CHEMISTRY THAT MATTERS™

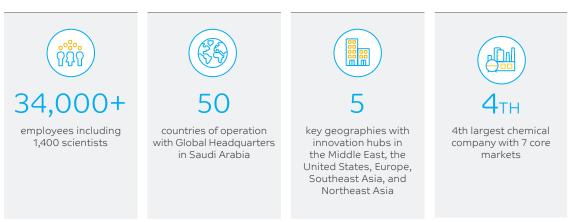


# BUILDING A BETTER FUTURE

SUSTAINABILITY REPORT 2017 EXECUTIVE SUMMARY

### OVERVIEW

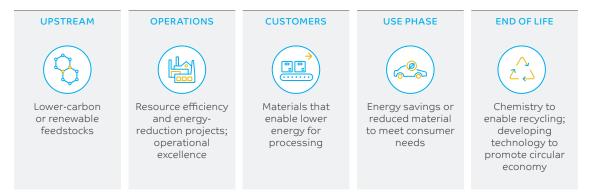
#### THIS IS SABIC



#### IMPRESSIVE YEAR-ON-YEAR GROWTH



#### SUSTAINABILITY IN OUR VALUE CHAIN



### **OUR | FADERSHIP**

We create the solutions that can provide the

answers to global challenges, such as growing demand for houses, vehicles, and food - while



**DR.ABDULAZIZ** SALEH ALJARBOU Chairman



YOUSEF ABDULLAH **AL-BENYAN** Vice Chairman and Chief

Executive Officer

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 reducing impact on our overstressed ecosystem. Nations Global Compact and its 17 Sustainable Development Goals.

### STRATEGY AND MATERIALITY

We have built our success on a combination of strong performance and comprehensive collaboration with internal and external stakeholders, and our customers – to understand their challenges and meet their needs amidst changing global markets.

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. Our most recent analysis was in 2013. Since then we have developed metrics and reported on progress for the top five material issues.

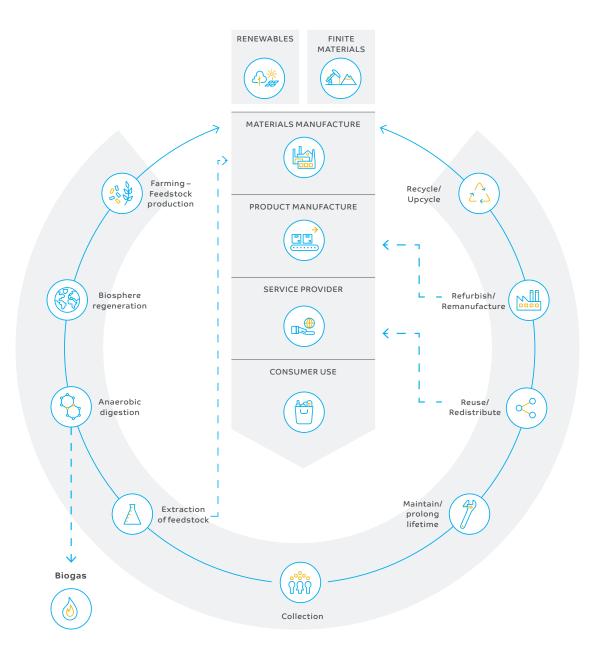


### SABIC'S MOST MATERIAL SUSTAINABILITY ISSUES

We will refresh our materiality analysis in 2018.

### CIRCULAR ECONOMY AT SABIC

SABIC has seen first-hand the benefits of circular-economy projects, and we are committed to increasing the efficiency of our resource use and applying circular principles throughout our operations and product design.



 We reuse operational wastes at our United affiliate's CO<sub>2</sub> plant in Saudi Arabia, the world's largest facility of its kind with capacity to capture and purify up to 500,000 metric tons of CO<sub>2</sub> per year.  SABIC offers both renewable polyethylene (PE) and polypropylene (PP) that do not compete with the food chain. Using renewable feedstock reduces the amount of fossil fuel depletion compared to conventional polyolefin created from fossil feedstock, such as naphtha.

### INNOVATION AND SUSTAINABILITY SOLUTIONS

#### **2017 HIGHLIGHTS**

- Qualified four new sustainability solutions.<sup>1</sup>
- Assessed the sustainability benefits and risks of more than 80 innovation projects.
- Introduced a new, highperformance synthetic-rubbers portfolio for outdoor applications, including SABIC<sup>®</sup> EPDM (ethylene propylene diene monomer), SABIC<sup>®</sup> BR (polybutadiene) and SABIC<sup>®</sup> PIB (polyisobutylene), which enable excellent durability and weather resistance of final products.
- Launched several disruptive material-solutions such as THERMOCOMP<sup>™</sup> Additive Manufacturing compounds based on acrylonitrilebutadienestyrene (ABS), polyphenylene ether(PPE), polycarbonate (PC) and Polyetherimide (PEI) resins for large-format additive manufacturing that can produce oversized complex parts with speed and precision by optimizing material use and improving process efficiency, drawing on our extensive expertise in material chemistries, formulations, production, and part printing.





Above: Innovation fuels sustainability and business performance. Right: SABIC's unique materials drive

growth in additive manufacturing.



#### **PERFORMANCE METRICS**

TOTAL PATENT PORTFOLIO<sup>2</sup> NEW PATENT FILINGS IN 2017 TOTAL SUSTAINABILITY SOLUTIONS

11,534



82

#### Notes

<sup>1</sup> Pending advisory panel review.

<sup>2</sup> 2017 patent portfolio number (11,534) is lower due to SABIC's decision to drop off more than 1,000 patents that no longer add strategic value, resulting in savings of around US\$2 million in patent-maintenance fees. Further, the drop in new patent filings is primarily because of the strategic decision to file patents on projects that are business critical and at an advanced stage.

### SOLUTIONS IN OUR KEY MARKETS

#### TRANSPORTATION



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

Our STAMAX<sup>™</sup> long-glass-fiber-filled polypropylene (LGFPP) resin, combined with support for parts design, performance simulation, and testing, enabled Chery to produce 40 percent lighter tailgate structure.

SABIC helped BMW to optimize an instrument panel carrier for its 2017 MINI Countryman. STAMAX resin and foam injection molding enabled 15 percent reduced part weight, less material use, and accelerated production.

#### **AGRI-NUTRIENTS**



Improving food security

This year, SABIC's Agri-Nutrients business introduced an innovative class of nitrogen sulfate (NS) fertilizer products consisting of urea and calcium sulfate (CS). This product delivers nitrogen, a primary nutrient, with two secondary nutrients for plant health: sulfur and calcium. In addition, it also reduces the environmental impacts from farms and promotes farmer safety.

#### CONSTRUCTION



Driving sustainable, cutting-edge building designs

SABIC's new COOL energy-saving pre-painted galvanized iron (PPGI) roof reduces carbon emissions by up to 28 percent.<sup>3</sup>

The unique PP-UMS, a completely new generation of polypropylenes, offer very high melt-strength and outstanding foamability.

CERAFILTEC selected our NORYL<sup>™</sup> resin to produce all-plastic enclosed water-filtration module with a life span of 20 years.

#### PACKAGING

Preserving product value while minimizing environmental impacts

Through close collaboration with industry partners, SABIC devises plastic-packaging solutions that offer great value with minimum resources and extremely lightweight designs that protect the product, help manufacturers serve their customers, and safeguard the environment.

This year SABIC introduced a new range of polypropylene impact copolymers offering shorter cycle times and weight reductions through thin-wall manufacturing.





Enabling slimmer and smarter consumer electronics designs

TactoTek used SABIC's LEXAN<sup>™</sup> clear polycarbonate resin and hard-coated polycarbonate film for award-winning 3D touchscreen surfaces.

Our laser-direct structuring portfolio helps customers to miniaturize smart devices.

Our new LEXAN™ EXL9414 specialty copolymer resin material for phone battery covers meets tough fire hazard tests.

#### **CLEAN ENERGY**



Advancing energy efficiency and renewables

Two of SABIC's blow-molding high density polyethylene (HDPE) grades, B1054 and BM1052, offer structural support for floating solar panels.

SABIC has collaborated with strategic partners to specify successfully our UTF120 ULTEM<sup>™</sup> film in automotive-capacitor applications, accelerating the development of electric vehicles.

#### Notes

<sup>3</sup> Internal analysis was based on ISO14040 principles, but did not undergo critical peer review.

### RESOURCE AND ENERGY EFFICIENCY

#### **2017 HIGHLIGHTS**

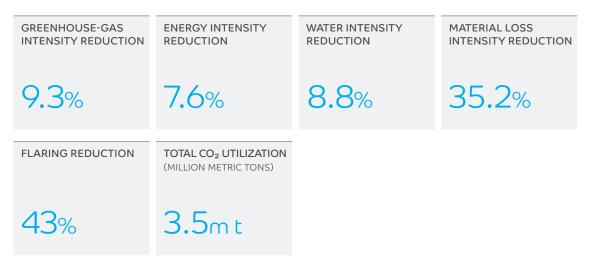
- Commissioned a new combined heat and power cogeneration plant at Mt. Vernon, Indiana, that provides 80 percent of the site's electricity and steam and eliminates the use of coal.
- Fully implemented SABIC's energy policy, which is aligned with the Saudi Energy Efficiency Program.
- Conducted opportunity assessments for megaprojects.
- Received the United Nations first Clean Development Mechanism greenhouse-gas reduction credits in Saudi Arabia for projects at our Al-Bayroni affiliate.
- Increased throughput at our CO<sub>2</sub> utilization plant; improved the availability of CO<sub>2</sub> for methanol production. Total CO<sub>2</sub> utilization decreased as a result of lower fertilizer production in 2017.



Above: Cogeneration plant at Mt. Vernon, Indiana.

#### **KEY METRICS AND TRENDS**

These metrics provide the changes in performance compared to 2010 for greenhouse-gas emissions, energy use, freshwater use, material loss, and flaring reduction. CO<sub>2</sub> utilization is the absolute usage in 2017. The intensities are based on units per metric ton of external product sales.



#### LOOKING FORWARD

- Implement ISO 50001 standard at our Hadeed, Kemya, and Sharq affiliates in 2018.
- Work toward the 2019 Saudi Energy Efficiency Program (SEEP) targets.
- Continue our megaproject sustainability assessment efforts.
- Continue studying ways to increase the share of clean energy in SABIC's overall portfolio.

## EHSS AND PRODUCT SAFETY

#### **2017 HIGHLIGHTS**

- Recorded a 21 percent decrease in annual EHSS rate, marking a strong annual performance.
- Achieved a 14 percent decrease in our Total Recordable Incident Rate, our lowest rate and best annual performance ever.
- Launched a comprehensive process safety competency development program at Jubail, Saudi Arabia, created in partnership with Texas A&M University's Mary Kay O'Connor Process Safety Center.
- Completed systematic improvements to our Customer Declaration Portal in response to a record 12,669 customer product-safety inquiries.

#### KEY ACTIONS TAKEN TO IMPROVE OUR EHSS PERFORMANCE

- As part of SABIC's multi-year EHSS transformation effort, selected nine SABIC facilities in diverse regions, to identify individual and common opportunities for improvement.
- In 2017, SABIC developed a classification management system for product safetyrelated incidents for ease of reporting.
- Advanced our Responsible Care<sup>®</sup> initiatives, including efforts to proactively manage risk from high-hazard products.

#### KEY METRICS AND ANNUAL TRENDS



RECORDABLE INCIDENT RATE

**↓14%** 

CUSTOMER PRODUCT-SAFETY INQUIRIES

12,669

### SUPPLY CHAIN AND PROCUREMENT

#### **2017 SUPPLY CHAIN HIGHLIGHTS**

- Earned a spot on the Gartner Supply Chain Index for the first time. SABIC ranked 75th overall and sixth among chemical companies.
- Developed a new supply-chain carbonfootprint calculator model to identify the highest-impact supply chain improvement projects.
- Achieved Safety and Quality Assessment System (SQAS) compliance of 100 percent for our liquids suppliers and 92 percent for solids.
- Advanced supply-chain sustainability from concept to measurement and management with notable results: safer and more-efficient transport. For instance, the NCC Fajr, our state-of the-art tanker, delivers products with 27 percent less greenhouse gas emissions than industry standard.
- Operating for first full year two vessels driven by liquified natural gas and two driven by ethane that resulted in a 20 percent reduction of emissions per ton-kilometer of product transported.

#### 2017 PROCUREMENT HIGHLIGHTS

- Trained buyers on sourcing according to highest EHSS, quality, and social responsibility requirements.
- Required all new suppliers to undergo our SABIC Due Diligence Program.
- Registered 7,000 suppliers through the new process with more than 1,100 of those undergoing additional due diligence. Nine received a thorough audit as the final phase of due diligence.
- Planned to work with our suppliers to build support for our sustainability targets.

### HUMAN CAPITAL DEVELOPMENT

#### **PERFORMANCE METRICS**



#### 2017 HIGHLIGHTS

- Embarked on the SABIC
  Leadership Way journey to
  build leadership capabilities in
  alignment with 2025 strategy.
- Supported learning at every level through more than 6,000 classroom and online courses developoed by SABIC Academy.
- Earned Top Employer Institute certifications in China, India, Japan, Singapore, and South Korea.
- SABIC Pulse Dialogue Survey for all employees.
- Hosted our third Leadership Program and first SABIC Human Resources Forum in alignment with Saudi Vision 2030.





Left: SABIC is a global and diverse organization Above: Employees at SABIC Plastic Applications Development Center (SPADC) in Riyadh, Saudi Arabia.

### SOCIAL IMPACTS AND COMMUNITY RELATIONSHIPS

#### 2017 HIGHLIGHTS

- Finalized the development of our regional RAISE committees in order to align global initiatives with local efforts.
- Evaluated all of SABIC's Corporate Social Resposibility initiatives according to RAISE criteria: Reputation, Audience, Innovation, Strategy, and Endurance.



Above: Students benefiting from the Lights of Our Future program in China. Right: Children collect litter in the Netherlands.

#### RAISE PRIORITY FOCUS



#### **RAISE PRIORITY FOCUS AREAS**

- Science and Technology Education: Through the "Back to School" program, SABIC and its partners have distributed more than 80,000 bags of much-needed school supplies, organized workshops on chemistry and technology, and undertaken numerous projects to repair schools.
- Environmental Protection: In Singapore, more than 170 employees devoted 2,000 hours of volunteer time for the "Lights of Our Future" program, educating students on the values of sustainble living.
- Health and Wellness: Thousands of participants, including employees from SABIC and neighboring companies in India, collaborated with local NGOs and collected 1,500 units of blood supporting World Blood Donor Day.
- Water and Sustainble Agriculture: In the United Kingdom, the Environment Agency, with the support of SABIC, begun to work on a US\$15.6 million project to protect homes, businesses, and wildllife from the risk of flooding.



#### THROUGH RAISE IN 2017 CSR initiatives (by spend)

COMMUNITY GIVING IN 2017 (US\$) TOTAL GIVING OVER PAST 16 YEARS (US\$)

57.5m

850m +

### PERFORMANCE SUMMARY

REPORT SECTION	UNIT	2013	2014	2015	2016	2017
ETHICS + INTEGRITY						
Compliance concerns raised <sup>1</sup>	Number	131	117	123	94	114
Incidents closed <sup>1</sup>	Number	129	106	103	94	97
Violations found (addressed) <sup>1</sup>	Number	54	42	56	52	58
Training completion <sup>1</sup>	Percent	97	98	98	99	99
INNOVATION AND SUSTAINABILITY SO						
Total patent portfolio	Number	9,791	10,640	10,960	12,191	11,534
Sustainability solutions	Cumulative number	32	45	68	78	, 82
Innovation project sustainability assessments	Number	719	812	767	587	Discontinue
<b>RESOURCE AND ENERGY EFFICIENCY</b> Greenhouse-gas emission intensity	tCO₂eq/t product sales	1.32	1.28	1.25	1.24	1.23
Energy intensity	GJ/t product sales	17	17	17	17	17
Water intensity	m³/t product sales	2.8	2.7	2.6	2.6	2.7
Material-loss intensity	t/t product sales	0.109	0.099	0.086	0.072	0.078
Flaring reduction compared to 2010 <sup>2</sup>	Percent	30	49	40	55	43
CO <sub>2</sub> utilization	Million t	2.5	2.7	3.3	3.6	3.5
HUMAN CAPITAL DEVELOPMENT	Percent of workforce	7.9	7.8	7.9	7.7	7.2
Learning programs	Participants	NA	NA	30,835	31,062	24,944
SOCIAL IMPACTS AND COMMUNITY R	·	NA	32.7	53.9	46.4	57.5
SUPPLY CHAIN						
	Percent of suppliers	NA	NA	100	100	100
Safety and Quality Assessment System – liquids	Percent of suppliers Percent of suppliers	NA	NA	100	100	100 93
Safety and Quality Assessment System – liquids SQAS – solids Suppliers registered through Global						
SUPPLY CHAIN Safety and Quality Assessment System – liquids SQAS – solids Suppliers registered through Global Procurement Due Diligence Program Suppliers with additional GPDDP requirements	Percent of suppliers					93

- / /- /						
EHSS rate <sup>3</sup>	Incidents/200,000 hours worked	0.92	0.69	0.48	0.63	0.50
Total Recordable Incident Rate	Incidents/200,000 hours worked	0.17	0.19	0.13	0.14	0.12
Fatalities	Number	0	0	0	14	1
Process Safety Total Incident Rate	Incidents/200,000 hours worked	0.02	0.02	0.01	0.02	0.01
Hazardous substances released	Metric tons (t)	201	2,614	192	61	105

<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.

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