our Agri-Nutrients business provides innovative solutions that increase the global food supply and decrease hunger; and our water-management solutions help customers to provide reliable and clean water supplies.

In the face of a volatile business climate, SABIC is becoming more agile and cost efficient – and better prepared for transformational changes. This development requires unprecedented levels of cooperation and collaboration, including potential mergers and acquisitions. The transition of the Saudi stock exchange, Tadawul, enables our stock to be traded more extensively globally, offering us

access to a wider range of investors while increasing our global visibility. As a result, increased investor expectations around sustainability have influenced our reporting. To meet stakeholder needs, we have designed our sustainability efforts to identify opportunities, reduce risks, and improve resilience to a changing business climate – with the overall result of inspiring our company's transformation.

## PLASTIC WASTE TO FEEDSTOCK FOR CHEMICALS

SABIC is committed to scale up high-quality recycling processes for chemical recycling of mixed plastic waste back to chemicals or plastics



Chemical recycling saves fossil resources, turns waste into a valuable product and is an opportunity to strengthen SABIC's sustainability by establishing a circular economy.

### CASE STUDY

#### TURNING PLASTIC WASTE TO FEEDSTOCK

Supporting the growth and development of a circular economy, one in which products and raw materials are not wasted, but rather used to create new, valuable products, is a key goal of SABIC's sustainability platform. In 2018, we took a significant step forward in our circular economy work by launching a partnership with the UK-based company PLASTIC ENERGY.

Together, we will build a plant in the Netherlands to convert low-quality mixed-plastics waste – which would otherwise be destined for landfill or

incineration for energy – into a feedstock for our steam crackers. We expect commercial production to begin in 2021.

This marks the first such partnership in the chemical industry, and underscores SABIC's commitment to innovative and sustainable technologies. It is a testament to our commitment to scale up advanced chemical-recycling processes of plastics back to the original polymer and grow the circular economy.

# MATERIALITY

SABIC’s sustainability strategy is guided by a materiality analysis to ensure that resources target the most important issues for our stakeholders and business success.

This year, we undertook a comprehensive refresh of our 2013 materiality process, applying an evidence-based approach to determine the most relevant priorities for SABIC to tackle in the next five years.

### 2018 MATERIALITY REFRESH

The materiality refresh undertaken this year built upon the 2013 qualitative approach by using evidence to challenge historical priorities. To do this, we took a broad look at internal and external stakeholder needs, major trends, benchmarks, and relative business impacts to determine the most relevant priorities for SABIC in the next five years. We considered all three dimensions of sustainability – economic, social, and environmental – and began the process with a broad look at the major global reporting guidelines and indices, giving attention to sector priorities.

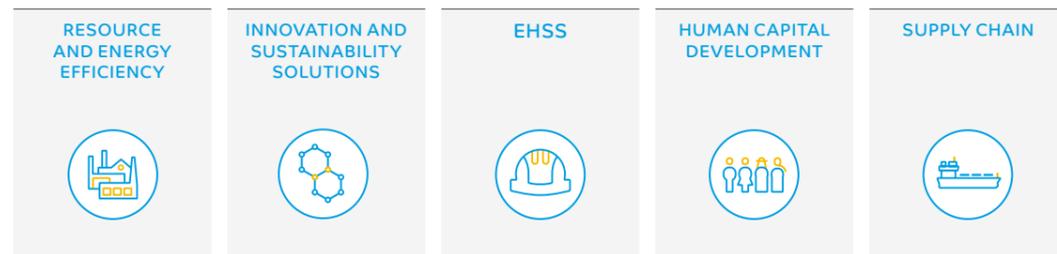
The enhanced materiality process followed in this refresh was evidence-based and quantitative where possible. Involving SABIC’s internal functions and businesses in this process led to support for setting step-change targets.

External priorities were determined through a review of chemical-sector reporting; environmental-, social-, and governance-rating priorities; accelerating trends that impact our business; regional stakeholder priorities; and external expertise. We found that large global chemical companies are in reasonable alignment on the top external priorities, which validated our benchmark approach. The initial list of internal priorities started with a review of the 2013 materiality results, Sustainable Development Goals focus areas, and internal expertise. These processes narrowed the broad list of over 100 topics to the top 10 for more in-depth study.

The next step was a deep dive into the top-10 priority areas, considering both financial and non-financial impacts as evidence for relevance and value, and the need to drive significant change. The process helped to build human capital across the company by the formation of 10 cross-regional and cross-functional deep-dive teams that were sponsored by members of the Sustainability Steering Committee.

The teams were supported by evidence from three lenses.

### SABIC’S MOST MATERIAL SUSTAINABILITY ISSUES



### IMPRESSIVE YEAR-ON-YEAR GROWTH

NET INCOME (US\$ bn)	SALES (US\$ bn)	ASSETS (US\$ bn)
5.7 2017: 4.9bn	45 2017: 40.1bn	85 2017: 86bn

The first lens assessed our performance compared to over 90 global chemical companies that report to CDP – formerly known as the Carbon Disclosure Project, which runs a disclosure system to help manage environmental impacts – and the Bloomberg news agency. The assessment used 2017 data and included a review of climate risks, opportunities, performance, actions, and business impacts.

The second involved a deep dive into the United Nations’ Sustainable Development Goals, using external expertise to consider the impact of the goals in areas where SABIC operates. We considered areas with the highest potential to impact sustainable development, risks to SABIC’s business if the SDGs are not met, and cross checked with our top internal SDG priorities that had been developed by a global team of internal experts.

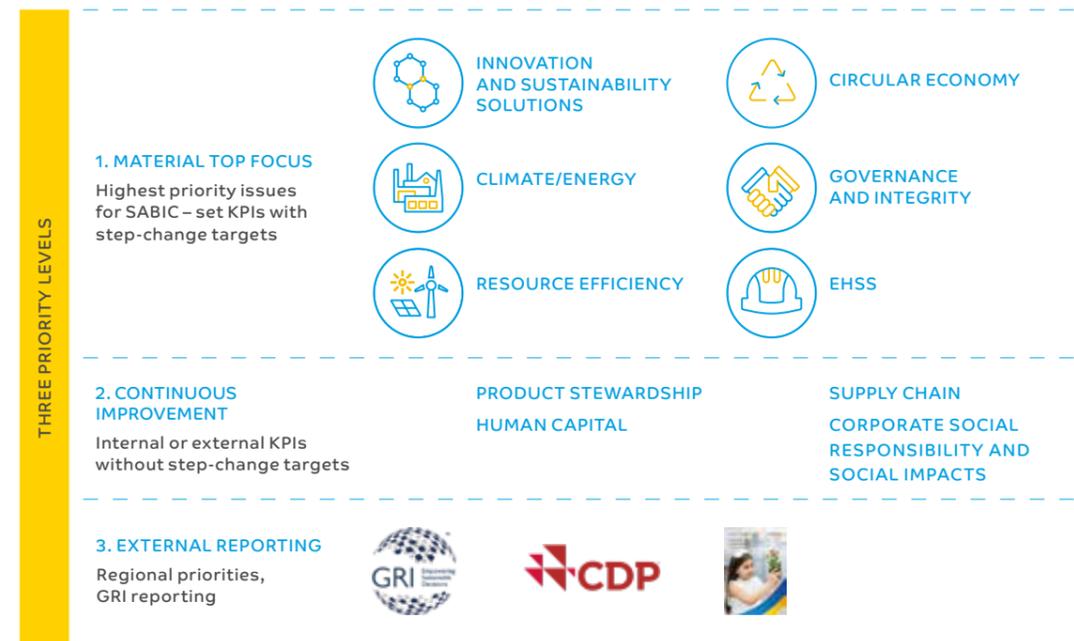
The third lens mapped pathways to show the cause-and-effect relationships between issues and their associated impacts, noting drivers that might result in changes to our business and the resulting material outcomes. The process considered both opportunities and risks. The pathways were supported by evidence such as regulation, governmental programs, and country-specific issues in areas where SABIC has significant operations.

At the end of this thorough review, the global teams determined if their topics were of sufficient relevance to meet our decision criteria, and if so, created a list of recommended step-change key performance indicators (KPIs) to be reviewed and approved by the Sustainability Steering Committee sponsor. The final process output includes six core materiality areas and nine new areas for developing step-change targets. After gaining alignment in the Steering Committee, the results were presented to and approved by the Sustainability Council. Our next step is to present the results of the materiality refresh to SABIC’s Board of Directors.

### MATERIALITY CHANGES FOR 2019

With materiality limited to the areas of highest importance, supply chain, human capital, and product stewardship shifted to the continuous improvement category, partially as a result of maturing programs that meet business needs. The materiality results reflect increasing pressure and opportunities in regard to climate and circular economy, and these areas are expected to drive transformational shifts in the chemical industry. The underlying key performance indicators will target opportunities in areas such as renewable energy and circular plastics while reducing impacts through waste and flaring. The more targeted KPIs resulting from the process will drive our sustainability forward in the coming years.

### MATERIALITY FOR SUSTAINABILITY PRIORITIES (2019-2023)



# LOOKING FORWARD

A Steering Committee champion will lead the execution of each materiality priority, developing the step-change goals with strong protocols, data collection, and tracking.

The materiality priorities will flow down to all businesses and functions for incorporation into strategies, and our four operating regions will embed the materiality priorities while taking into account unique opportunities and issues in their operational areas. Tracking targets and approval for key actions will follow the governance structure, with key decision-making from the Sustainability Council.

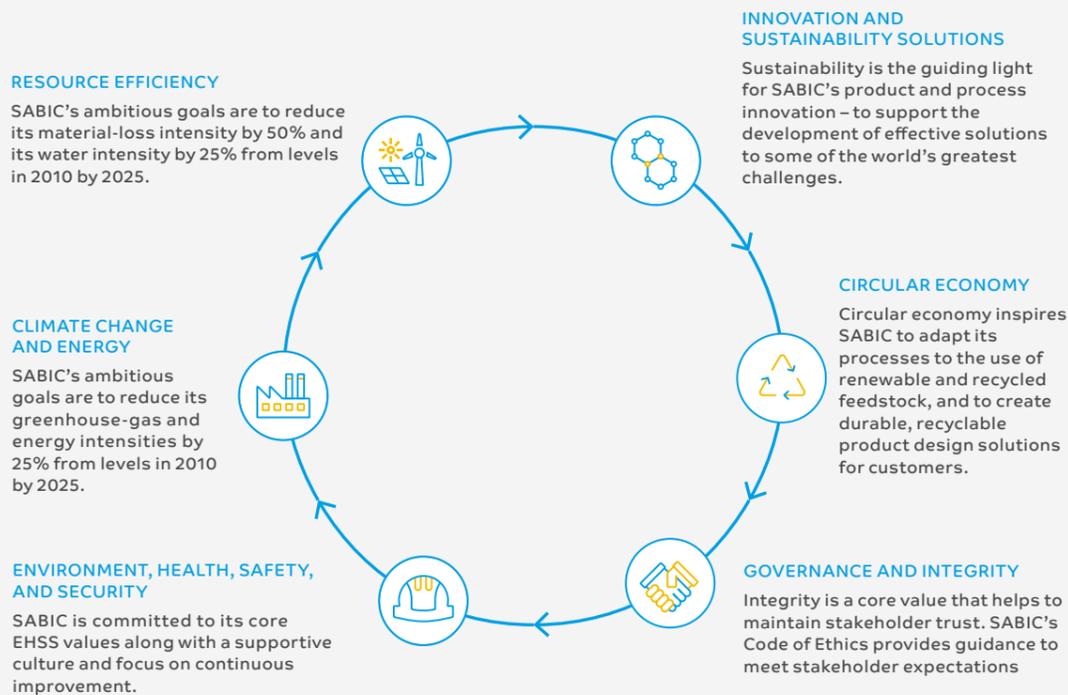
## SUSTAINABLE DEVELOPMENT GOALS ROADMAP

The United Nations in 2015 adopted the Sustainable Development Goals (SDGs): 17 goals, underlined by 169 targets, to be met by 2030. Together, they form the blueprint to address the world's shared challenges, including poverty, inequality, climate change, environmental degradation, prosperity, and peace and justice.

To achieve these ambitions, governments, non-governmental organizations, and the private sector need to collaborate extensively, and world-leading companies like SABIC can help by creating opportunities and attracting new investment for sustainable and responsible development. The SDGs help companies use their expertise and resources to build economic growth that addresses social and environmental needs. They are also a way for companies to make a strong public commitment to sustainable development and demonstrate to stakeholders' true contributions to these shared goals.

SABIC's SDG journey began in 2016, and we have embraced the goals as fundamental to our continued success. This has led us to identify those most relevant to our business, audit our value chains, and conduct benchmarking, monitoring, and reporting. As a result, we have identified the 10 SDGs most connected to our business where we can make the greatest impact:

## MATERIALITY LINKS TO SDGS



\* Baseline is year 2010 / Retain intensity targets 2010-2025 based on external Sales

## SDG ROADMAP

### UNITED NATIONS GLOBAL COMPACT COMMITMENT

Our commitment to the health and sustainability of our communities is expressed at the global level by our recognition of the ten principles of the United Nations Global Compact (UNGC) and its 17 Sustainable Development Goals. Again this year, we reaffirmed our UNGC commitment and identified the Sustainable Development Goals most relevant to our business where we can have the most impact on important global issues. Our annual Communication on Progress, integrated into this report, reflects our commitment to advancing labor, environmental protection, anti-corruption, and sustainable innovation and development.

- **Zero hunger:** Through leadership in agri-nutrients and food packaging, we are helping to solve the world's food-supply challenges.
- **Clean water and sanitation:** Our solutions in the domestic, infrastructure, and industrial pipe markets help deliver potable water.
- **Affordable and clean energy:** We have committed to significant reductions in our energy intensity and a shift to more renewable energy.
- **Decent work and economic growth:** We add value to the Saudi economy – and beyond – through productivity, employment, and innovative technology.
- **Industry innovation and infrastructure:** We are committed to scientific and technological advancement and the creation of resilient infrastructures.
- **Sustainable cities and communities:** We support sustainable solutions for urban areas, including building insulation, long-lasting and recyclable building materials, and lightweight vehicles.
- **Responsible consumption and production:** By optimizing our natural resources and advancing the circular economy, we spearhead mindful resource use.
- **Climate action:** As one of the world's largest chemical companies, we have a responsibility to address this critical issue.
- **Life below water:** As we take a leadership position in circular economy innovation, we aim to reduce plastic waste in the oceans.
- **Partnerships for the goals:** We have formed collaborations with key global partners to implement our sustainable solutions.

# ENGAGEMENT AND COLLABORATION

In our efforts to lead the industry to a sustainable future, we recognize the broad range of impacts we have on a diverse array of stakeholders. In order to use business for good, we are committed to working with key stakeholders in the 50 countries where we operate.

## STAKEHOLDER ENGAGEMENT: FOUR MAIN OBJECTIVES

- 1 Identify primary stakeholders and sources of accountability
- 2 Understand our effect on stakeholders and their priorities
- 3 Discover new ways to collaborate and create value
- 4 Establish best tools for stakeholder engagement

We weave stakeholder engagement throughout our sustainability program, and our leaders take responsibility for this engagement. We have a detailed discussion of our stakeholder-engagement strategy, and a list of key stakeholders, in the technical supplement on the SABIC website.

## PLASTIC WASTE AND CIRCULAR ECONOMY

SABIC has long been engaged in our industry's efforts to reduce plastic waste. From 2014 to 2018, we chaired the World Plastics Council, a global, industry-led effort to develop sustainable solutions to marine debris.

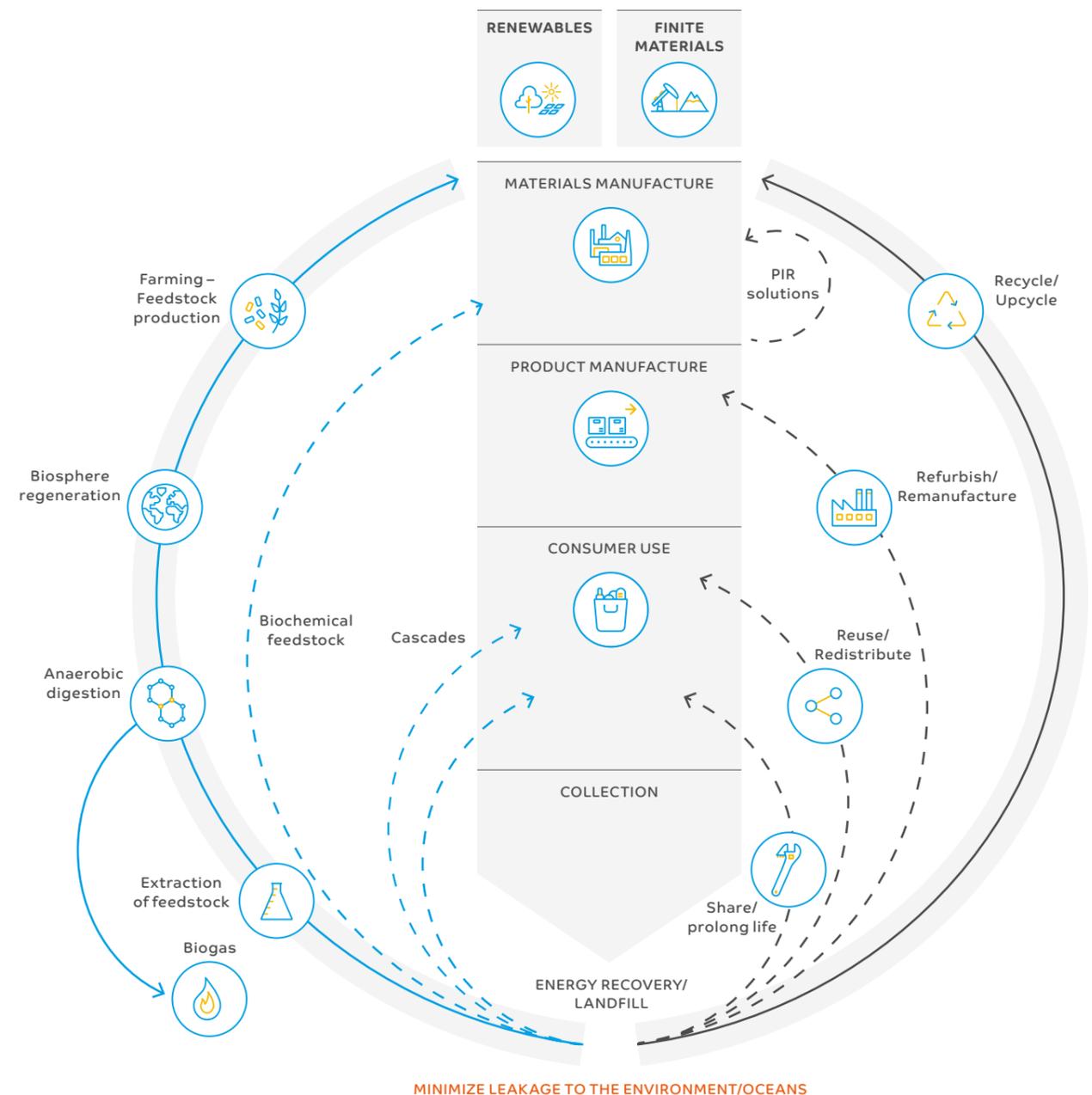
This year, we stepped up our impact by becoming a founding member of the Alliance to End Plastic Waste (AEPW). This new non-profit organization, consisting of global companies across the chemical-and-plastic value chain, will bring collective knowledge, resources, and experience to address plastic waste leaking into the environment. The AEPW has ambitious targets to work with governments, multilateral institutions, companies, non-government organizations, and communities to support investments and programs over the next five years. We are targeting four key areas:

- **Infrastructure development** to manage waste and increase recycling.
- **Innovation** to develop and bring to scale materials, product designs, and new recycling technologies that minimize waste and create value from post-use plastics.
- **Education and engagement** to enlist governments, communities, businesses, and individuals in the movement.
- **Cleanup** of concentrated areas of waste in the environment, particularly in rivers that carry land-based waste to the sea.

As no one company, country, or community can solve this issue on its own, SABIC is committed to working with other alliance members around the world.

SABIC is also actively involved in the American Chemistry Council (ACC), and in 2018 joined other plastic-resin manufacturers to support ambitious goals for capturing, recycling, and recovering plastics. Our goals include participation in Operation Clean Sweep-Blue, a program focused on the stewardship of plastic material at manufacturing sites, and achieving the full re-use, recycle, and recovery of all plastics packaging by 2040.

## CIRCULAR ECONOMY SOLUTIONS: WHAT IS SABIC WORKING ON



MINIMIZE LEAKAGE TO THE ENVIRONMENT/OCEANS

# ENGAGEMENT AND COLLABORATION continued

## THE WORLD BUSINESS COUNCIL FOR SUSTAINABLE DEVELOPMENT

Since 2011, SABIC has participated in the World Business Council for Sustainable Development (WBCSD), a CEO-led organization of more than 200 global businesses working together to accelerate the transition to a sustainable world. We have taken part in multiple working groups this year with experts from the chemicals industry and key downstream businesses. The council recognized SABIC's efforts in three publications in 2018, showcasing our successes and leadership in helping other businesses on their sustainability journeys.

SABIC's 2017 sustainability report, *Building a Better Future*, was highlighted in the WBCSD's *Reporting Matters* publication as a good example of conciseness – choosing quality over quantity, focusing on the five most material issues, and maintaining an engaging tone and length, with details provided separately for readers who wish to explore deeper.

WBCSD also recognized SABIC's leadership in connecting sustainability with finance and support for the development of guidance on how companies can leverage enterprise risk management to understand and mitigate sustainability risks – a practice increasingly adopted by the global financial community.

Finally, SABIC and other companies were acknowledged for contributions to a WBCSD chemical-sector road map that offers a unique, collective vision for how companies can engage across value chains to build business value while contributing to the UN's Sustainable Development Goals.

In China, we drive sustainability engagement through participation in local chemical-industry associations such as the Association of International Chemical Manufacturers and the China Petroleum and Chemical Industry Federation, which focus on proactively monitoring and influencing emerging sustainability-related policies. We advocate for SABIC's sustainability ambitions and achievements at these organizations. We joined the China Business Council of Sustainability Development this year, and participated in discussions on potential solutions to develop a model low-carbon-emission city. We also began building relationships with Chinese recycling-industry associations to understand the single-use-plastics regulatory landscape and policy developments to strengthen SABIC's circular economy leadership in the Chinese chemical industry and value chain.



Stakeholder engagement runs throughout SABIC's sustainability program, and the company's leaders take responsibility for this engagement.

## GOVERNMENT ENGAGEMENTS

SABIC is a trusted partner of the Saudi government, and provides support for climate discussions at the United Nations. This year, a team of employees showcased SABIC's sustainability projects, solutions related to climate change, and future plans in the Saudi pavilion at the Conference of Parties 24 (COP24) in Katowice, Poland, continuing involvement from previous years. SABIC hosted international delegations and the president of COP24, showing our efforts promote the UN's 17 UN Sustainable Development Goals. In addition, SABIC sent a delegate to support the Saudi government at the technical group of the Carbon Sequestration Leadership Forum (CSLF), a ministerial-level engagement to discuss the potential of carbon capture, utilization, and storage. SABIC, with a CSLF-recognized project to capture and utilize CO<sub>2</sub> at its United manufacturing affiliate in Jubail, advocates for the potential of converting the gas from waste into a valuable feedstock.

The European Commission aims to transform Europe into a more circular and resource-efficient economy supported by a new strategy for plastics that protects the environment from plastic pollution while fostering growth and innovation. Turning a challenge into a positive agenda for Europe has a strong business case. The aim is to create new investment opportunities and jobs while making all plastic packaging in the EU market recyclable by 2030 and reducing certain single-use products and micro-plastics.

To help address challenges related to littering and end-of-life options for certain types of mixed plastics waste, the commission supports innovation for steps such as developing smarter and more recyclable plastics, more efficient recycling processes, and better removal of hazardous substances and contaminants. SABIC follows developments with the European Commission closely and engages with regulators through our Government Affairs team and through plastics and chemical industry trade groups.



Engagement and collaboration are the key to innovation.

# ETHICS AND COMPLIANCE

Operating with integrity is something we strive to do every day – not only because it helps to maintain stakeholder trust, but also because it is one of our most important values.



SABIC is a global and diverse organization.

At the core of this approach is the SABIC Code of Ethics: our framework for ensuring compliance with applicable laws and regulations around the world. Our management’s approach to ethical conduct is to adhere to corporate governance structures, policies, and processes in the most transparent manner possible. The most senior executives and governing bodies set a tone of compliance and ethical conduct from the top.

## INTEGRITY CULTURE

This year, we focused on the cultural aspects of our program by seeking to boost a culture of integrity. Across the company, managers took an online course on compliance leadership, and held team meetings on how members can encourage each other to become “ethical upstanders” – employees

who visibly act ethically and help others do the same. In addition, each manager’s team made at least one commitment with specific actions to undertake on a continuous basis to directly improve the integrity culture within the team. As of 2018, 84 percent of our managers made at least one team commitment to improve employee comfort with our integrity culture.

In addition to this global effort, we focused on integrity culture in specific locations. For example, in Saudi Arabia, we held employee ethics and awareness sessions in both English and Arabic to emphasize the importance of an integrity-driven culture and the employees’ role in promoting it. This effort included 16 manufacturing affiliates, 59 executive participants, 83 sessions for employees and contractors, and 7,000 attendees.

In Houston, we organized employee-led focus groups to improve our integrity culture and ensure that employees feel that SABIC is a fair, ethical place to work. This initiative involved 19 “lunch and learn” meetings at all three Houston offices led by “integrity champions,” five round-table discussions for research and development employees led by the General Manager of Corporate Research and Development, two integrity champion meetings, two manager meetings, and an interactive session for Houston-based managers on ethical leadership behaviors.

In India, local activities focused on creating a more positive integrity culture through a town hall and a leadership message to engage with employees in building an ethical workplace. The region also had two round-table discussions and six sessions held jointly by the Compliance and Human Resources departments.

## EXTERNAL LEADERSHIP

In Riyadh, SABIC presented at a seminar called “Compliance to Promote Integrity in the Private Sector,” organized by the Saudi National Anti-Corruption Commission (Nazaha), highlighting our efforts to strengthen the partnership between the public and private sectors through promoting compliance standards, integrity, transparency, and accountability.

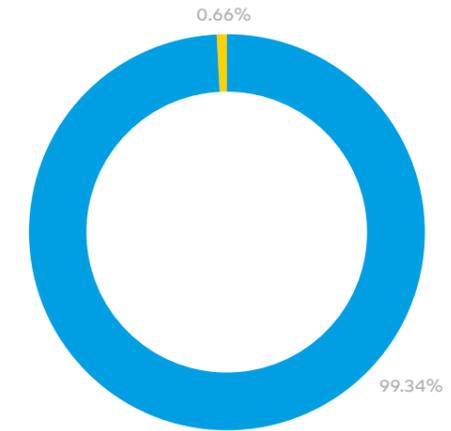
We participated in a round-table organized by the Pearl Initiative, an organization promoting a corporate culture of accountability and transparency as a driver of competitiveness and sustainable economic growth in the Arabian Gulf. During an event, entitled “Business Integrity Principles: Driving Implementation for Sustainability,” SABIC outlined its initiatives to develop an integrity framework, providing practical examples of how other organizations can build capacity.

## COMPLIANCE INVESTIGATION DATA

Entities	Compliance concerns raised*	Incidents closed*	Violations found*
Saudi Basic Industries Corporation and its wholly owned affiliates	152	147	55

\* Assured by KPMG

## \*COMPLIANCE TRAINING STATUS



■ Completed 99.34%  
■ Overdue 0.66%

\* Assured by KPMG

## HUMAN RIGHTS

Corruption can result in states not fulfilling their obligations to the people – and the degradation of human rights. The two concepts are inherently linked. The prevalence of corruption, or the lack of a just society, can have an extremely negative impact on economic development and business success.

SABIC has been a key contributor to the global fight against corruption since 2012 as a founding member of the Business 20 (B20) Anti-Corruption Task Force and through active participation in the World Economic Forum’s Partnering Against Corruption Initiative. We are routinely asked to speak and lead on these issues at some of the world’s preeminent anti-corruption events.

In October of this year, SABIC continued its anti-corruption leadership through participation in an integrity and compliance cross-thematic group at the annual B20 summit in Buenos Aires under the Argentinian presidency of the group of the worlds’ 20 largest economies (G20). The B20 is the official G20 dialogue with the global business community. This elite group of companies provided guidance to G20 leaders on advancing a future-focused, resilient, and sustainable economy. Following this effort, SABIC presented on a panel, called “B20 Policy Actions on Integrity and Compliance.”

# SUSTAINABILITY GOVERNANCE

Our Corporate Sustainability department reports directly to our Corporate Affairs function – a structure that accelerates the pace of change by facilitating communication of progress and enabling closer relationships with external stakeholders.

Making our sustainability communications frequent and clear helps us to inspire employees and embed sustainability into the company culture. Sustainability at SABIC is led by our Sustainability Council, an executive committee chaired by the Vice-Chairman and CEO, and supported by 10 senior executive leaders. The Sustainability Council is responsible for the overall performance of the dimensions of sustainability, defining our sustainability vision and goals, and making final decisions on recommendations developed by the Sustainability Steering Committee. Last year, we added sustainability to the scope and title of the Board of Directors Risk Committee, emphasizing its importance to our business as a whole. Key sustainability decisions and progress are presented and discussed three times each year to the Risk and Sustainability Committee.

Our internal businesses and functions are ultimately responsible for leading progress on the goals created by the Sustainability Council. Each organization appoints a sustainability champion to lead the process, and those leaders work alongside our Corporate Sustainability department in expert sub-teams to advance SABIC's sustainability process and strategy.

Our materiality refresh to determine SABIC's most strategic priorities is an example of the real impact of this structure. Corporate Sustainability gathered input from our operating regions and external stakeholders to determine the top 10 priorities. Steering Committee members approved the list and sponsored a deep dive on each topic, with evidence and recommendations provided through Corporate Sustainability-led, cross-functional global teams.

The final recommendations were reviewed and approved by the Steering Committee and then the Sustainability Council, and will be presented to the board committee in early 2019. Looking forward, the step-change metrics to implement these materiality topics will be reviewed and approved by the council.

In recent years, we have successfully woven sustainability throughout our governance and corporate culture. In 2019, we will move our Sustainability department to the Technology and Innovation function, helping to further accelerate our adoption and development of new sustainable products.

## SUSTAINABILITY GOVERNANCE



In past reports, SABIC has included an "accountability for goals" section. We have removed the section from this year's report as our goals will be changed following the materiality refresh. We will re-introduce this information in a future report linked to our new materiality and associated step-change goals.

# PERFORMANCE SUMMARY

REPORT SECTION	UNIT	2014	2015	2016	2017	2018
<b>ETHICS + INTEGRITY</b>						
Compliance concerns raised <sup>1</sup>	Number	117	123*	94*	114*	152*
Incidents closed <sup>1</sup>	Number	106	103*	94*	97*	147*
Violations found (addressed) <sup>1</sup>	Number	42	56*	52*	58*	55*
Training completion <sup>1</sup>	Percent	98	98*	99*	99*	99*
<b>INNOVATION AND SUSTAINABILITY SOLUTIONS</b>						
Total patent portfolio	Number	10,640	10,960	12,191	11,534	11,738
Sustainability solutions	Cumulative number	45	68	78	82	82
<b>RESOURCE AND ENERGY EFFICIENCY</b>						
Greenhouse-gas emission intensity	tCO <sub>2</sub> eq/t product sales	1.28*	1.25*	1.24*	1.23*	1.22*
Energy intensity	GJ/t product sales	17*	17*	17*	17*	17*
Water intensity	m <sup>3</sup> /t product sales	2.7*	2.6*	2.6*	2.7*	2.62*
Material-loss intensity	t/t product sales	0.099*	0.086*	0.072*	0.078*	0.070*
Flaring reduction compared to 2010 <sup>2</sup>	Percent	49	40	55*	43*	43*
CO <sub>2</sub> utilization	Million t	2.7	3.3	3.6*	3.5*	4.0*
<b>HUMAN CAPITAL DEVELOPMENT</b>						
Women in the workplace	Percent of workforce	7.8	7.9	7.7	7.2	7.3
Learning programs	Participants	NA	30,835	31,062	24,944	22,222
<b>SOCIAL IMPACTS AND COMMUNITY RELATIONSHIPS</b>						
Total community giving	Million US\$	32.7	53.9	46.4	57.5	36.7
<b>SUPPLY CHAIN</b>						
Safety and Quality Assessment System – liquids	Percent of suppliers	NA	100	100	100	100
SQAS – solids	Percent of suppliers	NA	39	69	93	91
Suppliers registered through Global Procurement Due Diligence Program	Number				7,000	9,274
Suppliers with additional GPDDP requirements	Number				1,110	1,483
Suppliers audited according to GPDDP	Number				9	19
<b>ENVIRONMENT, HEALTH, SAFETY, AND SECURITY</b>						
EHSS rate <sup>3</sup>	Incidents/200,000 hours worked	0.69*	0.48*	0.63*	0.50*	0.43*
Total Recordable Incident Rate	Incidents/200,000 hours worked	0.19*	0.13*	0.14*	0.12*	0.14*
Fatalities	Number	0*	0*	14*	1*	0*
Process Safety Total Incident Rate	Incidents/200,000 hours worked	0.02*	0.01*	0.02*	0.01*	0.011*
Hazardous substances released	Metric tons (t)	2,614*	192*	61*	105*	89*

\* Assured by KPMG.

<sup>1</sup> Compliance data are reported for the 23,500 employees of Saudi Basic Industries Corporation and its wholly-owned affiliates, but not for employees of SABIC's non-wholly owned manufacturing joint ventures (or affiliates) in the Kingdom of Saudi Arabia.

<sup>2</sup> Flaring reduction calculations are based on reduction of greenhouse-gas emissions.

<sup>3</sup> This is a severity-weighted rating.

# INNOVATION AND SUSTAINABILITY SOLUTIONS



OUR APPROACH	26
OUR PERFORMANCE	27
INVENTING AND IMPROVING PROCESSES	28
COLLABORATION	29
KEY MARKETS	30
LOOKING FORWARD	34

# OUR APPROACH

SABIC’s culture of innovation has helped to shape and accelerate our commitment to sustainability. Through constant efforts to improve products and processes, we improve our economic and sustainability performance. And as we build sustainability expertise, we are better able to help customers meet their own sustainability goals – and ultimately achieve their business ambitions.

To achieve this, technology teams are embedded in SABIC’s businesses. These teams report to the Executive Vice President for Technology and Innovation. Through this structure and the promotion of a culture of innovation, we are ensuring that creative thinking permeates our organization. We have defined the four key themes in our approach to innovation as follows:

- Delivering new process technologies.
- Creating product solutions to meet changing customer needs.
- Building strong collaborations to achieve scale and improve speed to market.
- Developing new business opportunities.

We leverage our expertise in chemistry and engineering in all of our sustainability efforts for success in process optimization, development strategy, and product design. This approach enables us to continually improve the energy and resource efficiency of our operations, creating greater economic value with a smaller environmental footprint, and helping us to supply sustainability solutions to customers.

### 2018 HIGHLIGHTS

- Progressed the development of our chemical-recycling pilot plant that converts pyrolysis oil derived from plastic waste into valuable feedstock.
- Entered into production of bio-MTBE (methyl tert-butyl ether), an advanced bio-fuel for the transportation market.
- Rolled out Portfolio Sustainability Assessment framework.
- Earned the Protect and Sustain Certification from the International Fertilizer Association for SABIC and its manufacturing affiliates SAFCO and Sabtank, signaling our global product stewardship in the fertilizer industry.
- Developed a reactive sorbent to remove hydrogen sulfide from a product stream at our Mt. Vernon, Indiana, and Burkville, Alabama, facilities in the United States, increasing the plants’ productivity by up to 40 percent.
- Expanded our next-generation THERMOCOMP™ HMD compounds, a portfolio of high-performance materials.

### CASE STUDY

#### COLLABORATING ON NEXT GENERATION OF LIGHTWEIGHT-ENABLING MATERIALS

SABIC believes that thermoplastic composites (TPCs) are the next generation of lightweight-enabling materials – as shown by their increased use in industries from electronics to automotive to aerospace. To speed up adoption, SABIC has collaborated with Airborne and Siemens to lower the cost and accelerate the mass-production of TPCs. SABIC supplied our expertise in materials

performance, composite processing, and product design, which along with Airborne’s parts and process-development experience and Siemens’ digitalization capabilities, enabled us to develop a TPC mass-production line to provide a complete digital factory solution to customers across industries.

# OUR PERFORMANCE



At SABIC, we continue to invest in research and development to find sustainable solutions for our customers.

### PERFORMANCE METRICS

TOTAL PATENT PORTFOLIO <sup>1</sup>	TOTAL NEW PATENT FILINGS	TOTAL SUSTAINABILITY SOLUTIONS <sup>2</sup>
11,738	389	82

#### Notes

<sup>1</sup> 2018 active patent portfolio number (11,738) is similar to our prior year portfolio size. In our international filings, we added more than 2,000 patent applications to our active patent portfolio, including 389 new original patent filings in 2018. SABIC continues to take a more critical view of the added value contributions in our review of the estate and new filings. This resulted in a decision to not presently pursue more than 1,500 patents or patent applications. It also saves us approximately US\$5 million in patent maintenance fees and costs. Further, the drop in new patent filing numbers is primarily because of the strategic decision to file patents on projects of higher return value, such as those that are business critical and in advanced stages.

<sup>2</sup> We identified and nominated six product applications for sustainability solutions qualification process and moved qualification to 2019 due to our priority on portfolio sustainability assessments.

## INVENTING AND IMPROVING PROCESSES

At SABIC, innovation and sustainability go hand in hand – with innovation fueling sustainability, and sustainability fueling business performance. This year, we continued to implement a number of new technologies that maximized productivity and increased process efficiency.

**More efficient glycol processes:** We are on track with a program to implement highly selective catalysts for glycol plants. By the end of 2018, the catalysts were in place at six of our 10 glycol plants. When we complete the roll-out by 2020, it will have reduced SABIC's annual greenhouse-gas emissions by about 450,000 metric tons of CO<sub>2</sub>.

**Recovering ethylene at glycol plants:** Even our optimized glycol processes still lose some ethylene. We are working to capture this valuable chemical by installing new membrane systems in the process vents. Three of SABIC's manufacturing affiliates in Saudi Arabia have installed a total of six units. The per-unit-per-year savings range from 1,000 to 2,000 tons of ethylene from off-gas streams. Upon full implementation, SABIC has the potential to recover up to 10,000 tons of ethylene annually.

**Higher resin yields at lower costs:** In 2018, our engineers re-imagined the making of a specialty monomer used in the ULTEM™ polyetherimide resin manufacturing process, as a part of a ULTEM resin capacity expansion project. After careful laboratory and pilot-plant testing, we were able to increase yields of the specialty monomer by 14 percent over past processes through new extraction columns and optimized process conditions. This allows us to produce more ULTEM resin. Not only will this innovation generate an additional US\$30 million in revenue per year, it will also use at least 8 percent less energy, generating fewer greenhouse-gas emissions.



SABIC continues to implement a number of new technologies that maximize productivity and increase process efficiency.

**A novel technology to clear out manufacturing bottlenecks:** When engineers faced production bottlenecks at our Mt. Vernon, Indiana, and Burkville, Alabama, polycarbonate plants as a result of hydrogen sulfide increases in supplies of carbon monoxide, a key raw material of the polycarbonate-making process, they sought out new ways to increase production. The process developed to selectively remove the hydrogen sulfide is the first of its kind, bringing the plants back up to peak performance while saving up to \$10 million per year in operating costs.

**Site selected for COTC Complex:** SABIC and Saudi Aramco announced the selection of Yanbu on the west coast of Saudi Arabia as the site to develop an integrated, industrial Crude-Oil-to-Chemicals (COTC) Complex. The complex will use advanced technologies to maximize chemical yields at higher production efficiencies and with lower energy consumption.

**Chemical recycling of plastic waste into feedstock for polymers production:** SABIC signed a memorandum of understanding with UK-based PLASTIC ENERGY to build a first commercial plant in the Netherlands to establish a value chain from plastic waste to cracker feedstock.

## COLLABORATION

SABIC's global collaborations – from technology to process to commercial – with industry and academic leaders enable us to offer more sustainable and robust solutions to the innovation challenges facing our customers, helping to ensure their long-term success.

Through these deep relationships, we are more agile and responsive to trends in our core markets, and more in tune to the dynamic needs of a quickly evolving industry. Following are some of our most noteworthy recent collaborations:

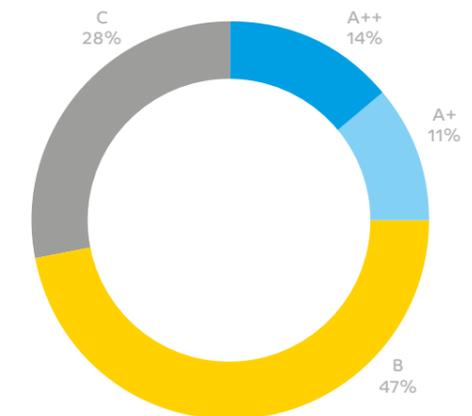
In partnership with the Belgian company ALPAGRO Packaging, SABIC evaluated the market for packaging materials, and identified the parallel roles that renewable and recycled raw materials will play to meet future industry needs. As a result, we developed the concept of AlpaGreen, a polyethylene film for packaging applications – using a SABIC resin made from recycled and renewable materials – offering high performance with appealing sustainability characteristics.

Expanding the availability of advanced bio-fuels will help gasoline producers meet their targets and result in high-efficiency fuels. This year, through a partnership with BioMCN, we started producing bio-MTBE (methyl tert-butyl ether) at a site in Geleen, the Netherlands. Bio-MTBE, produced out of second-generation bio-methanol, is a renewable fuel additive that can be blended with gasoline for a product that results in a more than 50 percent reduction in CO<sub>2</sub> emissions compared to its pure fossil-fuel alternative (based on internal LCA claim). With the new Renewable Energy Directive (also known as REDII) coming into force after 2020, SABIC is very well positioned for the future. The REDII focuses, much more than the current RED, on advanced bio-fuels by capping the use of first-generation feed-and-food-based bio-fuels such as palm oil.

In 2018, we undertook a high-level screening of SABIC's existing product portfolio to identify which parts of the portfolio have sustainability benefits and challenges. The flexible packaging and mass transportation markets became candidates for such portfolio sustainability analysis (PSA) based on a World Business Council for Sustainable Development (WBCSD) framework.

First, we defined a collection of “product-application combinations” to understand their sustainability performance in these markets. Next, we identified key sustainability signals for the markets and assessed how each combination performed. Finally, the combinations were categorized based on sustainability performance. The preliminary PSA result of the flexible-packaging segment indicates that 25 percent of the portfolio has strong sustainability-related benefits, 47 percent is neutral with neither benefits nor challenges, and 28 percent has one or more challenges. We will continue to apply this methodology for more complete portfolio coverage in the coming years.

### PRELIMINARY PORTFOLIO SUSTAINABILITY ASSESSMENT RESULTS FOR FLEXIBLE PACKAGING



■ Strong sustainability benefits (A++ and A+, totaling 25%)  
 ■ Neutral, neither sustainability-related benefits nor risks  
 ■ Sustainability related challenges

## KEY MARKETS

As part of our commitment to customers, this year we introduced new products and applications that meet their performance needs such as strength, flexibility, and light-weighting along with sustainability needs. We found significant business opportunities in the growing demand for low-carbon market solutions for transportation and construction, the supply of hardware for renewables, and the use of CO<sub>2</sub> as a feedstock.

SABIC solutions for cars, trucks, trains, and aircraft help manufacturers reduce weight.



### TRANSPORTATION



Enabling a safer, smarter, and more efficient world of transportation

Our materials solutions for cars, trucks, trains, and aircraft help manufacturers reduce weight, making mobility products more fuel-efficient without compromising safety.

Thermoforming is a widely used process in aerospace that requires the expensive cast or machined aluminum tools. This year, we developed a thermoforming tool for an aircraft interior panel printed on a Thermwood LSAM® (large-scale additive manufacturing) machine using a grade of LNP™ THERMOCOMP™ AM compound, a SABIC material based on ULTEM™ resin with 20 percent carbon-fiber reinforcement. Printed tools can help reduce cost, construction time, inventory, and weight. SABIC promotes large format additive manufacturing for specialized applications like this.

Our customers in automotive seek higher-performance, lighter-weight materials with sustainability benefits, and this year we collaborated with Wise Industries to develop an ultra-high-melt-strength polypropylene resin for interior car-mat production. Using PP-UMS HEX17112 resin, and technical support from our scientists, we produced a foamed polypropylene car mat with 10 percent lower density using existing equipment that performed better and allowed use of up to 15 percent reclaimed material.

SABIC also continues to advance multi-material lightweight solutions for the automotive industry. In 2018, an ongoing collaboration with a global automaker and tier-one supplier culminated in the creation of the industry's first plastic-metal hybrid B-pillar. In addition to weighing 20 percent less than the older, three-piece metal pillar, this innovative one-piece design provides significant cost savings by using non-boron steel, allowing for use of a simple forming operation instead of a hot-stamping process.

SABIC is drawing upon its expertise in crash and energy management solutions to design highly efficient plastic honeycomb solutions, which offer protection to batteries of electric vehicles in side-crash scenarios. Our current design offers up to 60 percent weight reduction over an all-metal version, contributing to overall weight reduction for increased driving range. Combined with other thermoplastic solutions possible with SABIC material and design support, automakers can potentially remove up to 20 kilograms of weight from a vehicle structure.

### PACKAGING



Preserving product value while minimizing environmental impacts

In partnership with our industry partners, SABIC has developed plastic packaging solutions that use minimal resources and lightweight designs to protect product value, help manufacturers serve their customers, and safeguard the environment.

We are developing a number of packaging films from mono-materials, which are more easily recycled at the end of life than multi-material films.

We continue to improve the performance of and market for our Certified Renewable™ polyethylene and polypropylene products such as bi-axially oriented polypropylene (BOPP) film concepts for use in a number of packaging applications. These products, created with renewable feedstock from waste streams, deliver the same performance as conventional, fossil-based products. Among the commercially available products using these materials are Arla's organic milk goods in SIG Combibloc carton packages. We conducted an internal cradle-to-gate life-cycle analysis of our renewable polyolefins, and found that each ton of these products removes about 2 tons of carbon dioxide. Overall, the products use 80 percent fewer fossil fuels compared to fossil-based polyolefins.

As part of our work to create circular economy products, we are developing a number of packaging films from mono-materials, which are more easily recycled at the end of life than multi-material films. In the Chinese market, we were able to incorporate our mono-material based 95MK40T resin for food-container products, which gave our customers lower total raw-material costs, a more stable final product quality, and easier end-of-life recyclability.

SABIC also developed a new mono-material for use in agricultural silage film to protect crops and increase yields. Our innovation offers better adhesion and is much easier to recycle at the end of life than other products on the market.

### AGRI-NUTRIENTS



Improving food security

In our work with food producers, SABIC has developed agri-nutrient solutions that improve food security by increasing crop production. Our latest generation of products reduce the environmental impacts of farms and promote farmer safety.

This year, we completed the development of three novel fertilizer products that lower ammonia volatilization, reducing runoff from fields and protecting water supplies, while offering farmers higher yields with fewer resources. We developed a technology that non-reactively coats urea using biodegradable plastic materials; this new process offers a coated urea with similar nitrogen content as standard urea but lasts for 70 days in the field, which is 50 percent longer than standard urea. In addition, SABIC and its manufacturing affiliates SAFCO and Sabtank earned the "Protect and Sustain" certification from the International Fertilizer Association, signaling the global stewardship of all of our products in the agri-nutrients industry.

In the past, SABIC launched technical-grade ureas to reduce nitrogen-oxide emissions from vehicles and combustion processes. We achieved considerable success in promoting this technology to new markets, including Japan and India. As we continue to boost our production of these materials, we opened a new hub storage facility in Singapore, reducing our shipping lead times by as much as 50 percent to our customers in Asia.

SABIC helped customers in the Middle East region enter the agriculture and aquaculture sectors with our new LLDPE P438J for thin-wall components used in drip irrigation. This tailor-made, single-material solution saves energy, reduces waste, and increases productivity. Additional benefits include better control, improved homogeneity, and simpler inventory management.

KEY MARKETS continued

## ELECTRICAL AND ELECTRONICS



Enabling slimmer and smarter consumer electronics designs

Differentiation in design, style, and performance – in addition to sustainability features – are key needs of the rapidly growing consumer electronics industry. As a premier supplier of high-performance material solutions to electronics companies, SABIC recognizes this through commitment to sustainability, consistent quality, and cutting-edge innovation.

This year, we introduced THERMOCOMP™ HMD compounds that offered, for the first time, both better ductility and better dimensional stability than conventional materials. This unique combination of attributes allows electronics manufacturers to create thinner devices with stronger ability to withstand drops, while also bringing color matching and color stability to manufacturers of devices for fashion-conscious consumers, useful in products ranging from phone cases to laptops. We developed all grades of THERMOCOMP to be halogen-free and flame retardant to support sustainability efforts.

ANT, a leading plastic-mold and die-casting company from South Korea, streamlined its cleaning process for semiconductor encapsulation – a critical step in electronics manufacturing. Using SABIC's ethylene propylene diene monomer (EPDM) elastomer resin as a mold cleaner, our customer reduced the need for a separate cleaning process after each cycle, reducing cycle time, improving resource efficiency and increasing productivity.

THERMOCOMP™ HMD compounds offer, for the first time, both better ductility and better dimensional stability than conventional materials.

## MEDICAL DEVICES



Innovating new materials to enable affordable healthcare

SABIC has extensive experience in providing solutions for a range of healthcare segments, including single-use devices, portable medical equipment, surgical instruments and trays, and materials used in drug delivery. In meeting the trend toward personalized medical care, SABIC provides material solutions while helping customers to imagine new possibilities: demonstrating ways to drive their inspiration to commercialization.

Polyethylene glycol is key for the manufacture of many personal and medical products as there are clear societal and health benefits. Its materials are used around the globe, often as part of liquid prescriptions, capsules, or tablets. Our SAPEG 400 PH is developed under Good Manufacturing Practice standards, ensuring consistency and excellent quality. Our SAPEG series is suitable for use in pharmaceuticals and personal care products, including toothpastes, lotions, and skin care.

Our new ultra-high melt flow PP 514m12 resin brings phthalate-free, odor-free technology to breathable non-woven fabrics suitable for use in personal hygiene products. It delivers processing advantages for products ranging from diapers to wipes to medical masks and can be adapted to other applications such as air-filtration products, providing a safer and healthier market alternative.

## CONSTRUCTION



Driving sustainable, cutting-edge building designs

SABIC has developed a number of innovative materials to help the construction industry build energy- and resource-efficient homes and buildings, reducing the world's emissions and meeting the rapidly growing consumer and regulatory demands for sustainability.

Our SUPEER™ HDPE (high-density polyethylene) P4200RT resin is a new solution for domestic under-floor-heating pipe applications, designed to meet all the requirements of the DIN 16833 and ISO 24033 standards, while providing excellent stress-crack resistance, very good long-term hydrostatic strength, and stability under high heat. Compared to traditional materials used for this application our grades result in lower cradle-to-grave greenhouse-gas emissions and primary energy demand<sup>1</sup>.

SABIC's new STADECK™ heavy-duty panel offers significant weight-saving advantages across a wide range of construction applications and building techniques. The panels, made of extremely lightweight glass-fiber-reinforced thermoplastic resin, are up to 60 percent lighter and potentially recyclable at the end of life.

SABIC has developed a number of innovative materials to help the construction industry build energy – and resource-efficient homes and buildings.

## CLEAN ENERGY



Advancing energy efficiency and renewables

As the world continues to shift to renewable energy, technology and materials innovations have continued to lower the price of renewables, in particular solar cells, further speeding the adoption of clean energy sources. SABIC is dedicated to using our materials expertise to advance the clean-energy shift, and our innovation mindset continues to improve our customers' efficiency as well as our own.

Photovoltaic (PV) solar panels are currently limited in their construction applications due to their heavy glass top-sheets. SABIC is working to replace this glass with the lighter LEXAN™ polycarbonate resin. Incorporating LEXAN into solar panels offers virtually unbreakable impact resistance, ultra-violet protection on both sides, easier installation and on-site cutting, as well as lower costs. We are currently testing prototype PV cells.

This year, SABIC acquired a majority stake in Texas-based nanotechnology company Black Diamond Structures™, which produces modified carbon nanotubes for energy storage applications. MOLECULAR REBAR® surpasses the ability of conventional carbon nanotubes to deliver clean, uniform, and discrete carbon nanotubes that offer better charge rates, battery cycle-life, and energy density. We expect that MOLECULAR REBAR may also help down-gauge and downsize battery designs to help meet growing demand for lighter electric-vehicle batteries with lower production costs.

<sup>1</sup> Internal analysis was based on ISO14040 principles, but did not undergo critical peer review

## LOOKING FORWARD

In the coming years, SABIC will continue to integrate sustainability into product development, process improvements, and collaborations.

Going forward, we will continue to invest in breakthrough process technologies and advanced catalysis in order to achieve our sustainability targets and meet emerging energy-efficiency regulations, such as the Saudi Arabian Energy Efficiency Program (SEEP). We will expand the Portfolio Sustainability Assessment framework to our entire polymer portfolio, identifying the top sustainability solutions as well as potential sustainability challenges, using this assessment as a foundation to develop a long-term metric to measure our progress in sustainability solutions.

We will successfully execute our chemical-recycling pilot plant, to establish a value chain from plastic waste to cracker feedstock, working with brand owners to pre-market these unique solutions and collaborating with more players in the value chain to find solutions to plastics littering and recycling. We will develop training programs for market-facing teams, including sales and technical, to help them become sustainability ambassadors who promote plastics recycling and reuse. And we will develop a technology roadmap and portfolio of projects to use renewable energy in basic chemical production and operations to meet Europe's long-term climate change regulatory and SEEP requirements. Lastly, we will create solutions enabling renewable energy use, while acknowledging the key role our specialties product portfolio play as a source of unique solutions for customers.



SABIC continues to invest in breakthrough process technologies and advanced catalysis in order to achieve its sustainability targets and meet emerging energy-efficiency regulations.

SABIC continues to see great rewards from our efforts to apply innovation to sustainability. We foresee even greater benefits in the coming years as our investments in sustainable materials, processes, and operations grow our business and accelerate our path toward a sustainable future – for our company, customers, and the world.



SABIC will develop a technology roadmap and portfolio of projects to use renewable energy in basic chemical production and operations to meet Europe's long-term climate change regulatory requirements.

# RESOURCE AND ENERGY EFFICIENCY

OUR APPROACH	38
OUR PERFORMANCE	39
GREENHOUSE GAS	40
ENERGY	42
WATER	43
MATERIAL LOSS	44
LOOKING FORWARD	45



# OUR APPROACH

SABIC recognizes its dependence on natural resources: the building blocks for our products. At the same time, we are very much aware of the significant threats – including climate change, resource scarcity, and freshwater shortages – facing the health of society and our continued success as a responsible manufacturer.

This is why we place such a strong emphasis on resource and energy efficiency, embedding it into every aspect of our corporate strategy, culture, and operations. Better efficiency strengthens our market position and helps us to become a global leader in sustainability – and by achieving that goal, we can help to ensure a promising future for our company and communities.

We continue to work towards our ambitious, company-wide, resource and energy efficiency sustainability goals: reducing greenhouse-gas, energy, and water intensities by 25 percent, and material-loss intensity by 50 percent, from 2010 levels by 2025.

We have achieved positive results to date by driving a sustainability culture, training employees, and applying operational excellence. We commit to innovation and efficiency improvement, and provide the structure and guidance to achieve it. To do so, SABIC's Corporate Manufacturing function and manufacturing affiliates rigorously monitor, report, and evaluate performance, striving for continuous improvement. Manufacturing works closely with the Technology and Innovation function on sustainability governance. The overall direction is reviewed twice a year and updated by the CEO and the Sustainability Council.

Manufacturing encourages employees to share their expertise and best practices, and inspire each other through a combination of culture, experience, and commitment. SABIC is poised for long-term success as a sustainable leader in the chemical industry.

### OPERATIONAL EXCELLENCE

As part of a company-wide commitment to excellence, we strive for better resource intensities throughout our operations. In 2017, we launched the SABIC Certified Energy Expert Program, an innovative in-house training that helps to improve our energy-efficiency capabilities and build a network of experts. To date, 84 people have been qualified as SABIC-Certified Energy Experts, up from 37 last year.

As we develop mega-projects globally, we rely on comprehensive sustainability assessments of each proposed project during the design and execution stages. Our teams ensure that the energy and sustainability performance of each project meets or exceeds best in class. To date, we have assessed and identified energy-improvement opportunities for 22 mega-projects.

At our affiliate Kemya in Saudi Arabia, we successfully piloted an energy-optimizer tool in 2017 and, based on this success, we rolled out the tool to three additional sites in 2018. We will continue to introduce it to other sites in 2019.

At our site in Cartagena, Spain, we introduced new energy dashboards to increase visibility of the plant's performance. Similar energy dashboards are installed at our Saudi Kayan and SAFCO manufacturing affiliates. The dashboards are important to monitor and facilitate performance improvements and have resulted in reductions of greenhouse-gas emissions and energy intensity.

We are working to help our affiliates achieve ISO 50001 certification in recognition of their energy-efficiency efforts. The following affiliates and sites have already been certified: Kemya, Yansab, Petrokemya, Sharq, and Hadeed in Saudi Arabia, and Gelsenkirchen in Germany. Ibn Zahr, Ibn Sina and Boroda are considering the certification process. We continue to improve our facility-wide energy-management systems at other affiliates.

### SAUDI ENERGY EFFICIENCY PROGRAM

SABIC continues to support the government-led Saudi Energy Efficiency Program (SEEP) to reduce fossil-fuel consumption in Saudi Arabia and improve overall energy efficiency. We work with manufacturing affiliates to collect annual data on performance at all of our Saudi sites, and implement energy-efficiency projects. This year, we executed Energy Opportunity Assessments at Ar-Razi, Kemya, Sadaf, Petrokemya, Sharq, and Ibn Rushd, providing us short and long-term opportunities for energy improvement.

Furthermore, at every new plant we design, we remain committed to adopting the latest in energy-efficiency technologies and systems to continue our progress.

# OUR PERFORMANCE

### KEY RESULTS

- Stabilized operations at SAFCO in Saudi Arabia, reduced material loss by 336,000 metric tons improving greenhouse-gas emissions.
- Installed a new furnace and vapor-absorption chiller at Saudi Kayan's plants in Saudi Arabia, reducing bottlenecks, greenhouse-gas emissions, energy and water consumption, and material loss.
- Increased visibility into plant performance with new energy dashboards at SAFCO and Cartagena in Spain.
- Positively impacted material effectiveness due to a 12,000-ton reduction in flaring of hydrogen at the Olefins 6 plant at Teesside in the UK.
- Reduced water usage by recycling with filtration at Gas in Saudi Arabia and Cartagena in Spain.



Material loss was reduced by 336,000 metric tons at SAFCO.

### KEY METRICS AND TRENDS

Changes in performance compared to 2010 in greenhouse-gas emission, energy use, freshwater use, material loss, flaring reduction. Total CO<sub>2</sub> utilization is the absolute usage in 2018. The intensities are based on units per metric ton of external product sales.

GREENHOUSE-GAS INTENSITY REDUCTION	ENERGY INTENSITY REDUCTION	WATER INTENSITY REDUCTION	MATERIAL LOSS INTENSITY REDUCTION
10.19%	6.16%	11.16%	41.52%
FLARING EMISSIONS REDUCTION	TOTAL CO <sub>2</sub> UTILIZATION (MILLION METRIC TONS)		
43.3%*	4.0*		

\* Assured by KPMG

# GREENHOUSE GAS

Given international concerns about climate change, SABIC is committed to improving its own carbon footprint, investing in innovations that reduce the environmental impacts of our products – for the benefit of SABIC and its customers – as well as supporting global solutions for a sustainable future.

Our greenhouse-gas emissions intensity, measured in metric tons of CO<sub>2</sub> per metric ton of product sales, fell from 1.23 to 1.22. This marks a 1.02 percent reduction in emissions from 2017, and a 10.2 percent reduction from our 2010 baseline.

Among the projects that helped this progress, our Ibn Zahr affiliate cleaned heater coils at its MTBE-2 plant, reducing the site's emissions by 4,300 metric tons of CO<sub>2</sub> each year. Our Petrokemya PVC team conducted a successful upgrade to eliminate undesirable cleaning processes, increasing productivity while reducing emissions by 1,440 tons of CO<sub>2</sub> per year. We continue to benefit from our carbon capture and utilization plant at United. The plant's load will increase to maximum capacity once a new ethylene glycol plant at United is operational in 2021.

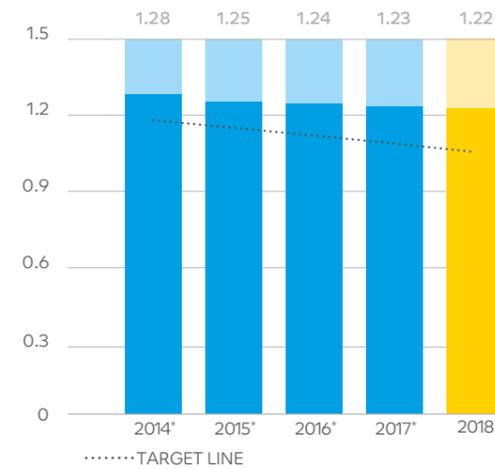
### GREENHOUSE GAS EMISSIONS BY SCOPE (MILLION tCO<sub>2</sub>eq)

	2013*	2014*	2015*	2016*	2017*	2018*
Scope 1	38	38	38	38	37	39
Scope 2 <sup>1</sup>	18	18	18	18	17	18
<b>TOTAL</b>	55	56	56	56	55	57

\* Assured by KPMG  
<sup>1</sup> Location-based method



### GREENHOUSE GAS INTENSITY (t CO<sub>2</sub>eq/t PRODUCT SALES)



\* Assured by KPMG

SABIC's Ibn Zahr affiliate cleaned heater coils at its MTBE-2 plant, reducing the site's emissions by 4,300 metric tons of CO<sub>2</sub> each year.



Left: Supporting global solutions for a sustainable future.

Below: SABIC is committed to improving its own carbon footprint.



# ENERGY

As we work to meet our 2025 sustainability goals, we find that measuring, managing, and reducing our energy intensity helps to limit environmental impacts while lowering operating costs.

This year, our global energy intensity, measured in gigajoules (GJ) of energy used per metric ton (t) of product sales, increased. Our total energy intensity increased to 17.12 GJ per ton from 16.86 GJ per ton in 2017. This marks a 1.6 percent increase from 2017 and a 6.2 percent reduction from our baseline year of 2010. Our total energy use increased from 749 million GJ to 799 million GJ.

A number of important projects at our facilities around the world helped us to improve energy efficiency but we were also confronted with correction in reporting which negatively impacted energy intensity. At our Sadaf manufacturing affiliate, a furnace-cleaning project led to a super-heater efficiency improvement up to 3.5 percent, saving 315,000 GJ of energy each year while boosting production capabilities. Petrokemya also achieved significant savings by cleaning three liquid and two gas-cracking furnaces; as a result, the facility saves 460,000 GJ of energy annually.

Low-temperature waste heat that is lost to the environment through air or water is a considerable share of the energy used in our industry. To exploit this potential energy source, our Saudi Kayan affiliate installed a new vapor-absorption chiller to recover and reuse waste heat. In addition to removing a production bottleneck, the new chiller helped the site reduce energy use by 144,000 GJ per year. In addition, a new furnace installed this year handles 500,000 tons of olefins annually at a much lower energy intensity per ton than the previous equipment.

In Selkirk, New York, we successfully commissioned the Mechanical Vapor Recompression (MVR) system to reduce steam consumption at the PPO (polyphenylene oxide) resin plant. The project helped the site reduce energy use by 105,000 GJ annually, and site energy intensity by 5 percent.

Our Tampico, Mexico, site installed variable frequency drives on their aeration basin pump motors, reducing the energy consumption in the water treatment plant by 30 percent.

In Cartagena, Spain, we implemented a steam-trap management system that saves approximately 300,000 GJ of energy per year. The technology is already in place at Bergen op Zoom and Geleen in the Netherlands, and other sites will adopt it in the coming years.

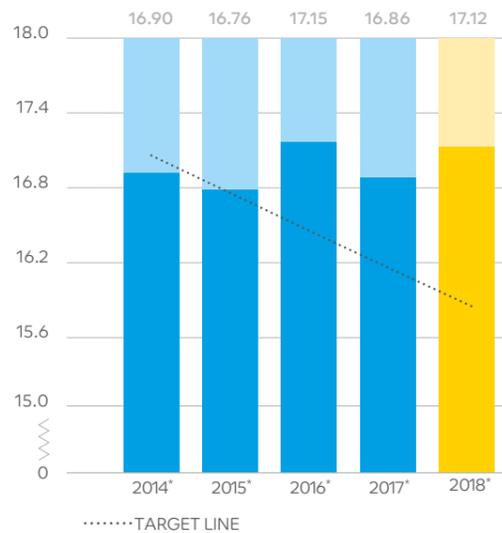
By optimizing the evaporator at our Sharq affiliate's ethylene-glycol plant, we can save 800,000 GJ each year, saving US\$1.8 million in operating costs.

In addition to large projects, SABIC sites around the world completed numerous routine improvements that also contributed to energy-intensity improvements. Our site at Benoi, Singapore, reduced electricity consumption by 2.4 percent by improving production rates, air-compressor settings, and air leakages. Our Rayong, Thailand, site reduced consumption by 2.2 percent by improving production rates and air conditioning. Our Shanghai, China, site reduced consumption by 1.9 percent through a number of efficiency and optimization initiatives on key equipment.

At the Jubail and Yanbu facilities of our manufacturing affiliate Gas, we implemented an advanced process control system and commissioned a master controller to reduce gaseous oxygen losses, reducing consumption by about 56,500 GJ per year.

Production slowdowns occurred at our Mount Vernon, Indiana, site due to river flooding and supply interruptions at an external industrial-gas company. Our ABS (acrylonitrile butadiene styrene) sites experienced a softening of the global styrenics market by 8 percent compared to 2017.

**ENERGY INTENSITY (GJ/MT PRODUCT SALES)**



\* Assured by KPMG

# WATER

Without water, our business – and communities and ecosystems – would be unable to function. A key aspect of our sustainability is to reduce water use everywhere we operate, particularly where supplies are tight.

We measure freshwater intensity performance in cubic meters (m<sup>3</sup>) per metric ton (t) of product sales. In 2018, intensity decreased over last year, from 2.69 to 2.62. We achieved a 11.16 percent improvement over our baseline year of 2010 with a 2.65 percent reduction compared to 2017. Our total freshwater use increased to 122 million m<sup>3</sup> from 120 million m<sup>3</sup> in 2018.

Across our operations, we continue to make more effective use of water. Our Gas affiliate improved its water intensity by 7.5 percent this year by discovering and repairing several water-pipeline leaks and installing a new side stream filter for cool-down processes. Petrokemya improved steam generation and venting, lowering water use by 340,000 m<sup>3</sup> per year, a 14 percent reduction. The Petrokemya team also installed a new recovery line to eliminate rinse-water contamination, saving 280,000 m<sup>3</sup> of water per year.

Our Sharq affiliate retooled its glycol-manufacturing processes to use process condensate in the dehydration stage, eliminating the need for 30,000 m<sup>3</sup> of de-mineralized water use per year.

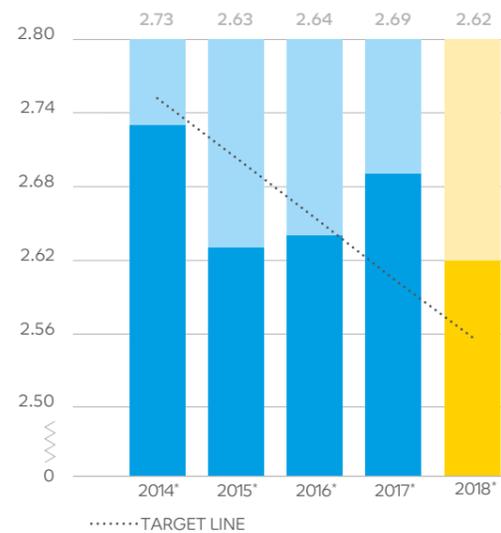
The Rayong, Thailand, site upgraded its cooling tower and conducted a site-wide leak hunt to reduce its annual water consumption by 14.6 percent. Similarly, our Baroda, India, site continued their focus on water recycling and optimization and reduced water consumption by 6.1 percent.

The portable micro-filtration project in Cartagena, Spain, started in September 2018, successfully reducing water usage by 100,000 m<sup>3</sup> per year. The micro-filtration unit removes a water-recycling bottleneck. After micro-filtration, the water is purified by reversed osmosis and then used in processes.

Our Pontirolo site in Italy reduced water usage by 20,000 m<sup>3</sup> per year by introducing de-mineralized water within a closed circuit, replacing fresh water.

Hadeed in Saudi Arabia recycled wastewater for cooling purposes but experienced some quality issues, which we expect to be resolved in 2019. The project can reduce the site's water usage by 100,000 m<sup>3</sup> per year – lowering water intensity by about 2 percent.

**WATER INTENSITY (m<sup>3</sup>/t PRODUCT SALES)**



\* Assured by KPMG

SABIC's Sharq affiliate retooled its glycol-manufacturing processes to use process condensate in the dehydration stage, eliminating the need for 30,000 m<sup>3</sup> of de-mineralized water use per year.



# MATERIAL LOSS

We view any type of material loss as a form of waste – and an opportunity to improve our processes. To improve our business performance and environmental impact, we innovate to recover and use process materials that would otherwise become waste, creating a more circular economy.

This year, SABIC achieved 9.82 percent decrease in material loss intensity over 2017, as measured in metric tons (t) per metric ton of product sales. Our material loss intensity has improved 41.54 percent from our 2010 baseline. Our absolute material loss decreased to 3.3 million metric tons in 2018, from 3.5 million metric tons in 2017.

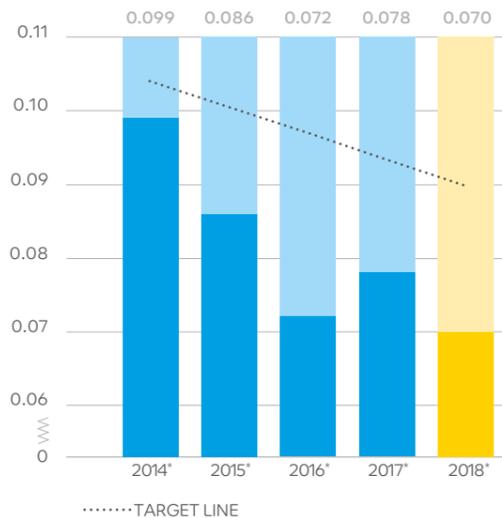
We achieved these results through a number of projects at our facilities around the world. Our SAFCO affiliate cut down material losses by 336,000 tons due to stable operations and efforts to capture and reuse CO<sub>2</sub>.

At our manufacturing affiliate Hadeed, we are working with a third party to recover zinc oxide from the waste stream of our electric-arc furnaces, avoiding more than 36,000 tons of waste per year. Our Petrokemya

PVC team upgraded stripper columns which improved production while eliminating 448 tons of scrap. In Teesside, UK, we reduced the flaring of hydrogen to lower our material loss by 12,000 tons and at Mt. Vernon, Indiana, we shifted 4,000 tons per year of ULTEM™ waste from landfill into useful product.

Compared to 2017, overall flare losses remained constant. The start-up of our new affiliate SAMAC resulted in 100,000 tons of GHG emissions from flaring, impacting material loss and flare emission reduction. Our affiliates Hadeed, Petrokemya, and Ibn Zahr showed increased flaring, while Saudi Kayan, Sharq, United, and Yansab reduced flare losses due to stable production.

**MATERIAL LOSS INTENSITY**  
(t/t PRODUCT SALES)



\* Assured by KPMG

# LOOKING FORWARD

SABIC continues to work toward its 2025 vision, improving efficiency at every step. In the coming years, our focus will remain on the four key performance indicators of greenhouse gas, energy, water, and material loss intensities, and we will target projects that help achieve our goals.

In Saudi Arabia, our manufacturing affiliates are working toward the 2019 Saudi Energy Efficiency Program (SEEP) targets. We created progress plans and track performance regularly – and will continue to support this important initiative. In Europe, we worked with the Dutch government on the “climate tables,” and are developing plans to achieve the climate directive targets based on national legislation.

We developed a new Front Liner Training Program to engage operations and maintenance staff in helping achieve our sustainability objectives. We will continue rolling this program out to all global sites in the coming years.

We are working on a feasibility study with partners in Yanbu for a 300-megawatt solar photovoltaic park. This project for renewable energy would supply electricity to our locally based affiliates. If feasible, we will request project developers for proposals by the end of 2019 or early 2020.

This year, SABIC evaluated the Marginal Abatement Cost of Carbon (MACC) tool to help guide sustainability-and-efficiency project selections. A pilot tool was developed and tested with three industrial processes at our manufacturing affiliates. After digitizing, the tool can be rolled out in the coming years.

SABIC's manufacturing affiliates in Saudi Arabia are working toward the 2019 Saudi Energy Efficiency Program (SEEP) targets.



# EHSS AND PRODUCT SAFETY

- OUR APPROACH 48
- OUR PERFORMANCE 49
- CULTURE OF CONTINUOUS IMPROVEMENT 50
- RISK AND EMERGENCY RESPONSE MANAGEMENT 52
- PRODUCT STEWARDSHIP 54
- LOOKING FORWARD 57



# OUR APPROACH

We conduct business focused on our core value of protection of the environment, health, safety, and security (EHSS). Our leaders and employees expect world-class performance without compromise, and so do our business partners, customers, and the communities where we operate.

We have committed to EHSS performance by embedding a supportive culture that emphasizes the competencies of individual employees, strong systems and rigorous processes, a dedication to risk discovery and chemical safety, and a global focus on continuous improvement.

We manage EHSS risks through a global organization comprising five key functions: Health, Safety, and the Environment; Security; Global Assurance; Process Risk Management; and Product Stewardship. These centers of excellence support and strengthen EHSS performance at sites and in regions. EHSS policies set the direction and guide our journey to become leaders in the chemical industry by conducting operations beyond compliance.

### GOVERNANCE AND OPERATING RHYTHM

SABIC's leadership has created a robust governance system to ensure that our EHSS culture is supported by teams with real accountability.

The EHSS Executive Council, comprising SABIC's Vice-Chairman and CEO, executive vice presidents, EHSS functional leaders, and members of the legal team, meets biannually to review performance, establish milestones, and review strategic programs and company-wide initiatives. A separate EHSS Council, which includes manufacturing-affiliate presidents and site and functional EHSS leaders,

meets quarterly to coordinate strategic programs, enhance EHSS culture, and identify areas requiring special focus. In addition, a Product Stewardship Council advances knowledge and practice, and reduces the environmental, human health, and safety risks of our product portfolio.

Together, these councils support the day-to-day work of EHSS functional teams and complement the many meetings held globally to give manufacturing employees an opportunity to review strategy, share best practices, and build global networks for continuous improvement.

### 2018 INITIATIVES AND CHALLENGES

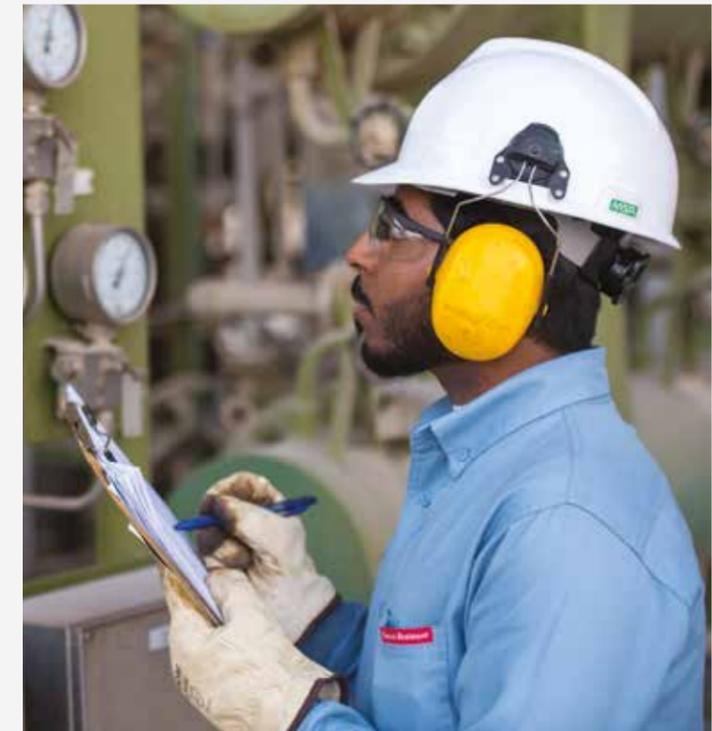
This year, we made strategic investments in the continuous improvement of systems and capabilities. One of the most significant initiatives – an evolution of our EHSS approach – was the launch of an integrated Operations Management System to increase our efficiency and effectiveness.

In this section, we show SABIC's investments in programs that build capabilities in process safety, environmental health, safety and security, auditing, and product stewardship. We will continue to build on initiatives such as these in the years ahead, evolving EHSS key performance indicators (KPIs) and targets, and strengthening risk-discovery management and incident reporting.

# OUR PERFORMANCE

### 2018 HIGHLIGHTS

- Recorded a 14 percent decrease in EHSS Rate year over year, our best annual performance since 2011.
- Launched a new, streamlined Operations Management System that integrates EHSS and manufacturing excellence.
- Increased focus on a strategic set of leading indicators and risk factors in all EHSS disciplines.
- Launched a Product Stewardship and Manufacturing Center of Excellence to share best practices and help reduce the environmental, human health, and safety risks of our product portfolio.
- Enhanced our value chain communications to make it even easier for employees and customers to exchange information on potential hazards and risk-management practices related to our products.



SABIC's strong EHSS systems and processes empower all employees.

### KEY METRICS AND ANNUAL TRENDS

<p>EHSS RATE</p> <p>↓ 14%</p> <p>Decrease</p>	<p>EHSS RATE</p> <p>0.43*</p>	<p>CUSTOMER PRODUCT-SAFETY INQUIRIES</p> <p>↑ 10%</p> <p>Increase</p>
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\* Assured by KPMG

# CULTURE OF CONTINUOUS IMPROVEMENT

The field of EHSS is dynamic; we keep up to date with trends and stay on top of issues by embracing a culture of continuous improvement. Our drive to improve systems inspired a shift this year to a new Operations Management System that integrates EHSS and manufacturing excellence. The system streamlines our approach to managing sites and business units, and provides a clarity of focus to improve and innovate.

## OPERATIONS MANAGEMENT SYSTEM

For more than 10 years, our Safety, Health, and Environment Management Standard (SHEMS) promoted best-in-class EHSS at all of our manufacturing sites, and our Manufacturing Excellence Management Standard (MEMS) complemented that standard since 2015. In March this year, we took these standards to the next level by launching the Operations Management System (OMS) charter, an innovative approach that incorporates both standards, ensuring SABIC's manufacturing can excel in EHSS performance and reliability, while creating value by aligning priorities for site stewardship.

The OMS builds a long-lasting culture of excellence by providing clear principles, unified standards, and the right level of guidance for site-system-and-procedure development. It defines a comprehensive set of competencies that are necessary for implementing standards and processes. We believe this new system will empower our global manufacturing community to take ownership and drive results through commitment and innovation.

## EHSS PERFORMANCE

SABIC measures EHSS performance using important key performance indicators, such as the EHSS Rate, which incorporates a comprehensive range of incident types, including accidental releases to the environment, process-safety events, occupational health and safety injuries, illnesses, and security incidents. Incidents are rated on the basis of severity, and the rate is given for every 200,000 person-hours. We have a long-term strategic goal to reduce our global EHSS Rate to no more than 0.25 by 2025.

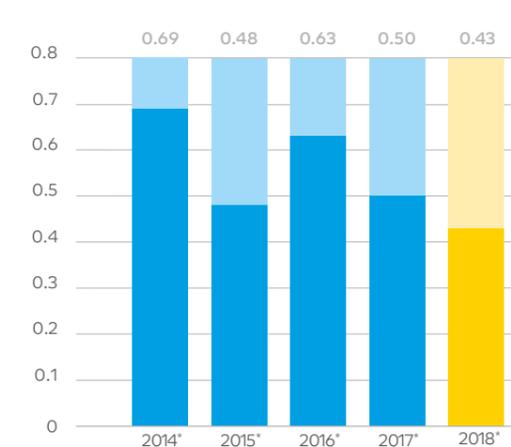
Since 2010, the combined EHSS Rate of SABIC's manufacturing affiliates has improved by 73 percent, with a 14 percent improvement since 2017. Between 2017 and 2018, the Total Recordable Incident Rate rose, from 0.12 to 0.14, and the Process Safety Total Incident Rate remained low at 0.01. We are pleased to report that no fatalities occurred in 2018.

## EHSS RATE METRICS AND ANALYSIS

	2014	2015	2016	2017	2018
Process Safety Total Incident Rate (PSTIR)	0.021*	0.012*	0.018*	0.008*	0.011*
Process Safety Incident Severity Rate (PSISR)	0.083	0.019	0.074	0.025	0.025
Total Recordable Incident rate (TRIR)	0.19*	0.13*	0.14*	0.12*	0.14*
Occupational Illness Rate (Total)	0.019*	0.000*	0.002*	0.014*	0.003*
Security Incident Rate (SIR)	0.001	0.015	0.001	0.008	0.001

\* Assured by KPMG

## EHSS RATE TREND FROM 2014 TO 2018



\* Assured by KPMG

## IMPROVING KPIS

To improve EHSS performance, we continue to develop new tools and promote the sharing of best practices across our global sites. In consultation with internal EHSS experts, we recently replaced our set of leading and lagging key performance indicators (KPIs) for manufacturing affiliates with more strategic KPIs focused on leading indicators and risk factors. These KPIs highlight critical areas in all EHSS disciplines and help address risk-discovery knowledge gaps. In 2019, we will introduce a standardized reporting template for the new KPIs in each region through a series of workshops.

## MAKING EVERYONE ACCOUNTABLE

In May this year, EHSS launched a global campaign to raise the sense of accountability among front-line employees for the environment, health, and safety at work sites. Through the campaign, we held two large workshops covering 18 sites in Jubail and Yanbu in Saudi Arabia. The workshops, which emphasized major themes related to procedure compliance, risk discovery and mitigation, and safe work practices, featured practical examples from routine activities.

In addition to improving awareness and practice, the campaign helped us to identify and address potentially unsafe situations at sites. Looking forward, we plan to hold similar workshops in other regions outside of Saudi Arabia, tailoring the approach to the needs of each site and focusing on strong engagement between front-line employees and site leaders.

## RESPONSIBLE CARE®

This year, we updated our certification for Responsible Care® – the chemical manufacturing industry's environmental, health, safety, and security performance initiative – to the RC14001:2015 standard, verified through third-party audits. We are pleased to report that the auditors have found no major non-conformances in the annual re-certification and surveillance audits in the past five years for SABIC's multi-site certificates.



Safety is the highest priority at SABIC.

# RISK AND EMERGENCY RESPONSE MANAGEMENT

## PROCESS SAFETY KNOWLEDGE AND COMPETENCY

All of SABIC's manufacturing affiliates that undertake hazardous operations strive to implement, industry-best-practice process safety standards. These standards are based on the US Occupational Safety and Health Administration's Process Safety Management and the European Union's chemical accident prevention (Seveso) requirements.

SABIC has developed a range of programs to enhance process safety knowledge and leadership, including the Process Safety Competency Development Program for Engineers at Jubail, which we developed in partnership with Texas A&M University's Mary Kay O'Connor Process Safety Center, highlighted in our 2017 sustainability report. This year, we developed and piloted several new training programs, such as Explosion Protection, Hazardous Area Classification, and Introduction to Machinery Safety. By the end of 2018, some 69 SABIC process safety and process engineers have completed or are enrolled in the developing-level course of this extensive program.

In 2018, we continued to enhance our Process Hazard Analysis Leader Qualification, EHSS Risk Assessment for Leadership, and Fire Prevention and Emergency Management Training programs, details of which are provided in the sustainability report supplement on SABIC's website.

SABIC's manufacturing affiliates have implemented fully compliant, industry-best-practice process safety standards.



## IMPROVING RISK DISCOVERY AND MANAGEMENT

After exceptional growth in 2018, it is important that we continue to improve our understanding and management of EHSS risks to help continue this trend. Risk discovery and risk-based decision making are cornerstones of our approach to process safety performance, which is critical to managing risks associated with rapid manufacturing growth, operation of new and aging assets, and the EHSS education of a growing workforce.

SABIC continues to develop and implement programs to enhance risk discovery, such as our evaluation of near-miss events using SABIC EHSS Event Risk Assessment process, our gap-assessment methodology, and our careful assessments of facilities and sites.

As part of SABIC's process risk management systems, we are further adopting a "layer of protection analysis" gap assessment methodology, which allows us to systematically evaluate engineering options to demonstrate risk "as low as reasonably practicable." This year, our pilot programs in the Middle East and North Africa and the Americas regions yielded good results, helping identify gaps to meet target risk levels.

By the end of this year, all sites have completed the facility-siting studies to evaluate risks and consequences of potential explosion, fire, radiation exposure, and toxic-chemical-release incidents. Currently, all sites are developing action plans for all identified risks to ensure that employees are working in safe buildings, and the communities where we operate are protected.

In alignment with global custom, SABIC has decided to adapt its process-safety metrics reporting to the leading and lagging indicators recommended by international standard API 754, thereby enabling international comparison. External benchmarking of the number of loss of primary containment incidents (LOPCs) demonstrates that SABIC is performing to the best standards in the industry. SABIC improved our corporate leading metrics set by identifying dominant incident root causes and translating them into key metrics.

## ENVIRONMENTAL RELEASES AND EMISSIONS MANAGEMENT

We make it a priority to reduce environmental emissions, and have set a goal to eliminate all accidental releases of hazardous substances into the environment. We manage this issue by carefully tracking and categorizing all accidental releases based on severity, and we work to eliminate emissions of hazardous materials and minimize all others. In addition, SABIC Global Environment has developed an emission analysis tool to reveal anomalies in emissions data, which helps facilities to identify and follow up on non-compliance risks. As we do with safety issues, we also identify and analyze the root cause of incidents, and share what we learn with SABIC manufacturing affiliates to ensure best practices across our operations.

In 2018 the total number of hazardous-substance release incidents decreased from 35 to 29. The total volume of hazardous substances released, also decreased by 15 percent.

## SECURITY MANAGEMENT

To enhance global security and protect our employees, assets, information, products, and the environment, we have updated a number of our policies and programs. We implemented a new standardized security-risk-assessment methodology and tools to identify, assess, and mitigate security risks of personnel, assets, and operations. The updates support security in areas such as travel and the management of personnel, particularly in new and emerging markets. In addition, our information technology and operational technology security specialists worked with our global Security Center of Excellence to introduce optimized cyber security requirements that align with leading initiatives and enhance security for all company assets and information in a dynamic-threat environment.

## EMERGENCY RESPONSE AND CRISIS MANAGEMENT

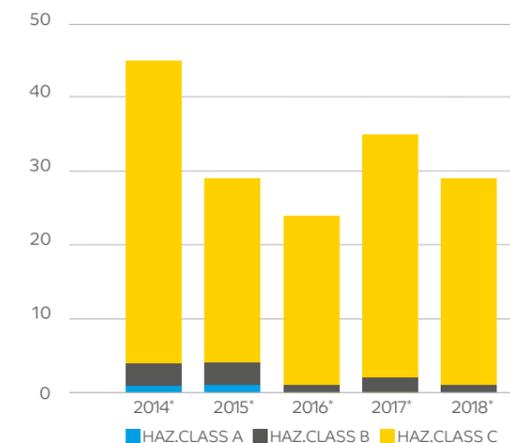
SABIC's emergency and crisis management program is designed to ensure effective emergency response and crisis management at local, regional, and global levels.

This year, we revamped our corporate crisis management process to integrate it into SABIC's global business. We enhanced our crisis management by prioritizing crisis management risks and conducting exercises to ensure we are prepared for any risk, including cyber security. Beyond these steps, we implemented two critical programs aimed at crisis management assurance and continuous improvement: we delivered a global unified crisis management leadership training, and we launched the SABIC Crisis Management App to support the global crisis management process. The application enables members of crisis management teams everywhere to share information and contact details, and manage the crisis management notification and communications process.

## PRE-INCIDENT PLAN: TESTING OUR EMERGENCY READINESS

This year, we piloted pre-incident plans (PIPs) at three sites to define the required resources and test each site's emergency-response readiness. We plan to implement PIPs at all SABIC sites globally based on the minimum high-consequence scenarios identified in a process-hazards-analysis study. The implementation will help sites mitigate risk while preparing for all types of emergencies.

## TOTAL NUMBER OF HAZARDOUS SUBSTANCE ACCIDENTAL RELEASE INCIDENTS



\* Assured by KPMG

# PRODUCT STEWARDSHIP

A strong product stewardship program is critical to the success of our EHSS management and sustainability programs. Our mission is to establish a strong product stewardship culture, which leads to excellence in product risk management and adds business value across the global supply chain through safe, compliant, and sustainable solutions.

SABIC seeks to continuously improve its culture and processes for both new and existing products to reduce health, safety, and environmental risks for the company and its customers.

At SABIC, the Product Stewardship function is composed of product safety, regulatory affairs, and toxicology professionals. Over the years, SABIC has built strong product stewardship management practices and has a long-standing track record of success in complying with both global and national chemical regulations to ensure our license to operate and to manufacture and sell our products globally.

Our success is built on maintaining information on the safety, health, and environmental hazards of our products and raw materials, and collecting information on exposure-and-use scenarios. New products and formulations go through a rigorous screening and approval process to characterize, manage, and mitigate risk throughout the product life cycle. We actively seek alternatives in cases where safe use cannot be guaranteed. We communicate product stewardship information to internal and external stakeholders globally so that products are managed and handled safely as intended. We seek to continuously improve our culture and processes for both new and existing products to reduce health, safety, and environmental risks for SABIC and its customers for the benefit of our global communities.

## PRODUCT STEWARDSHIP KNOWLEDGE AND COMPETENCY

A critical part of our approach to product stewardship is developing the knowledge and competencies of our team members. Training embeds stewardship into our culture and promotes ownership, with defined roles and responsibilities for employees at each site.

This year, we launched our Product Stewardship and Manufacturing Center of Excellence initiative, which defines who is responsible for product stewardship activities, and establishes a series of meetings and workshops to raise awareness, share knowledge and best practices, and help the Global Product Stewardship team identify areas for continuous improvement.

To complement the center of excellence, we began developing a new detailed product safety training curriculum for two levels of expertise suited to a broad group of specific company roles. In 2019, we will develop the training content and roll out the program for functional business employees. We will do the same for affiliate employees in 2020.

SABIC Technology Center in Bengaluru, India, supports global product stewardship testing requirements.



## PRODUCT RISK DISCOVERY AND MANAGEMENT

At SABIC, chemical safety is of utmost importance; we have developed a robust approach to stay up to date on all chemicals-management risks that affect our business globally. This includes evaluating risks and mitigation opportunities at the earliest project stages of research and development (R&D), conducting comprehensive risk characterizations for our high-priority products to mitigate potential risks throughout the life cycle, and improving a strong regulatory compliance program.

The timely identification and evaluation of new or modified chemical-management regulations reduces the risk of potential non-compliance incidents for SABIC and its global customers, and ensures a continued license to operate. It also aids our advocacy for fair regulatory practices in chemicals management. This year, we greatly enhanced our ability to monitor the global regulatory environment through a new regulatory intelligence improvements and calendar project. The calendar alerts global Product Stewardship staff members to time-sensitive regulatory compliance tasks. To complement this, we instituted a uniform global standard for regulatory monitoring and for regulatory impact assessment to ensure that we have the necessary processes and accountability measures at each of our locations. In countries where our local access to data is limited, we are working with third-party service providers to obtain best-in-class monitoring capabilities.

In addition to monitoring regulations, we take steps to mitigate risks internally through an EHSS risk-assessment program focused on R&D and through a risk-characterization program for our high-priority products.

In collaboration with teams from Technology and Innovation, SABIC's Global EHSS function launched a centralized process to coordinate EHSS and product stewardship reviews across R&D projects. Through this centralized process, our EHSS experts have screened 300 projects, looking at sustainability initiatives such as reducing hazards, achieving process efficiencies, increasing product utility, reducing environmental emissions, and recovering materials.

Beyond assessing R&D risk, we have set an ambitious goal to complete comprehensive risk characterizations for 50 high-priority products by 2021. Since launching this initiative in 2016, we have finished extensive risk characterizations for 35 products. Through these characterizations, we are collecting information on hazards, intended uses, and potential exposures throughout each product's life cycle, and we are outlining areas of health, safety, and environmental risk at manufacturing sites and downstream customers in the value chain. The initiative enables us to identify and communicate options for mitigation and management to ensure that the products are used safely and as intended. We plan to document and share the results of all risk characterizations.

## CASE STUDY

### PRODUCT STEWARDSHIP AT SABIC TECHNOLOGY CENTER IN INDIA

The regulatory analysis team at SABIC Technology Center in Bengaluru, India, supports global product stewardship testing requirements for emerging and continued sustainable business growth.

This year, our experts applied their nearly two decades of experience, and advanced instrumentation facilities, to complete 32 compliance projects to meet the worldwide product safety regulatory requirements for business continuity. Highlights included

- Food contact compliance testing on the existing polymeric products to align with the US Food and Drug Administration, the European Food Safety Authority, and other global testing protocols.
- Food contact exposure evaluation of

chemical substances from developmental grades of polymers that are projected for food contact applications.

- REACH EU chemical registration analytical support to ensure regulatory compliance and the license to make, import, and sell SABIC products in Europe.
- Physico-chemical studies according to the Organization for Economic Co-operation and Development (OECD) test guidelines.
- Polymer registration according to the Japanese Ministry of Economy, Trade, and Industry guidelines.
- Root cause investigation on product deviations affecting product safety.
- Globally Harmonized System of Classification and Labeling assessments of chemical substances.

## PRODUCT STEWARDSHIP continued

### EHSS IN VALUE CHAIN COMMUNICATION

We take product safety responsibilities seriously, and have cultivated an open channel of communication across the value chain to ensure that our products are used safely and appropriately. This year, we enhanced value chain communications to make it even easier for employees and customers to exchange information on potential hazards and risk-management practices related to our products. We also continued efforts to respond quickly and thoroughly to customer inquiries.

We diligently build a strong bridge of communications with customers to understand potential hazards and risk management practices. In 2017, we piloted a new communications protocol with key styrene and methanol customers in the United States as a part of our Responsible Care® value chain initiative. This year, we expanded this protocol for customer outreach on the priority chemicals butanol, MEA (monoethanolamine), and TEA (triethanolamine) in Europe, and methanol in India. These pilots have

helped improve how we engage customers on hazard and regulatory topics. In the coming years, we plan to institutionalize our value chain communications with customers of priority chemicals in all SABIC business units and regions.

In addition to proactively communicating with customers on high-priority chemicals, we pride ourselves on responsiveness to customer product stewardship requests and inquiries. This year, we responded to 13,932 inquiries – a 10 percent increase from 2017. The increase in inquiries was driven by rising regulatory pressures and customers requiring more in-depth information.

As we endeavor to make communications seamless, we also work to enhance the SABIC website through a strategic initiative between our Product Stewardship, IT, and Global Communications teams. The initiative has developed new automation features and made a standard set of regulatory documents and product safety information available for customers to download.

### CASE STUDY

#### IMPLEMENTING GLOBAL STANDARDS WITH THE GPCA



**Abdallah Abu-Haidar** – Senior Specialist, Global Regulatory Affairs, Product Stewardship, SABIC

As Chairman of the Product Stewardship Task Force, I lead a group of 10 representatives of chemical companies from the Gulf Cooperation Council. In 2017, the Responsible Care Committee chartered our task force to implement the Global Harmonized System of classification and labeling of chemicals in the region. This system is intended to provide consistent and harmonized hazard communication associated with the chemical supply chain, from production to final disposal, with the aim to reduce overall risks associated with management of chemicals and substances.

This year, the Gulf Petrochemicals and Chemicals Association (GPCA) and the Gulf Standardization Organization agreed to promote this important initiative.

We contacted UNITAR – the UN organization that helps implement the globally harmonized system – visited global consultants, and

presented about the system to the Emirates Authority for Standardization and Metrology in Abu Dhabi, the first government authority to review the proposed initiative.

Later in the year, we presented the first draft Global Harmonized Standard for the Gulf Standardization Organization at a workshop in Kuwait sponsored by EQUATE. A technical committee is reviewing the new standard and our task force will further support this important journey.

Initiatives such as this, with backing from the region's most influential industry associations, are leading the way in raising product stewardship and hazard communication standards in the Gulf region.

Khaled Al-Kharboush, Vice President, EHSS, Corporate Manufacturing, and member of GPCA'S Responsible Care Committee, is responsible for the continuous improvement of EHSS standards in the production and movement of petrochemicals and chemicals in the Gulf Cooperation Council.

Khaled Al-Kharboush commented in the Responsible Care Committee general meeting on November 8 in Kuwait: "The GPCA and the industry appreciate the efforts of the Product Stewardship Task Force to support Responsible Care initiatives and spread a culture of product stewardship in the region."

## LOOKING FORWARD

In 2019, we will continue to improve by embedding a culture of EHSS even deeper into our organization through capacity building, streamlined programs, and innovative initiatives. We have begun this process with the launch of the Operations Management System and enhancements to our risk discovery and management.

For all EHSS functions, we will place a high priority on competency enhancement and improvements to EHSS culture, including adapting leading and lagging indicators for process safety metrics reporting as recommended by international standard API 754, enabling international comparison.

We are determined to excel in product stewardship, particularly in effective communications with our customers and the downstream value chain. This external focus will complement the solid foundation of product safety fundamentals built internally over the past five years.

Our broad external vision includes ensuring all product-hazard communications and compliance documentation needs are easily accessible to external stakeholders and meeting innovative Responsible Care requirements, such as visibility into sustainable product development, plastics-waste management, and the identification of new, more sustainable chemistry to meet future market needs.

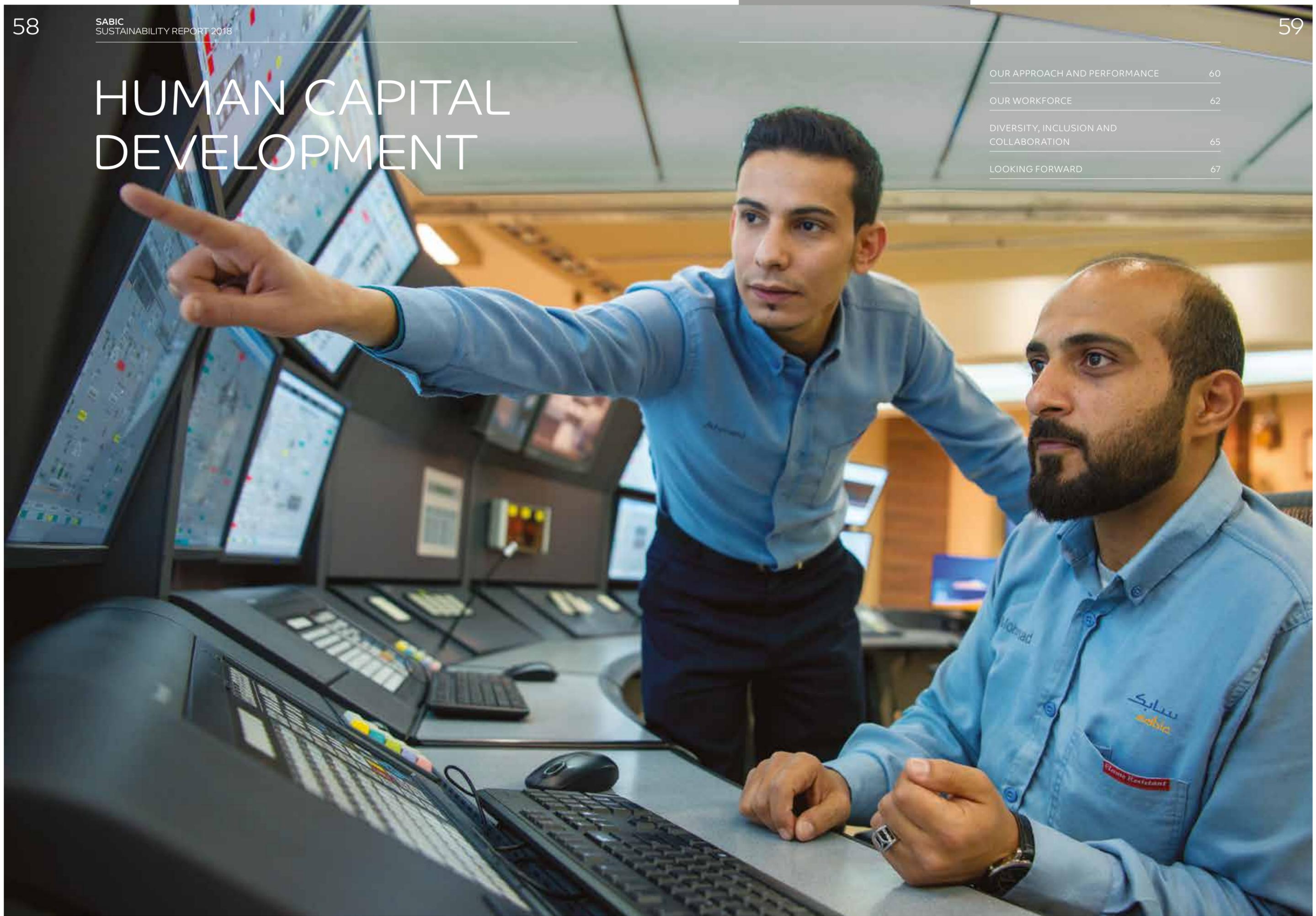
Lastly, we see the likely increase in chemical-product regulatory compliance as an opportunity to respond to a range of requests from both internal and external stakeholders. We welcome this opportunity to increase this culture of EHSS within our company and industry.

SABIC has embedded a culture of EHSS into the organization.



# HUMAN CAPITAL DEVELOPMENT

OUR APPROACH AND PERFORMANCE	60
OUR WORKFORCE	62
DIVERSITY, INCLUSION AND COLLABORATION	65
LOOKING FORWARD	67



# OUR APPROACH AND PERFORMANCE

As we continue in our mission to become the world’s preferred supplier of chemicals, we strive to create the ‘Chemistry that Matters™’ to help our employees succeed. We depend on their dedication for success – and they can count on our support to achieve career and personal goals.



SABIC’s approach to human capital development enhances its competitive edge.

We have an approach to human capital development that supports our focused and consistent path of organizational transformation. Our goal is to achieve the business-oriented, strategy-driven human resources model we introduced in 2017. This model strengthens a culture of leadership and shapes a singular corporate identity to guide SABIC into the future.

This approach to human resources – built around three core pillars: strategic business partnerships, operations, and a specialized community of expertise – gives a competitive edge by accelerating growth, delivering a steady stream of innovations, ensuring profitability, and developing the next generation of leaders to outperform our industry peers.

## PERFORMANCE METRICS

<p>WORKFORCE</p> <p><b>64% MEA</b></p> <p>16% EUROPE, 8% ASIA, 12% AMERICAS</p>	<p>SABIC SCHOLARSHIP PROGRAM PARTICIPANTS</p> <p><b>720+</b></p>	<p>MORE THAN</p> <p><b>340</b></p> <p>SABIC EMPLOYEES ASSIGNED GLOBALLY</p>	<p>EMPLOYEES</p> <p><b>33,000+</b></p>
<p>LEADERSHIP TRAINING PARTICIPANTS</p> <p><b>1,400+</b></p> <p>AND 67 PROGRAMS CONDUCTED</p>	<p>LEARNING-AND-DEVELOPMENT PROGRAMS</p> <p><b>3,000+</b></p>	<p>TRAINING PROGRAM PARTICIPANTS</p> <p><b>22,000+</b></p>	<p>WOMEN IN THE WORKFORCE</p> <p><b>7.3%</b></p>

Our company-wide Human Resources organization has played a critical role in guiding SABIC’s organizational transformation. HR operations drive compliance with established governance, capitalizing on economies of scale for cost efficiencies, value creation, customer service, and employee satisfaction. Global operations are complimented by regional operations that enable improved process standardization and automation, creating a consistent organizational framework to enhance collaboration and alignment on opportunities to maximize value from global HR systems. Regional HR operations align policies and practices, and promote events for HR team members to engage with and listen to employees. In addition to this work, the regional teams support global human capital initiatives by working directly with the Executive Vice President of Human Resources.

At a global level, SABIC’s Human Resources team has evolved into a “Community of Expertise” by facilitating integrated solutions that span our global operations and better support business needs. As part of this process, we are working to maximize use of existing internal and external resources, such as HR talent platforms and the SAUDI HR Think Tank.

Throughout this process, HR Business Partners – who directly support internal businesses or corporate functions on behalf of the department – helped lead our transformation towards more strategic workforce planning and set the direction of our company-wide human capital strategy.

We believe that fostering dialogue among our global workforce is the best way to recognize and encourage our employees’ unique motivations and ambitions, and match them with the opportunities



**ANANDA K. SEKAR**  
Lead Scientist,  
Corporate Sustainability

“Transformational” is one adjective that I identify with SABIC today as it continues to grow into a strong leader in the industry.

we can offer. Some employees may want to make an impact and innovate. Others look to grow their talents through development and learning opportunities. Others still may want the challenge of thriving in SABIC’s unique global environment. We help to fulfill employee aspirations while achieving our corporate mission through a number of ambitious initiatives: the SABIC Leadership Way, to develop talent and transform culture; the SABIC Academy, our core learning platform; extensive dialogue-cultivating initiatives; and continuing efforts to expand and support a diverse and inclusive workforce while cultivating the next generation of employees and leaders.



## OUR WORKFORCE continued

### EXPLORE WHAT MATTERS

As part of our Employee Value Proposition, in 2019 we will introduce “Let’s Explore What Matters,” an online platform with the many direct, indirect, and non-financial benefits for current and prospective employees. The platform provides employees with better and clearer incentives, training and career opportunities, and strengthens talent retention and attraction. The platform’s three key categories are Compensation Matters, Career Matters, and Culture Matters.

### CONTINUING EMPLOYEE DIALOGUE

Throughout 2018, SABIC maintained a dialogue with all employees. In January, the CEO hosted the Global Employee Town Hall at SABIC Global Headquarters in Riyadh with interactive, live-streaming video to sites throughout the Middle East, Europe, Americas, and Asia-Pacific regions. The town hall gave employees the opportunity to hear directly from senior leadership about the company’s progress, economic and environmental challenges we face and anticipate, and how they can support growth.

This year, we sent our second Pulse Dialogue Survey to every SABIC employee globally. We received more than 19,000 responses, a clear indication of employee commitment to our dialogue journey. Through the survey, we learnt that employee confidence in SABIC’s strategic leadership increased noticeably; the survey results made clear that we need to continue to improve in communication to employees and performance culture. We commit to addressing these concerns in 2019.

We continued our emphasis on employee dialogue at the annual Year-End Meeting, during which SABIC leaders reviewed the company performance and planned for the year ahead. During the meeting, SABIC honored employees who have reached levels of exceptional achievement and heard from customers and special guest speakers.

### TOP EMPLOYER

Although we remain focused on our long-term transformation, we are proud to receive recognition of our successes to date. This year, SABIC earned Top Employer Institute certification in five of our key Asian markets: China, India, Japan, Singapore, and South Korea. We have now earned this certification for nine consecutive years in China, and have earned the Top Employers Asia-Pacific certification and Top Employers certification in India, Japan, South Korea, and Singapore for six consecutive years. We are honored to earn this recognition for our focus on employee development and organizational excellence. We strive to continue this performance.

### SABIC ACADEMY

The SABIC Academy has served as our core learning platform since 2012. We have developed more than 6,000 courses to support learning at every professional level and area of our business.

In December this year, we held a two-day leadership summit at the SABIC Academy in Riyadh that brought together more than 120 SABIC leaders for three intensive leadership-development programs. These year-long programs help leaders understand SABIC’s global portfolio business and best practices in leadership. The programs, co-created with some of the world’s leading business schools, give leaders the tools to guide large-scale organizational transformation in terms of inspiring and mobilizing others, and leading the company forward.

2018 marked the third year we hosted the SABIC Leadership Program (SLP) for senior government officials at the SABIC Academy. We brought together 110 senior officials to Riyadh for three sessions to share our expertise and develop leadership skills. We launched the SLP as part of SABIC’s commitment to collaborate with the government in developing human resources and build leadership skills to meet future challenges. Since 2016, we have shared the strategies and modern management techniques that have helped SABIC to become a global industry leader.

### ENABLING SAUDI VISION 2030

We continue to invest heavily in supporting Saudi Vision 2030, and we believe that developing human capital will play a major role in its success. SABIC’s key roles in fulfilling the vision include promoting human resources best practices in Saudi Arabia and preparing young Saudis for the labor market by expanding their skills to help achieve their potential.

We continued our annual Summer Innovation Program in 2018, inviting the children of SABIC employees and affiliates to Riyadh, Jubail, and Yanbu for a three-week event that promotes a culture of innovation and stimulates creative thinking in line with Saudi Vision 2030. This year’s program offered courses on designing educational products, smart houses, mobile applications, and renewable energy.

In partnership with the Saudi Ministry of Civil Service, we launched Saudi Arabia’s first “Human Resources Think Tank” in December 2018. The three-day event brought together high-ranking HR professionals from the Saudi government to share best practices in developing people and unlocking their full potential. As a result of the event, SABIC will take the lead in creating a community of HR professionals from across Saudi Arabia to share best practices and perspectives on finding effective solutions to human resources challenges in the country’s public and private sectors.

## DIVERSITY, INCLUSION AND COLLABORATION

At SABIC, we take pride in our ability to attract and retain the best and brightest people from around the world; we recognize that diversity of experience, knowledge, and ideas in an inclusive atmosphere makes our company more creative, innovative, and effective. By creating a working environment that values inclusion and collaboration, we can ensure our future success.



**FAHAD AL-SHAMEKH**

Senior Product Executive, Petrochemicals

At SABIC, we have diverse experiences, not only in terms of culture, but also in the wide knowledge employees can gain from different fields. In an industry like ours, characterized by dynamism, innovation and frequent change, diversity of experience is a real strength.

We have expanded two employee networks to help us expand the support we offer to the next generation of SABIC leaders. The Young SABIC Professionals and SABIC Women’s Network platforms engage our early-career, male and female employees with networking, training, and mentoring, while strengthening their bonds with senior leadership and peers.

Through SABIC Young Professionals, we offer an internal communications platform to understand the aspirations and experiences of our young employees, and to guide them to career-development programs that best meet their needs and goals. We have cultivated a network of experienced SABIC professionals through the SABIC Leadership Way to act as mentors and guides, which helps draw participation and retain top talent.

Throughout 2018, the SABIC Women’s Network (SWN) took pride in creating opportunities to elevate talented women within SABIC and around the world.

Within SABIC, SWN members played prominent roles in Executive Committee meetings, sharing with senior leadership experiences of how embracing diversity shaped careers, creating success for themselves and our organization. Members also actively promoted the SABIC Leadership Way, stepping up to train colleagues and motivate peers to commit to the mindsets, behaviors, and skills that shape the initiative.

SWM member and Director of Growth for Original Equipment Manufacturers and Markets in our Specialties business, Maureen MacDonald Stein, delivered a powerful and high-profile presentation on leadership to more than 300 women in our industry at the 2018 “Women Breaking the Mold” forum, sponsored by Plastics News. MacDonald Stein shared personal stories with the audience as examples of SABIC’s core values and competencies, such as personal leadership, adaptability, collaboration, and peer development.

## DIVERSITY, INCLUSION AND COLLABORATION continued



**ALMAHA  
ALKHODAIR**

Associate Counsel,  
Legal Affairs

I am proud to work for a company characterized by a diverse workforce that develops its own people. SABIC is giving me a platform not only to build my career, but to encourage other women to do the same.

Continuous learning is an important part of workplace culture for everyone.



### ENGAGING EARLY TALENT PIPELINES

To attract and empower early-career employees, we focus on development, engagement, networking, training, and community services – strengthening bonds with senior leadership and creating tomorrow's leaders. This year, we participated in a series of events for our new employees.

Our Early Career Program (ECP) initiative gives new SABIC hires who are recent university graduates an accelerated learning experience through functional rotations of six months to develop their expertise and network – and ultimately prepare them for a successful career at SABIC. We currently host ECPs in our Finance, Supply Chain, IT, Procurement, Commercial, Manufacturing, and Engineering and Project Management departments. This year, we hosted the fifth annual ECP event in Jubail, bringing together 140 participants to teach young SABIC employees the foundations of our business through diverse assignments, training, and focused development. Through the event, participants got a better understanding of business functions and inter-dependencies. A number of senior SABIC leaders shared their insights on our business and the opportunities for young professionals.

As part of an ongoing HR initiative, in March we invited 120 student participants in the SABIC Scholarship Program (SSP) to take part in a special meeting with Yousef Al-Benyan, Vice-Chairman and CEO, at our Global Headquarters in Riyadh. The meeting was the latest in a series of events connecting the CEO with SSP students in the Americas, Europe, Asia, and Saudi Arabia. Participating students had the opportunity to present exhibitions of their innovative projects, ask questions, and seek advice from the CEO and other SABIC leaders. Since 2005, the program has accommodated more than 1,900 students and provided the means to support their individual efforts for continuous learning and development.

At a "Global New Hire Experience" event in April, Al-Benyan welcomed our newest SABIC employees and shared his experiences of how SABIC's values – Inspire, Engage, Create, and Deliver – serve as the guiding principle of the company's success. He highlighted how the SABIC Leadership Way can help them achieve their full potential, and took part in a dialogue with attendees.

Events like this show SABIC's dedication to creating culture of continuous learning for everyone in our workforce. By guiding employees from their earliest days with the company, we aim to nurture talent and aspirations, and help every SABIC employee achieve his or her career ambitions and life goals.

## LOOKING FORWARD

Across SABIC's human capital development efforts there is a single goal: continue our organizational transformation to cement our position as the preferred global leader in chemicals.

We are continuing to build a diverse and inclusive corporate culture, placing a strong emphasis on supporting employees and developing the next generation of leaders.

We are aligning these efforts with our 2025 strategy, expanding our leadership and innovation capabilities through the SABIC Leadership Way, and through it, working to fulfill the goals of Saudi Vision 2030.

We are continuing to build a diverse and inclusive corporate culture, placing a strong emphasis on supporting employees and developing the next generation of leaders, in part through the creation of a new Young Employees Committee, chaired by our CEO, to shape our future workplace to inspire the next generation. We will make the SABIC Scholarship Program available to female students, providing numerous opportunities to continue higher education and specialize in their areas of work. We expect 2019 to be largely focused on preparation and development, with roll-outs and implementation of a number of initiatives that will accelerate our progress on achieving our goals and securing our future successes.



SABIC continues to build a diverse and inclusive corporate culture, placing a strong emphasis on supporting employees.

# SUPPLY CHAIN AND PROCUREMENT

OUR APPROACH	70
OUR PERFORMANCE	71
SUSTAINABLE SUPPLY CHAIN	72
SUSTAINABLE PROCUREMENT	76
LOOKING FORWARD	77



## OUR APPROACH

In line with our 2025 strategy, we are committed to creating the most efficient and environmentally friendly supply chain in the global chemical industry. Achieving this allows us to create value by developing the skills and practices of employees and service providers, and it helps us make a positive contribution to the communities and environments in which we operate.

Every year, our global supply chain delivers more than 37 million tons of products to some 20,000 locations in over 140 countries. In addition, flow through around 200 distribution centers using 500 logistics service providers. The vast majority of our supply chain is maritime transport; road freight is a much smaller portion.

This year, our focus on strategic execution and operational excellence resulted in strong overall performance from Global Supply Chain, including sustainability. We introduced a Global Supply Chain Excellence Framework to enhance reliability, agility, resilience, and efficiency, and to stimulate innovation. The framework, which consists of nine elements, covers all aspects of the supply chain, from strategic governance to operational excellence to EHSS and sustainability. Global Supply Chain will use this framework to further improve sound governance and measurement of our EHSS and sustainability activities.

The framework helps to deliver dangerous-goods documentation, supplier qualification, Safety and Quality Assessment for Sustainability-program compliance, key performance indicators (KPIs) for sustainability and safety, incidence reporting, reporting best-practices, regular enterprise risk management assessments, risk management and business continuity plans, abnormal-situation plans, and crisis management.

### NINE ELEMENTS OF THE GLOBAL SUPPLY CHAIN EXCELLENCE FRAMEWORK

- Framework governance and performance management
- EHSS and sustainability
- Customer fulfillment
- Digital enablement
- Supplier management
- Strategy governance
- Organizational capabilities
- Integrated network resilience
- Innovation and continuous improvement

We continued to use our Supply Chain Performance Management program, launched in 2017, to rapidly scale up our sustainability performance. This key tool provides a visual snapshot of our supply chain sustainability performance, as well as other business metrics, enabling us to thoroughly measure, validate, and analyze critical performance data and quickly prototype new metrics. This year, our average transportation intensity factor was 12.6 grams of carbon dioxide equivalent per ton-kilometer transported (g CO<sub>2</sub>eq/t-km). Compared to the overall 2017 result, due to the fact that we included more detailed data, including significantly more road transportation, this is not an improvement. We did make reductions in several areas, however, highlighted in the following pages.

In an effort to increase transparency, SABIC is pleased to report our absolute supply chain emissions related to entire goods transport operations. These totaled 2,360 kilotons of CO<sub>2</sub>eq in 2018, which is 4.01 percent of SABIC's overall emissions.

Every year, we continue to raise expectations for our supplier networks' sustainability performance by more deeply integrating sustainability into our systems and management approach. This year, we revamped our system for selecting and evaluating logistics service providers to further embed sustainability into our decision-making process. We also enhanced our supplier-due-diligence process to improve how we monitor their performance according to our sustainability expectations.

## OUR PERFORMANCE

### 2018 HIGHLIGHTS

- Ranked third for excellence in the chemicals industry in Gartner's top 25 supply chain benchmark, demonstrating SABIC's leadership, based on insights from customers, suppliers, peers, and industry analysts.
- Revamped our approach to assessing and selecting logistics service providers to more deeply integrate sustainability with leading industry tools, including Safety and Quality Assessment for Sustainability, Gulf-SQAS, Chemical Road Transport Safety System, and the Chemical Distribution Institute scheme.
- Achieved better-than-expected performance after the first full year operating two next-generation ocean vessels – the GasChem Beluga and the GasChem Orca – which reduce fuel consumption by an estimated 30 percent compared to traditional vessels.
- Rolled out Operation Clean Sweep across all of our global facilities, a campaign by the Plastics Industry Association and the American Chemical Council to eliminate the release of plastic pellets, flakes, and powder into the world's streams, waterways, and oceans.

SABIC's global supply chain delivers more than 37 million tons of products to some 20,000 locations in over 140 countries.



# SUSTAINABLE SUPPLY CHAINS

SABIC aspires to be recognized globally as a chemical industry's leader in sustainable supply chains. Not only does this help our company perform better, reducing costs and improving efficiencies, it also drives our desire to innovate and deliver value to customers, the communities where we operate, and the environment.

## ASSESSING LOGISTICS SERVICE PROVIDERS

We continually raise the bar on what it means to create a sustainable supply chain. One of the ways we do this is by driving home our commitment to sustainability among logistics service providers. We want them to understand the value we place on sustainability, and we want them to embrace our aspirations for exceptional performance. Ultimately, we hope they understand that sustainability can help differentiate their business, making them more competitive over the long term.

To this end, we have revamped our approach to assessing and selecting logistics service providers to more deeply integrate sustainability. One of the most significant opportunities is updating the recognized industry tools used to assess their quality, safety, security, and environmental performance.

As a committed user of tools such as the Safety and Quality Assessment for Sustainability (SQAS), Gulf SQAS, Chemical Road Transport Safety System (CRSAS), and the Chemical Distribution Institute (CDI) scheme, SABIC provides expertise on questionnaires and assessor training, and our representatives serve on the technical and executive committees of these initiatives. In the past, these tools have focused on traditional supply chain safety. We are expanding the criteria to include more sustainability initiatives, including ethical requirements, Operation Clean Sweep to prevent plastic pellet spills, and incident insights. We support their expansion in the Middle East, China, and Southeast Asia, and to include warehousing and cleaning stations. The following sections show how we are working with these bodies to incorporate sustainability into their assessments.

In addition, we continue to assess the performance of logistics service suppliers, and work with them to improve. SABIC requires that every supplier agrees to our Supplier Code of Conduct. We have achieved 100 percent compliance with our Supplier Code of Conduct for all new suppliers and now report those numbers in our procurement data.

## SAFETY AND QUALITY ASSESSMENT SYSTEM

SABIC uses the Safety and Quality Assessment System (SQAS), among other schemes, to help identify performance gaps and areas for improvement among logistics service providers, identifying the best performers. The chemicals industry, including SABIC, has used this system to understand performance in areas such as sustainability for 25 years. The system utilizes third-party assessments to help us work with logistics service providers on continuous improvement and to support risk management.

Since 1992, this system has evolved to accommodate the changing demands of the industry. In recent years, SQAS representatives worked closely with industry stakeholders, including SABIC, to enhance the scheme with more robust sustainability and corporate social responsibility criteria. We are pleased with this development, which aligns with SABIC's long-term emphasis on environmental and social-responsibility performance.

We have adapted the scheme to create a local Gulf SQAS (G-SQAS). In 2014, we updated the questionnaire to include corporate social responsibility, employee welfare, and fire risk in the core module. We also updated the module to include behavior-based safety, and trained seven assessors who have been validated by G-SQAS Committee subject matter experts. The new modules were launched in September this year, and all new assessments are now based on the 2018 version of the questionnaire.

This year, 100 percent of our liquid goods carriers in Europe, the Middle East, and China – including those who carry non-dangerous liquid goods – have been assessed according to SQAS.

In our solids-transport operations, which all transport non-dangerous goods, we have assessed 91 percent of those chartered in China, the Middle East, and in Europe using SQAS protocols. Among these carriers, we assessed all bulk carriers.

## CHEMICAL ROAD TRANSPORT SAFETY ASSESSMENT SYSTEM

This year, SABIC transitioned from using the Road SQAS scheme in China to the Chemical Road Transport Safety System (CRSAS). Challenges and performance gaps in local markets vary, so applying this scheme in China enabled us to fulfill our Responsible Care charter in land transportation in China, while meeting our global SQAS sustainability KPI.

The development of CRSAS began in 2015 to promote the safe, efficient road transportation of dangerous goods through the Chinese logistics industry. In 2018, the chemical industry collaborated with Chinese government agencies and nonprofits to establish the CRSAS, which includes a new tool to assess the quality, safety, security, and environmental management systems of logistics providers. As with other schemes, the system uses independent evaluators, who provide data to chemical companies, so that we can review results and work with logistics suppliers on targeted improvement plans.

By the end of 2018, 17 chemical companies had signed on to CRSAS.

## CHEMICAL DISTRIBUTION INSTITUTE

SABIC uses the Chemical Distribution Institute (CDI) scheme to ensure that maritime logistics service providers are meeting industry expectations for safety, security, and quality performance when it comes to chemical transportation and storage. CDI questionnaires cover categories such as environmental stewardship, including waste and carbon emissions; social responsibility to employees and regional and global stakeholders; and economic vitality, which includes strategies for social responsibility and environmental stewardship. SABIC's participation in CDI allows us to manage risks and demonstrate our Responsible Care commitment.

Today, CDI has 64 chemical-company members, with almost 1,000 ship operators registered in the CDI-Marine scheme. In a one-year period, around 2,400 inspections are conducted by over 100 globally located CDI accredited inspectors, resulting in over 2,000 active CDI Marine inspection reports in the database at any one time.

Since its inception in 1994, this scheme has evolved and grown, aligning more closely with sustainability and transparency objectives. Since 2014, for instance, CDI has partnered with the Dutch Green Award Foundation to audit and certify vessels as environmentally friendly with a Green Award. In 2015, CDI issued the sixth edition of its Terminal Inspection Report, which resulted in an additional 200 questions and more than 1,000 changes. These changes reflect an increased emphasis on preventive maintenance, environmental audits, employee skills and competency, and sustainability.

## SUPPLY CHAIN INCIDENT REPORTING

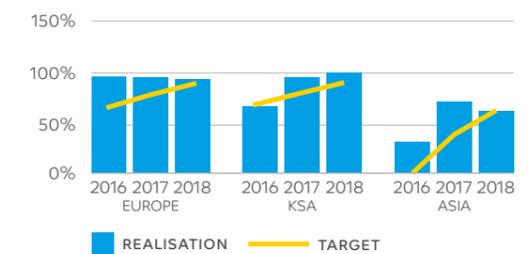
SABIC reports, analyzes, and tracks incidents across our supply chain. We use our Supply Chain Incident Reporting KPI to measure safety performance, identify improvement areas, and create an internal and external benchmarking platform and improvement road map.

We aim to identify the root cause of every incident so that we can understand how to avoid similar incidents in the future. We have an ambitious multi-year target to achieve either a 10 percent improvement over the average of the past three years or a 10 percent improvement over the previous year's target, whichever is lower.

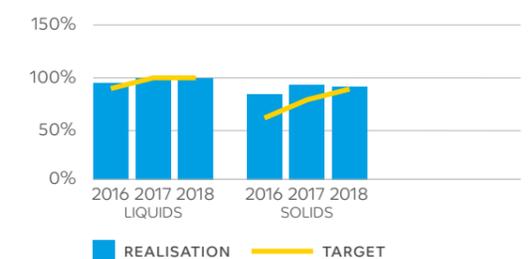
Our incident rate this year shows a 77 percent improvement over our three-year performance average. Based on this, our reduction target for 2019 is 50 percent. As we improve our incident rate, we have determined that human error is the most significant cause of incidents, and we are working with our logistics service providers to enact corrective safety actions.

## KEY METRICS AND TRENDS

### SQAS BY REGION FOR LIQUIDS AND SOLIDS



### SQAS FOR LIQUIDS AND SOLIDS



# SUSTAINABLE SUPPLY CHAINS continued

## REDUCING OUR CARBON FOOTPRINT SUPPLY CHAIN CARBON FOOTPRINT MODEL

SABIC's Global Supply Chain Sourcing and Excellence team introduced a new supply chain carbon-footprint model that provides emissions details down to the individual-shipment level.

This model incorporates energy-based carbon-footprint contributions on every transport mode and route where actual fuel consumption can be measured. Where energy-based measurement is unavailable, we use industry-standard emissions factors for transport modes. Through this model, we can visualize carbon-footprint contribution as a specific KPI, enabling management teams to accurately predict the sustainability impacts of improvements in our supply chain.

This model builds on previous work to reduce our supply chain carbon footprint, several examples of which made significant achievements in 2018.

## GASCHEM BELUGA AND GASCHEM ORCA

SABIC's next-generation vessels, GasChem Beluga and GasChem Orca, have now been operational for a full year – and they are performing even better than expected. The vessels feature a breakthrough design with an increased carrying capacity of 30 percent, which reduces fuel consumption considerably, even as it maximizes reliability and sea endurance. In addition, both vessels primarily burn ethane, a cleaner fuel that will enable us to meet strict maritime nitrous-oxide and sulfur emissions requirements that go into effect in 2020.

### CASE STUDY

#### ADDRESSING PLASTIC IMPACTS THROUGH OPERATION CLEAN SWEEP

The Plastics Industry Association and the American Chemical Council launched Operation Clean Sweep® to encourage industries that handle plastic resins to prevent plastics from entering the world's streams, waterways, and oceans. Companies that sign up to the Operation Clean Sweep pledge to work toward 100 percent containment of pellet, flake, and powder, saving valuable resources and protecting the environment. To do this, facilities are implementing measures to avoid spills during logistics operations, such as changing the equipment used to fill bulk trucks, educating drivers on secure practices, and changing the design of new packaging operations.

## NCC FAJR

Since 2014, we have used the NCC Fajr chemical tanker to carry SABIC goods. The Fajr was purpose-built as the world's largest-capacity chemical tanker, designed to carry large amounts of cargo efficiently. This year, the Fajr moved an average of 76.6 kilotons per shipment, nearly double the 40-kiloton capacity of a conventional chemical tanker. The carbon intensity of each shipment was 27 percent below the industry average, reducing our carbon footprint from these shipments by 18.5 kilotons of greenhouse-gas emissions over the course of the year.

## REDUCING EMISSIONS IN ASIA THROUGH RE-PALLETIZATION

SABIC has embarked on a new approach to provide compounding feedstock in Asia, enabling us to reduce our carbon emissions by 138 tons in 2018.

Previously, our compounding plants in Asia bought feedstock from our European plants, using ocean vessels to ship the palletized material to eight compounders. Through the new process, our European plants send bulk shipments to China, where they are repacked in large sacks and palletized, before continuing their journeys by sea or land to the Asian compounders.

This year, Asia repacked 598 tons, saving 138 tons of CO<sub>2</sub> emissions. In 2019, we expect to repack 9,000 tons, saving 2,147 tons of emissions.

Having initially committed in Europe since 2015, this year we started to roll out Operation Clean Sweep across all of our global facilities. In 2019, we will formally include this commitment for all relevant operations as part of a new SABIC-wide water-management standard. In our supply chain, we are implementing the program, and helping it to expand beyond Europe through engagement with logistics service providers – growing the program, which has global ambitions, further and wider in our value chain. We direct the service providers to sign on to Operation Clean Sweep or equivalent programs, which we assess through the SQAS questionnaires, and we work with them to create strategies and engage in awareness programs and training on the impact of pellet, flake, and powder loss.

## AN ENERGY-EFFICIENT DESIGN COMPARED TO STANDARD LNG/LEG VESSELS

Most ships that carry liquefied natural gas are designed to carry freight in front of the vessel with the accommodation and the engine room located in the stern, or rear. While this design makes sense when the cargo-hold is full, the ships run heavy in the rear after they have delivered their cargo, and so they must be counter-weighted on return journeys with ballast. This means the ships are carrying dead weight, requiring more fuel because of ship design.

SABIC has pioneered a new design with the GasChem Orca and GasChem Beluga vessels to more equally balance the weight of the ships in the bow, so that when they are unloaded, they sail more evenly without as much additional ballast – and with less fuel. In addition, we fuel these ships with ethane, which is less polluting than diesel.

Thanks to the efficient and innovative design of the GasChem vessels, their dual fuel engines have emitted 23.7 kilotons or 32 percent less CO<sub>2</sub> when benchmarked with comparable conventional vessels that carry the same type of cargo.

## FROM ROAD TO SEA WITH REDUCED CARBON

In China, our logistics team changed the transportation used for 40 kilotons of goods, shifting from road to short-sea inter-modal transportation with an average distance of 1,850 kilometers. This shift results in a net savings of 2.3 kilotons of CO<sub>2</sub>eq per year.

### CASE STUDY

#### A SUCCESSFUL EMERGENCY RESPONSE: SEVERE STORM RESULTS IN PLASTICS SPILL IN SOUTH AFRICA

As a global company, we work alongside logistics service providers to help ensure that they are prepared for unforeseen incidents that may pose a risk to our operations or to the communities and environments where these logistics systems operate. We want to ensure a quick and efficient response in the event of any emergency.

In October 2017, a severe storm at the Port of Durban, KwaZulu-Natal, South Africa, broke the moorings of several ships, resulting in the collision of two vessels, including one carrying SABIC plastics. The collision ruptured a container holding plastic pellets, called "nurdles", which spilled into the harbor.

Immediately, the Mediterranean Shipping Company (MSC), which operated the ship carrying the SABIC materials, coordinated with port authorities and hired a reputable global salvage-and-emergency-response company

to lead the clean-up and recovery process in the port. As soon as SABIC was notified of the spill, we sent a representative to inspect the damage, and we voluntarily activated our own response, including hiring a specialized environmental cleaning company to assist with cleaning the plastic pellets that had washed up on nearby beaches. As the responsible ship owner, MSC took over this engagement to ensure the most efficient, continuous, and coordinated operation.

By nature, emergency incidents are unexpected, but our robust policies and procedures, and coordination with our logistics service providers, enabled swift action to resolve the issue. We were pleased that the sustainability-rankings organization, EcoVadis, recognized SABIC for its response and re-confirmed the overall 'gold medal' rating for its sustainability and corporate social responsibility performance.

## SUSTAINABLE PROCUREMENT

According to our Sustainable Procurement Policy, SABIC operations must procure materials and services from suppliers that meet legal, ethical, and fair practices in line with the SABIC Supplier Code of Conduct.

The policy enables us to get the materials and services we need when we need them at the lowest total cost of ownership, creating the best value for SABIC.

We are committed to sourcing from suppliers that meet SABIC's high requirements for quality, environmental and health performance, safety and security, sustainability, and social responsibility. This year, our Supplier Relationship Management team enhanced the Supplier Due Diligence program through a life-cycle management initiative for better performance.

**We are committed to sourcing from suppliers that meet SABIC's high requirements for quality, environmental and health performance, safety and security, sustainability, and social responsibility.**

### GLOBAL SUPPLIER DUE DILIGENCE PROGRAM

In addition to the life-cycle management enhancements, we continued to enhance our Supplier Due Diligence Program's process for supplier registration and adherence to our high standards of excellence.

These improvements include a global training campaign for all SABIC buyers. All new suppliers are required to undergo this registration process, and we also are adding existing suppliers to the process. As suppliers complete registration, we are better able to track their performance, regularly monitor compliance, and identify those that work in higher-risk fields or regions that require additional screening.

To date, 9,274 suppliers have registered through the new process, and 1,483 of those have undergone additional due diligence as a result of the findings during the preliminary supplier-registration process. Based on risk profiles identified during registration, 19 of those suppliers received a thorough audit as the final phase of due diligence.

With each new supplier we register, screen, and, where required, audit, SABIC gains more information and detail about the sustainability of our global supply chain, allowing us to continue to assure our own customers about our ongoing commitment to making improvements.

## LOOKING FORWARD

SABIC continues to improve its Supply Chain Performance Management system. Over the next year, we will make our system more flexible and enable faster response times. This will give our Supply Chain team the opportunity to anticipate new legislation and reduce the overall cycle time involved in supplier interactions. It will also enhance due diligence with our suppliers by improving the speed of registration and qualification, enabling SABIC to identify and address risks earlier with suppliers.

As part of our ongoing efforts to reduce the environmental impacts of our transportation systems, and in line with our commitment to responsible shipping, SABIC is looking forward to joining the Clean Cargo Working Group of BSR (Business for Social Responsibility), a nonprofit organization, in 2019. With over 50 members, Clean Cargo represents approximately 85 percent of global container cargo capacity and constitutes the leading buyer-supplier forum for sustainability in the cargo-shipping industry.

Global Sustainable Procurement will review how to report on certain impact areas called out by the Global Reporting Initiative, such as spend on local suppliers, waste management in warehouses, and supporting our strategic business units on recycling initiatives.

**Robust supplier registration enables tracking and monitoring of performance and compliance.**



# SOCIAL IMPACTS AND COMMUNITY RELATIONSHIPS



OUR APPROACH	80
OUR PERFORMANCE	81
CSR PRIORITY AREA HIGHLIGHTS	82
LOOKING FORWARD	87

## OUR APPROACH

Through our programs in corporate social responsibility (CSR), SABIC recognizes that we must serve and improve the communities in which we live and work around the world. Our long-term success depends on that of the wider society.

To bolster the social, environmental, and economic value of our business, we have developed a number of strategic programs and investments to help us build healthy, resilient communities – and we encourage employees to participate in the causes and programs that they are passionate about.

To develop CSR initiatives that achieve the maximum positive impact and support sustainable development at scale, we leverage a stakeholder driver strategy that directs internal and external collaboration, and identifies opportunities.

The process assesses global mega-trends, including impacts from climate change, trends in urbanization and consumerism, and advances in economics and technology. Insights developed with stakeholders enable us to connect CSR initiatives with our 2025 strategy.

Guiding our overall CSR strategy is the RAISE program, which uses the following criteria to evaluate the potential positive impact of initiatives:

### R: Reputation

Does it raise SABIC's overall visibility and reflect positively on corporate identity?

### A: Audience

Does it address community needs and engage key stakeholders?

### I: Innovation

Does it include a novel approach or new technology that distinguishes SABIC leadership?

### S: Strategy

Does it complement business interests and align with company values?

### E: Endurance

Does it promote a socially responsible culture and generate a positive and lasting impact?

SABIC uses RAISE as a strategic tool to guide our signature global programs while recognizing the great diversity of our workforce and communities. Through RAISE, we have identified the following four priority focus areas:

- Science and Technology Education
- Environmental Protection
- Health and Wellness
- Water and Sustainable Agriculture

A well-defined regional-governance structure drives RAISE, which has been developed in alignment with Saudi Vision 2030 and the UN's Sustainable Development Goals, to address society's most pressing needs by 2030.

This year, we continued to leverage our economic performance, culture of sustainability, and passionate and compassionate workforce in each of these priority areas for the greater good.

## OUR PERFORMANCE

Investment in science and technology education helps expand the talent pipeline.



To develop CSR initiatives that achieve the maximum positive impact and support sustainable development at scale, we leverage a stakeholder driven strategy that directs internal and external collaboration, and identifies opportunities.

### THROUGH RAISE IN 2018 CSR initiatives by spend

COMMUNITY GIVING  
IN 2018  
(US\$ million)

36.5

TOTAL GIVING OVER  
PAST 17 YEARS  
(US\$ million)

900+

# CSR PRIORITY AREA HIGHLIGHTS

## 1. SCIENCE AND TECHNOLOGY EDUCATION

This year, SABIC continued to advocate for STEM (science, technology, engineering, and mathematics) education. We are particularly proud to have expanded our signature Back to School program in Vietnam in partnership with ChildFund Vietnam in Hanoi and the Saigon Children's Charity. In the United States, we helped raise funds for STEM education at the annual Society of Automotive Engineers Foundation gala in Detroit. And in Saudi Arabia, we created new opportunities through partnerships such as that with the Al Eradah Society for Talented People with Disabilities.

## 2. ENVIRONMENTAL PROTECTION

As a global chemical company, we recognize our role in protecting the natural environment and providing relief to those in need. As part of this commitment this year, we signed the UK Plastics Pact, a collaborative effort to tackle plastic waste, and gave financial support to the Japanese Red Cross Society in response to flooding that affected 30 prefectures in the summer. Supporting our efforts to promote a green and waste-free environment, SABIC employees participated in Earth Day and World Clean-Up Day.

## 3. HEALTH AND WELLNESS

To foster a culture of well-being, SABIC promotes both mental and physical health at work and in the community. This year, we provided care for underprivileged and visually impaired children in several Indian states, contributed to breast-cancer awareness in Brazil, and promoted healthy living at sporting events in Saudi Arabia and the Netherlands. For efforts such as these, SABIC received "ambassador" status, the highest available award, at the Better Health at Work award annual ceremony in the UK.

## 4. WATER AND SUSTAINABLE AGRICULTURE

SABIC is committed to raising awareness of effective ways to conserve water in daily life, and to advancing technologies and practices that make agriculture more sustainable. This year, we were proud to host the Sustainable Agriculture Awareness program in Sudan's River Nile state, and to collaborate with the Saudi Ministry of Environment, Water, and Agriculture in the continued development of the Estidamah Agriculture Research Center. In addition, we promoted forest conservation in Brazil and contributed to the development of resilient and clean natural resources in the UK, South Korea, and Lebanon through several initiatives.



Above: SABIC Contributes to the development of resilient and clean natural resources.

Right: Solar PV and wind turbines generate energy.



## SCIENCE AND TECHNOLOGY EDUCATION

SABIC is committed to investing in science and technology education to support future innovation. Contributing to such programs helps us to expand a STEM (science, technology, engineering and mathematics) talent pipeline for SABIC's future workforce that increases the prospects for participants in Saudi Arabia and around the world.

At Teesside in the UK, we continued our Engineering Summer School Program for the third consecutive year. This year, we invited 18 engineering undergraduates from Teesside University's School of Science, Engineering and Design to participate in the three-day workshop, which featured a range of practical and theoretical exercises to boost confidence and develop the hard and soft skills needed to start careers in engineering.

In the Netherlands, we invited students from the Roncalli Scholengemeenschap school to visit our Bergen op Zoom facility for Girls Day in April. The event, developed in partnership with the Dutch Organization for Women in Higher Technical Education, introduced girls to science, technology, and information technology as career possibilities. Members of the SABIC Women's Network helped to facilitate a tour, and shared insights about technical educational paths and career opportunities.

In Vietnam, we expanded our signature Back to School program to sponsor eight students in partnership with ChildFund Vietnam in Hanoi and the Saigon Children's Charity in Ho Chi Minh City. Through this program, first launched in 2012, we pay educational expenses for the year, including tuition, uniforms, and textbooks. We encourage the students and their peers to excel in their education and give back to society as adults.



In the United States, SABIC sponsored the opening reception of the annual Society of Automotive Engineers Foundation gala in Detroit, helping to raise funds for STEM education programs. In addition to supporting a priority focus area, we benefited by raising our profile with strategic customers in the auto industry, including General Motors, Fiat Chrysler Automobiles, Ford, Nissan, North American Lighting, and many others.

In Saudi Arabia, we formed a strategic partnership with the Al Eradah Society for Talented People with Disabilities, holding interviews at the SABIC Academy to find young talent as part of the society's Ammar initiative. In its second year, the initiative targets creative talents in four regions of the Kingdom: Makkah, Madinah, Riyadh, and Eastern Province.



Above and left: SABIC is committed to investing in science and technology education to support future innovation and help it expand a STEM talent pipeline for SABIC's future workforce that increases the prospects for participants in Saudi Arabia and around the world.

# CSR PRIORITY AREA HIGHLIGHTS *continued*

## ENVIRONMENTAL PROTECTION

SABIC is dedicated to environmental stewardship. We always seek to improve our own performance, and encourage others to take actions that reduce pollution, conserve energy, and raise environmental awareness.

This year, SABIC contributed to the international response to the devastating floods in June and July that killed at least 200 people and destroyed more than 46,000 residential buildings in 30 prefectures in Japan. We pledged our support through the Japanese Red Cross Society.

In the Sittard-Geleen region of the Netherlands, our volunteers engaged with over 240 children, aged between 6 and 12 years old, as part of Waste Free Environment Week. The volunteers presented about how plastic is made, and the importance of recycling, reusing, and correct disposal.

In the Americas region, employees at Selkirk, New York, celebrated Earth Day by hosting a walk, hike, and run at Five Rivers Environmental Education Center. In September, SABIC employees in the United States, Canada, and Mexico joined the first annual World Clean-Up Day, reinforcing our commitment to communities.

In South Korea, 30 SABIC employees and their families gathered at Noeul Park in Seoul to plant more than 100 White Pink Salix trees. The initiative improved the environment while helping to absorb carbon dioxide.

In the UK, SABIC signed up to the UK Plastics Pact, a world-leading commitment to transform plastic packaging by keeping it in a circular economy and out of the environment. The pact is a unique collaboration of businesses from across the plastics value chain, government ministries, and NGOs to tackle the issue of plastic waste. SABIC joins household names, including Marks & Spencer, Tesco, Nestlé, and Unilever, in committing to a series of ambitious waste-reduction targets by 2025.



Above and Right: Advanced technologies and practices make agriculture more sustainable.



## HEALTH AND WELLNESS

By focusing on employees, families, and communities, SABIC can contribute to the health and wellness of society. To do this, we invest in physical and mental health, and promote good lifestyle choices.

This year in the UK, our Teesside facility signed up to the "Time to Change" pledge, promoting mental health at work. The team worked on the pledge for 18 months, earning nationwide recognition from Redcar & Cleveland Mind, the nonprofit that manages the campaign.

In India, we continued to support the They See, They Learn program, a large-scale, comprehensive eye-care program for children in Delhi, Bengaluru, Chennai, Vadodara, and Mumbai. The program improves education by ensuring that students aged 6 to 18 can clearly see blackboards and other learning materials in class. The program provides screening, vision correction, and free glasses, helping more than 150,000 students to date.

Also, in India, SABIC partnered with the NGO Trinity Healthcare on a health-checkup and awareness program for underprivileged children at schools in Anekal Taluk in Bengaluru. The program teaches hygiene, feminine hygiene, and water-sanitation awareness to students and teachers. To date, 1,150 schoolgirls between the 6 and 15 years old have completed the program.

In Brazil, the SABIC Women's Network teamed up with the Wellness Committee at Tortuguitas, Argentina, to promote breast-cancer awareness. Breast cancer is the second most common cancer for women, second to skin cancer, with one in eight women being diagnosed with the disease in their lives. Both women and men wore pink ribbons – the international symbol of breast-cancer awareness – and shared fliers to educate employees.

As part of a broader strategy to improve public health in line with Saudi Vision 2030, in November, SABIC was a strategic partner of the Riyadh International Marathon, an event organized by the General Sport Authority as part of the Community Sports Project. More than 30,000 participants, including professional runners and athletes with special needs, participated in this year's event.

In the UK, SABIC's ongoing efforts to improve health and well-being programs were recognized with two awards at the Better Health at Work award annual ceremony in March, including earning "ambassador" status, the highest available award, and the "continuing excellence" standard.

## RAISE PRIORITY FOCUS AREAS

<p>SCIENCE AND TECHNOLOGY EDUCATION</p>	<p>HEALTH AND WELLNESS</p>
<p>ENVIRONMENTAL PROTECTION</p>	<p>WATER AND SUSTAINABLE AGRICULTURE</p>

## CSR PRIORITY AREA HIGHLIGHTS *continued*

### WATER AND SUSTAINABLE AGRICULTURE

Around the world, people are increasingly aware of the importance of protecting and preserving the water supplies that support life on Earth. SABIC is committed to raising awareness of water conservation and advancing agricultural sustainability.

In Saudi Arabia, we collaborated with the Ministry of Environment, Water, and Agriculture to fund, build, and operate the Estidamah Agriculture Research Center. The center researches climate control, irrigation strategies, soil-less agriculture, crop management, and integrated pest management. This year, it focused on water-use efficiency and food quality, hosting more than 250 visitors – including farmers, investors, government agencies, academics, and corporate leaders. The center highlighted SABIC's activities and promoted the latest technologies for greenhouses in the arid region.

In the UK, we helped fund the Greatham Creek flood defense scheme near North Teesside, which will reduce the risk of flooding to 350 homes and 32 businesses in Port Clarence and the Seal Sands industrial complex. The project also created 50 hectares of new wildlife habitat.

In Brazil, we supported the Forest Builders Initiative, raising awareness of local forest conservation. The project invited the local community to plant native seedlings in the Santa Genebra forest. SABIC donated 1,500 native Atlantic Forest Biome seedlings, which are found in south Brazil.

SABIC partnered with the Arab Fertilizer Association, the Giad Industrial Group, and the Sudanese Ministry of Agriculture to host an Agricultural Awareness Caravan in the Sudan's River Nile State, as part of the association's strategy to improve agricultural productivity, promote cooperation, and achieve Arab food security. The caravan, a partner of the Saudi Ministry of Environment, Water and Agriculture, helped identify potential investment opportunities in the state.

This year, SABIC Lebanon partnered with Rotary Lebanon to help install drinking-water filtration-and-cleaning systems to help 20 public schools in the country access clean and safe water.

In South Korea, a volunteer team from Chungju has, every year since 2014, helped to clean the South Han River. The river, the largest in Korea, running through Seoul and several other major cities, supplies drinking water to over 20 million Koreans. Some 30 employees joined the effort this year.



Above and Right: SABIC is committed to raising awareness of water conservation and advancing agricultural sustainability.



## LOOKING FORWARD

Corporate social responsibility is one way we can use our resources and expertise – and harness the passion and dedication of our workforce – to benefit people and the planet. We continually explore new projects and focus areas that can help us increase this positive impact, and seek new public- and private-sector partners to expand our reach. Strategic CSR partnerships, such as with Junior Achievement Worldwide, enable us to develop innovative youth-education programs in local communities that can have a global impact. As we continue to implement our 2025 strategy, and support Saudi Vision 2030 and the UN's Sustainable Development Goals, we will increase employee engagement and leadership support for diverse CSR programs such as these.

As part of our ongoing effort to support communities, we continue to roll out a new global volunteering policy to global employees. By encouraging volunteering, we help local initiatives in our four focus areas, and strengthen collaborations with civil society and the public sector – enabling success while improving bonds between employees, the company, and our communities all over the world.

This year was the fifth for SABIC's Lights of Our Future Program, an initiative to educate students on the values of sustainable living. The program was implemented in Indonesia in 2018; we look to further expand the initiative to 21 countries in 2019. We will continue to develop partnerships with civil society and the public sector, focusing in particular on the Agricultural Awareness Caravan and the Environmental Caravan in the coming year.



Strategic CSR partnerships enable SABIC to develop innovative youth-education programs in local communities that can have a global impact.

# ADDENDUM

ABOUT THIS REPORT	90
ASSURANCE REPORT OF THE INDEPENDENT AUDITOR	91



# ABOUT THIS REPORT

SABIC is a publicly traded, global leader in diversified chemicals with a Global Headquarters in Riyadh, Saudi Arabia. We manufacture on a global scale and have five key geographies with innovation hubs in the United States, Europe, the Middle East, Southeast Asia, and Northeast Asia. Ranked among the world's largest petrochemicals manufacturers, 70 percent of the company's shares are owned by the Saudi government, with the remaining 30 percent traded on the Saudi stock exchange. Since SABIC began in 1976, we have grown rapidly and globally, with operations today in more than 50 countries and a global workforce of more than 33,000+ talented individuals. Our materials help our customers to build a better future in key end markets – construction, medical devices, packaging, agri-nutrients, electrical and electronics, transportation, and clean energy. Our materials provide the building blocks for building a better future through “Chemistry that Matters™”.

## ABOUT THIS REPORT REPORTING PERIOD, SCOPE AND BOUNDARIES

SABIC publishes three main annual reports: the Board of Directors Report and the Annual Report, which target the financial and investor audience, and this Sustainability Report, which targets a wide internal and external audience.

Published on 9th April 2019, this report covers SABIC's sustainability performance from January 1 to December 31, 2018. It includes all SABIC businesses and operations that are financially consolidated in our 2018 Annual Report, available at: [www.sabic.com/corporate/en/investorrelations](http://www.sabic.com/corporate/en/investorrelations).

Additional sustainability content, technical details and definitions are available in the Report Supplement document on our corporate sustainability web page: [www.sabic.com/sustainability](http://www.sabic.com/sustainability).

We believe external assessments improve our sustainability reporting, and for the last seven years we have used KPMG to increase our confidence in certain reported data. The limited assurance engagement includes absolute and intensity operational metrics: energy consumption, greenhouse-gas emissions, freshwater usage, material loss, flaring reduction and CO2 utilization, as well as selected corporate environment, health, safety, and security metrics, and compliance, as noted in the KPMG assurance report and marked by “\*” throughout the report. For compliance data, we have applied a more limited scope. Compliance data are reported for the 23,500 employees of SABIC and its wholly owned affiliates, but not for employees of SABIC's non-wholly owned manufacturing joint ventures (or affiliates) in Saudi Arabia.

## REPORTING FRAMEWORKS

To guide the selection of report content and improve report quality, we use the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines. The SABIC 2018 Sustainability Report was prepared in accordance with the “Core” option of the new Global Reporting Initiative Standards. A complete GRI Content Index can be found on the SABIC sustainability website. We also continue to be inspired by the International Integrated Reporting <IR> Framework to capture SABIC's journey toward creating economic, natural, human, and social value in both the long and short term.

This report serves as our official UN Global Compact (UNGC) Communication on Progress. An overview of how we are meeting our UNGC commitments and actions is available on the SABIC sustainability website.

# ASSURANCE REPORT OF THE INDEPENDENT AUDITOR



To: the readers of the Sustainability Report 2018

## OUR CONCLUSION

We have reviewed the data and the accompanying disclosures for the following indicators (further ‘the sustainability information’) in the Sustainability Report 2018 of Saudi Basic Industries Corporation (hereafter: SABIC) based in Riyadh:

### The total absolute values and the intensity values (per metric ton of product sales) at corporate level of the Environmental Footprint indicators:

- Energy consumption (p. 23, 42)
- Greenhouse gas emissions (p. 23, 40)
- Water usage (p. 23, 43)
- Material loss (p. 23, 44)

### The total percentages at corporate level of the Environmental Footprint indicators:

- Flaring reduction compared to 2010 (p. 23, 39)
- CO<sub>2</sub> utilization (p. 23, 39)

### The corporate values of the Ethics and Integrity indicators:

- Compliance concerns raised (p. 21, 23)
- Incidents closed (p. 21, 23)
- Violations found and addressed (p. 21, 23)
- Code of Ethics training completion (p. 21, 23)

### The corporate values of the Environmental, Health, Safety and Security indicators:

- Total Recordable Incident Rate (p. 23, 50)
- EHSS rate (p. 23, 49, 50)
- Hazardous substances released (p. 23, 53)
- Fatalities (p. 23)
- Process safety Total Incident Rate (p. 23, 50)
- Occupational Illness Rate (p. 50)

The data for the indicators included in the scope of our engagement are marked in the Sustainability Report with an asterisk (\*).

A review is aimed at obtaining a limited level of assurance. Based on our procedures performed, nothing has come to our attention that causes us to believe that the sustainability information is not prepared, in all material respects, in accordance with the reporting criteria as included in the section “Reporting period, scope, and boundaries”.

## BASIS FOR OUR CONCLUSION

We have performed our review on the sustainability information in accordance with Dutch law, including Dutch Standard 3000A ‘Assurance-opdrachten anders dan opdrachten tot controle of beoordeling van historische financiële informatie (attest-opdrachten)’ (Assurance engagements other than audits or reviews of historical financial information (attestation engagements)).

This review engagement is aimed at obtaining limited assurance. Our responsibilities under this standard are further described in the section ‘Our responsibilities for the review of the sustainability information’ of our report.

We are independent of SABIC in accordance with the ‘Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten’ (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands.

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

## REPORTING CRITERIA

The sustainability information needs to be read and understood together with the reporting criteria. SABIC is solely responsible for selecting and applying these reporting criteria, taking into account applicable law and regulations related to reporting.

The reporting criteria used for the preparation of the sustainability information are the applied internal reporting criteria as disclosed on page 90 of the Sustainability Report.

## SCOPE OF THE REVIEW OF THE GROUP

SABIC is the parent company of a group of entities. The sustainability information incorporates the consolidated information of this group of entities to the extent as specified in ‘Reporting period, scope, and boundaries’ on page 90 in the Sustainability Report.

Our group review procedures consisted of both review procedures at corporate (consolidated) level and at site level. Our selection of sites in scope of our review procedures is primarily based on the site's individual contribution to the consolidated information. Furthermore, our selection of sites considered relevant reporting risks and geographical spread.

By performing our review procedures at site level, together with additional review procedures at corporate level, we have been able to obtain sufficient and appropriate assurance evidence about the group's sustainability information to provide a conclusion about the sustainability information.

## RESPONSIBILITIES OF MANAGEMENT FOR THE SUSTAINABILITY INFORMATION

Management of SABIC is responsible for the preparation of the Sustainability Report in accordance with the reporting criteria as included in the section ‘reporting period, scope and boundaries’, including the identification of stakeholders and the definition of material matters.

# ASSURANCE REPORT OF THE INDEPENDENT AUDITOR *continued*

Management is also responsible for such internal control as Management determines is necessary to enable the preparation of the sustainability information that is free from material misstatement, whether due to fraud or error.

## OUR RESPONSIBILITIES FOR THE REVIEW OF THE SUSTAINABILITY INFORMATION

Our objective is to plan and perform the review in a manner that allows us to obtain sufficient and appropriate assurance evidence for our conclusion.

Procedures performed to obtain a limited level of assurance are aimed to determining the plausibility of information and vary in nature and timing from, and are less in extent, than for a reasonable assurance engagement. The level of assurance obtained in review engagements with a limited level of assurance is therefore substantially less than the assurance obtained in audit engagements.

Misstatements can arise from fraud or errors and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of users taken on the basis of the sustainability information. The materiality affects the nature, timing and extent of our review procedures and the evaluation of the effect of identified misstatements on our conclusion.

We apply the 'Nadere voorschriften kwaliteitssystemen' (NVKS, Regulations on quality management systems) and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We have exercised professional judgement and have maintained professional scepticism throughout the review, in accordance with the Dutch Standard 3000A, ethical requirements and independence requirements.

Our review included amongst others, the following procedures:

- Performing an analysis of the external environment and obtaining an understanding of relevant social themes and issues, and the characteristics of the company;
- Evaluating the appropriateness of the reporting criteria used, their consistent application and related disclosures in the sustainability information. This includes the reasonableness of estimates made by the management board;
- Obtaining an understanding of the reporting processes for the sustainability information, including obtaining a general understanding of internal control relevant to our review;

- Identifying areas of the sustainability information with a higher risk of misleading or unbalanced information or material misstatements, whether due to fraud or error. Designing and performing further assurance procedures aimed at determining the plausibility of the sustainability information responsive to this risk analysis. These procedures included among others:
  - Interviewing management and relevant staff at corporate and local level responsible for the sustainability results;
  - Interviewing relevant staff responsible for providing the information for, carrying out internal control procedures on, and consolidating the data in the sustainability information;
  - Determining the nature and extent of the review procedures for the group components and locations. For this, the nature, extent and risk profile of these components are decisive. Based thereon we selected the components and locations to visit. The visits to 7 production sites in the Kingdom of Saudi Arabia, Europe, United States of America and China are aimed at, on a local level, validating source data and evaluating the design and implementation of internal controls and validation procedures;
  - Obtaining assurance information that the sustainability information reconciles with underlying records of the company;
  - Reviewing, on a limited test basis, relevant internal and external documentation;
- Performing an analytical review of the data and trends in the information submitted for consolidation at corporate level;
- Evaluating the consistency of the sustainability information with the information in the Sustainability Report which is not included in the scope of our review;
- Evaluating the presentation, structure and content of the sustainability information;
- To consider whether the sustainability information as a whole, including the disclosures, reflects the purpose of the reporting criteria used.

We communicate to the Management of SABIC regarding, among other matters, the planned scope and timing of the review and significant findings that we identify during our review.

Amstelveen, 9 April, 2019  
KPMG Sustainability,  
Part of KPMG Advisory N.V.

W.J. Bartels, Partner