



# ANNUAL REPORT 2017

Braskem 

# A YEAR OF TRANSFORMATION

In 2017, Braskem celebrated its 15th anniversary, which was full of achievements and challenges. Looking forward, we have begun a new chapter that merges our innovative and interpersonal way of working.

Although we are a young company, we have a solid growth strategy and a corporate responsibility that allows us to advance as a significant player in the global petrochemical industry.

Throughout the report, you will learn about the focus of key projects and accomplishments that happened during 2017, as well as understand how we work in a manner committed to sustainability, innovation, and professional growth of our people. [102-1](#)

Enjoy your reading



# HIGHLIGHTS FOR THE YEAR



Approval by the Board of Directors of **USD 675 million** for the construction of the sixth Polypropylene (PP) production unit in La Porte, Texas.



**Approval** of our first human rights violations risk matrix, and its inclusion in the corporate risk matrix, monitored by our executives and the Board of Directors.



Consolidated **EBITDA** reached **BRL 12.3 billion** last year, up 7% from 2016.



**Record production** of Polyethylene, Polypropylene, Ethylene, Butadiene, and Gasoline.



Start of operations of the **new Ultra-High-Molecular-Weight Polyethylene (UHMWPE)** plant in the United States.



Continuation of improvements to the **Corporate Governance initiative**, and reinforcement of Compliance initiatives through training, internal and external audits, assessment and monitoring of risks and controls.



**The Industrial Complex in Mexico** completed its first full calendar year of operation with an average occupation rate of 88%.



**Independent Management** of the Ethics Line Channel.



Braskem completed **15 years** as a company



Braskem Labs becomes a platform with three programs focused on **innovative and sustainable business acceleration**.



**Creation of three working groups** focused the following: Gender, LGBT (Lesbian, Gay, Bisexual and Transgender), Race, and Ethnicity.



Implementation of the **Sustainable Procurement Tool**, which incorporates sustainability criteria into the selection of suppliers in procurement processes.



Participation in the Global Volunteer Program, including over **359 Braskem professionals** from Brazil, Mexico, and the United States, and **497 outside volunteers**.



Record net income of **BRL 4 billion**.

For the first time, we are part of CDP WATER's **"A List"** and for the second time, of the CDP CLIMATE's **A List**, which recognizes the **best publicly traded companies** in the world regarding environmental management.

# MESSAGE FROM THE BUSINESS LEADER

102-14

## CREATE VALUE FOR ALL

2017 was a milestone year for Braskem. Not only because we completed 15 years of achievements and learning opportunities. We are excited to approach the beginning of a new growth cycle based on our goals to offer sustainable solutions through chemicals and plastics, and become a more global and influential leader company in the petrochemical industry.

We believe in the power of people and encourage entrepreneurship to guide our actions, thus creating value for all. Ours is a people-oriented, forward-looking environment, which cultivates solid relationships, internally, throughout our organization, as well as with our clients and stakeholders. These characteristics were shaped into a new visual identity, celebrated on the company's 15th anniversary.

## GOVERNANCE AND COMPLIANCE

We continue to improve our global Compliance system in a meaningful and structured way, through various actions and initiatives that are ethical, integral, and transparent across the Company. In June 2017, our global agreement concerning the operation *Operação Lava Jato*, concluded in December, was finally approved, and we continue to collaborate with the authorities.

Likewise, our governance has undergone improvements. Our Board of Directors has increased the number of independent members, with renowned market experience and judgment capacity, to six out of a total of eleven members.



## In a year that presented many challenges, Braskem showed strong results, with a record net income of BRL 4 billion

### RECORD RESULTS, EFFICIENCY, AND GLOBALIZATION

Our 2017 results confirm that we are on the right track through implementation of our geographic diversification strategy and the continuous search for gains in operational efficiency. Our resilience and ability to face diverse scenarios have brought significant results to all shareholders.

In a year that presented many challenges, Braskem showed strong results, with a record net income of BRL 4 billion, Consolidated EBITDA reached BRL 12.3 billion last year, a 7% increase over 2016. In US dollars,

EBITDA reached a new historic level of USD 3.9 billion, representing a growth of 17% over 2016.

In 2017, Braskem continued its excellent industrial performance, presenting significant records in production for some of its main products. The utilization rate of the cat crackers in Brazil was 94%, representing a 2% increase from 2016, with record production of ethylene, butadiene, and gasoline.

Production of polyolefins in Brazil, both polyethylene and polypropylene, also hit its highest historical mark. In the US and Europe, the utilization rate was 97%. In Mexico, the Industrial Complex completed its first full calendar year in operation, and had an average occupancy rate of 88% in 2017.

On the commercial side, sales of Braskem resins totaled 3.5 million tons in the Brazilian market, a 4% increase over 2016, with record sales of poly-

ethylene. Braskem's share in the Brazilian market was 69% in 2017.

In the North American and European markets, sales reached 2.1 million tons of polypropylene, a 5% increase over 2016. In Mexico, polyethylene sales totaled 551,000 tons, while export sales totaled 418,000 tons, resulting in a total sale of 969,000 tons - an increase of 124%.

In this scenario, net consolidated revenue was BRL 49.3 billion, up 3% from 2016. Of this total, operations generated by international units and exports from Brazil accounted for 47% of revenue. Net revenue was USD 15.4 billion, up 12%.

From a strategic standpoint, 2017 was highlighted by the completion of the raw material flexibility project, which produced 15% of ethylene, using ethane as raw material at the petrochemical plant in Bahia. Ethane im-

ported by ship, arrived at the port of Aratu at the end of November, enabling the first flex operation in Camaçari.

An important endorsement of our strategy came from the Board of Directors in June 2017 when they approved the construction of a new polypropylene (PP) plant at the La Porte complex in Texas. With an investment of USD 675 million, the project will add 450,000 tons per year of production, in line with the search for a more diverse raw material matrix and geographical expansion in the Americas.

## SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

As a company, we believe in and promote, the principles for all individuals, and the environment. Since our inception, we have been committed to the concept of sustainable development. As a member of the United Nations Global Compact since 2007, we have actively participated in building the Sustainable Development Goals, principles that encompass compliance through human rights.

Our commitment brought to these principles has enabled us to realize significant internal achievements, as well as external recognition in 2017. For the first time, we were included in the CDP WATER's "A List", which recognizes the best publicly traded companies in the world, for their prudent use of water. We were the only Brazilian and Latin American company to obtain the highest score in this ranking. In addition, we again confirmed our participation in the 13th portfolio of B3's Corporate Sustainability Index (ISE),

which recognizes Brazil's publicly traded companies in managing sustainable development, and gathers those with the best indicators in economic efficiency, environmental balance, social justice, and corporate governance.

In 2017, we continued to develop our diversity practices, with the formation of three working groups focusing on gender, LGBTQIA (Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, and Asexual), Race, and Ethnicity. We also defined our first risk matrix on violations of human rights, facilitating the immediate inclusion of this issue in the corporate risk matrix, which is monitored by our executives and the Board of Directors. Among the topics addressed this year, we focused on the logistics of ethanol, and recycling chains for the protection and promotion of human rights, as well as compliance and corporate ethics in our relationships.

## OUTLOOK

Global demand for petrochemical products continue to grow in a very healthy way, not only because of the competitive advantages of these products compared to other materials, but thanks to the relevant flow of innovations that the industry has brought to the markets. As a result of Brazil's political uncertainties, particularly the lack of structural reforms, there is a risk in the medium and long term to the country's economic performance. In addition, the global petrochemical market could be impacted by the trade war between the United States and China.

In a global context, our strategy is based on the search for advances in productivity and competitiveness, while focusing on operational efficiency and cost management; in diversification of raw materials; increasing participation of gas and maintaining flexibility of assets. We have expanded Braskem's global foot-

**Our strategy is based on  
the search for advances  
in productivity and  
competitiveness, with a focus  
on operational efficiency**

print and strengthened our image and reputation among its Members, Clients, Suppliers, Society, and Investors, through advances in compliance, sustainability, innovation, and people management.

Finally, I would like to thank our Shareholders and clients for their trust in Braskem. These partnerships are continual motivators in our pursuit to excellence. I would also like to thank our Members, Partners, and Suppliers, for their dedication and competence, and to recognize their contributions, which have made our achievements a reality, and help us to continue our efforts to promote a more global Braskem.

**Fernando Musa**

# BRASKEM

## CHEMISTRY THAT TRANSFORMS

We are a global, people-oriented company with a passion for service and a clear vision for the future



# 15 years of MAJOR TRANSFORMATION

2002



Braskem is formed by the merge of six Odebrecht Group companies and the Mariani Group, and began its activities as the largest petrochemical company in Latin America. In the same year, its shares were listed on the São Paulo Stock Exchange (currently B3) and New York (NYSE).

Today, Braskem is the largest petrochemical company in the Americas, and the fifth largest in the world in terms of production capacity of thermoplastic resins (Polyethylene, Polypropylene, and Polyvinyl Chloride) and basic petrochemicals (such as Ethylene, Propylene, Butadiene, and others). Born from the integration of Brazilian petrochemical assets, we have taken important steps toward internationalization, and we are steadily advancing towards building a global company. What we have achieved throughout our 15-year history could have only been realized through dedication, effort and the constant pursuit of innovation, through sustainable solutions. [102-2]

2006



Braskem acquires Politeño (third largest producer of polyethylene in Brazil) and launches the first Brazilian thermoplastic resin with nanotechnology, confirming its position as a leader in innovation in the sector.

2005



Braskem has become part of the Corporate Sustainability Index (ISE) of the São Paulo Stock Exchange (currently B3).

2004



Implementation of the Braskem Innovation Program encourages the development of projects with new technologies and applications, and signing the Declaration on Cleaner Production, which is part of the United Nations Environment Program (UNEP).

2003



Braskem lists its shares on the Madrid Stock Exchange and was ranked the Most Valued Company on the New York Stock Exchange.

2007



Launch of the project to build a plant for the production of Green Polyethylene, Braskem's exclusive product made from renewable sources produced from sugarcane.

2008



Inauguration of the Paulínia (SP) unit in partnership with Petrobras, the Company's first greenfield project!<sup>1</sup>

<sup>1</sup> Term to determine the investment in a company still in its early stages

2009



Laying of the foundation stone of the Green Polyethylene plant in Triunfo (RS), and formation of the Braskem Idesa joint venture to produce Polyethylene in Mexico.

2012



In 10 years, Braskem reached 36 industrial units and 7600 members. A PVC plant in Marechal Deodoro (AL), and a new butadiene plant in Triunfo (RS) were established.

2011



Acquisition of two plants in the United States and two in Germany for the production of Polypropylene.

2010



Acquisition of Quattor, start of production of Green Polyethylene on an industrial scale, and launch of the "I'm green™" seal to be applied to products that use the raw material in its composition. The acquisition of the polypropylene assets from Sunoco Chemicals, in the United States, initiates the Company's internationalization process.

2013



Braskem became part of the first portfolio of the Dow Jones Sustainability Index for emerging countries.

2014



The Company is chosen by the American magazine Fast Company as one of the 50 most innovative in the world.

2015



Launch of Braskem Labs, a project to encourage entrepreneurs to develop innovative solutions for the plastics industry. First year as a sponsor for the Brazilian Paralympic track team.

2017



To celebrate its 15<sup>th</sup> anniversary, Braskem launched its new visual identity, reinforcing the continuity of the petrochemicals global expansion cycle. In addition, the new Ultra-High-Molecular-Weight Polyethylene (UHMWPE) plant is established in La Porte, Texas.

2016



Opening of the Braskem Idesa Petrochemical Complex in Mexico. In partnership with Made in Space, Braskem takes its Green Polyethylene to the International Space Station. In addition, the Company became the first Brazilian representative to join CDP Climates' "A List".<sup>2</sup>

<sup>2</sup> CDP is an international organization that assesses best business practices against climate change

## OUR WAY OF BEING BRASKEM

In 2017, Braskem completed 15 years of operation as a growing global Company, and was recognized by clients in nearly 100 countries all over the world.

To reflect this new cycle, we adopted a new visual identity. This new identity expresses our values and commitments to all our stakeholders. It represents a global, people-oriented company with a passion for service and a clear vision for the future. This is what allows us to create value with our clients, and to improve people's lives. The chosen design contains important characteristics that represent Braskem, such as resilience, focus, and transparency. The symbol resembles the letter "B" and forms an arrow, indicating the Companies strategy for the future. The colors blue and yellow represent aspects such as global scope, sustainability, strength of human relations.

Our new identity represents our vision to look toward the future, with the conviction that we must serve our market with responsibility and competence, while keeping our inspiration high and our hearts open to the challenges ahead.

## BRAND MANIFESTO

### What is the chemistry of change?

For us, it's the combination of people who are passionate for the new and the unexpected. It is about creating bonds and working together to improve lives.

**We are Braskem**, a human-oriented company with the passion to transform. We are a team of believers, who share our knowledge to empower the ones around us. And we know that human connections are limitless.

**As individuals**, we are encouraged to think, speak up and take action. As a team, we share a spirit of collaboration and optimism. We are committed to serve and to **build strong ties with our clients and all stakeholders**.

**Sustainability is at the core of our company**. It's our way of generating real and positive transformation. For us, this is only possible with a bold, brave and bonding attitude, where relentless forward thinking is valued, always.

**We understand our role in the world:** To challenge our market with responsibility and competence, creating positive impacts for all. Most importantly, **we take pride in what we do**, keeping our inspiration up and our hearts open for the next challenges. After all, **this is the chemistry of change**.



# MAP OF OPERATIONS

## GLOBAL PRESENCE [102-4, 102-6, 102-7](#)

With an increasingly global performance, we have industrial operations in four countries (Brazil, United States, Mexico, and Germany), as well as 16 regional offices in the main global economic centers that serve our Clients in over 100 countries. Braskem is the largest producer of thermoplastic resins (Polyethylene, Polypropylene, and Polyvinyl Chloride) in the Americas, as well as chemicals and basic petrochemicals, such as ethylene, propene,

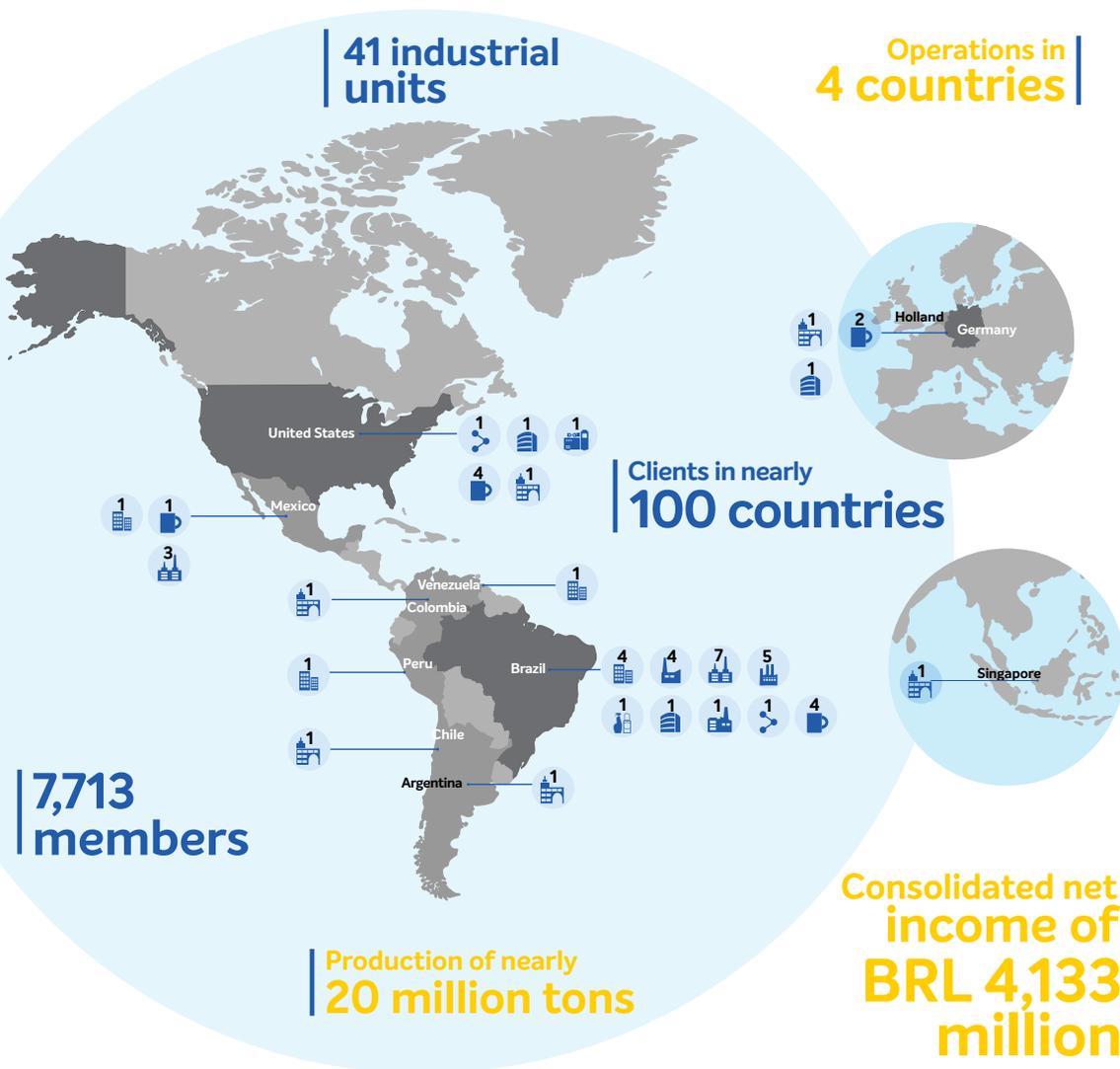
butadiene, among others. We are also the main global manufacturer of biopolymers, with an annual production rate of 200,000 tons of "I'm green™" Green Plastic, a Polyethylene produced from sugar cane ethanol, that is 100% renewable sourced. Our products serve several markets including: food packaging, civil construction, industrial, retail, automotive, hygiene and cleaning, agribusiness, health, among other segments.

16 regional offices

41 industrial units

Operations in 4 countries

- Industrial Units
- Basic Petrochemicals
- PVC and Chlorine Soda
- Polyethylene
- Polypropylene
- PE + PP
- GREEN PE
- UTEC
- Administrative Offices
- Administrative Headquarters
- Sales Offices
- Innovation and Technology



# BUSINESS MODEL

## Our Resources

## Activities



**FINANCIAL**  
NET EQUITY OF **BRL 5,690 MILLION**  
**BRL 2.3 BILLION** INVESTED

GROSS DEBT OF **USD 7,649 MILLION**, 9% LESS THAN THE PREVIOUS YEAR



**NATURAL**  
CONSUMPTION OF **3.98 m<sup>3</sup>/t** OF WATER AND **10.56 GJ/t** OF ENERGY PER TON PRODUCED

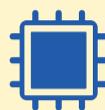
**BRL 131 MILLION** INVESTED IN ENVIRONMENTAL PROJECTS



**HUMAN**  
**7,713 MEMBERS**, 78% MEN AND 22% WOMEN

MORE THAN **BRL 21.2 MILLION** INVESTED IN TRAINING

INVESTMENT OF **BRL 99 MILLION** IN **323 HEALTH AND SAFETY PROJECTS**



**INTELLECTUAL**  
INVESTMENT OF **BRL 167.5 MILLION** IN INNOVATION

**355 PROJECTS** TO DEVELOP NEW PRODUCTS AND PROCESSES

**29 NEW PATENT REQUESTS** AND **83 EXTENSIONS**



**MANUFACTURED**  
**41 INDUSTRIAL PLANTS**, TOTALING AN ANNUAL PRODUCTION CAPACITY OF RESINS AND CHEMICALS OF **21,101 THOUSAND TONS**

**83% OF THE INDUSTRIAL UNITS** IN **STAGE 4** OF SEMPRE - ASSURED PERFORMANCE IN HSE



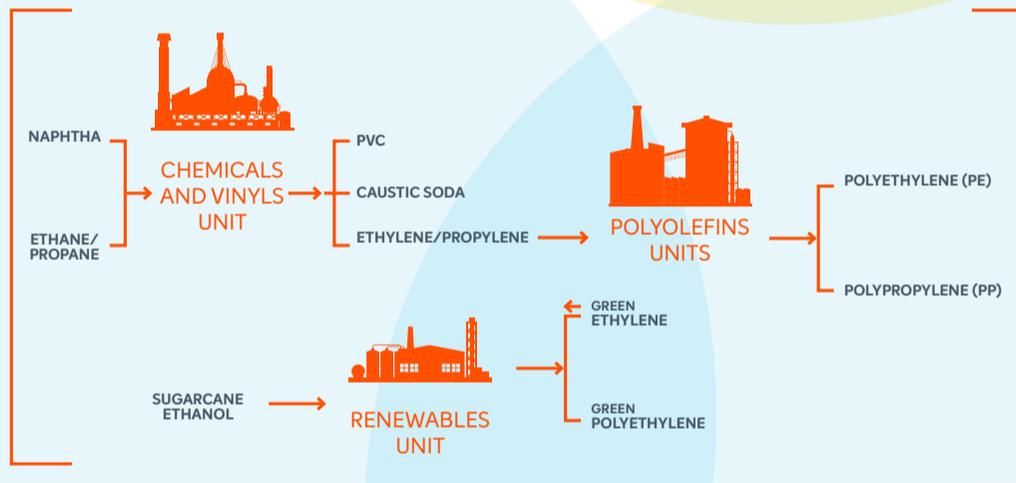
**SOCIAL**  
INVESTMENT OF **BRL 19.7 MILLION** IN **83 PROJECTS** IN THE COMMUNITIES

MORE THAN **856 PARTICIPANTS** IN THE PILOT PROJECT OF THE GLOBAL VOLUNTEER PROGRAM



### COSTS

TOTAL COSTS OF **BRL 36.4 BILLION**, 4% OVER 2016, IN RAW MATERIALS, SALARIES AND BENEFITS, SERVICES AND OTHERS.



### REVENUE

NET REVENUE OF **BRL 49.3 BILLION**, A **3% GROWTH** IN RELATION TO THE PREVIOUS YEAR

### NEGATIVE

DIRECT EMISSIONS OF **10,182,558 tCO<sub>2</sub>e** (SCOPE 1) AND INDIRECT EMISSIONS OF **1,072,713 tCO<sub>2</sub>e** (SCOPE 2) - CARBON INTENSITY OF **0.573 tCO<sub>2</sub>e/t**

GENERATION OF **2.13 kg OF SOLID**, LIQUID AND PASTY WASTE PER TON PRODUCED

GENERATION OF **1.06 m<sup>3</sup>/t** OF LIQUID EFFLUENTS

**43** REPORTABLE ACCIDENTS, **14** OF WHICH WITH LOST TIME AND 29 WITHOUT LOST TIME

**6 TIER 1** AND **31 TIER 2** PROCESS ACCIDENTS RECORDED



### IMPACTS

### POSITIVE

**138 SUPPLIERS ENGAGED** IN THE CLIMATE AND WATER SUPPLY PROGRAMS

MORE THAN **1,278** PICKERS BENEFITED, **35** ASSOCIATED COOPERATIVES AND **14,000** TONS OF WASTE RECYCLED THROUGH SER+REALIZADOR

**14** LIFE CYCLE ASSESSMENT STUDIES

**25.7%** WATER REUSE

**35% REDUCTION** IN **TIER 1** ACCIDENT RATE AND **18%** IN **TIER 2** ACCIDENT RATE

## Creation of value



### INVESTORS / SHAREHOLDERS

RECORD EBITDA OF **BRL 12.3 BI.**, **7%** OVER 2016

RECORD NET INCOME OF **BRL 4.1 BILLION**

PROFIT OF **BRL 5.1 PER SHARE**



### CLIENTS

GLOBAL SALES VOLUME OF **12.157 MILLION** TONS, CONSIDERING EXPORTS AND INTERNAL MARKET

SHARE INCREASE IN THE BRAZILIAN MARKET TO **69%**



### MEMBERS

**7,438 MEMBERS** TRAINED  
**213 LEADERS** TRAINED IN DEVELOPMENT PROGRAMS

**1.7%** VOLUNTARY TERMINATION RATE, THE SMALLEST IN THE LAST FOUR YEARS



### CIVIL SOCIETY

MORE THAN **144,000** PEOPLE BENEFITED BY COMMUNITY PROJECTS

**1,222 ACTIONS** AND **18,786 ITEMS** COLLECTED THROUGH THE PILOT PROJECT OF THE GLOBAL VOLUNTEER PROGRAM

## Strategy for Sustainable Development

We believe that sustainable development should be a goal that is in line with business strategy. Therefore, we seek innovative solutions that interact with our vision of growth, creating value for our operations, increasing the reputation of our brand and – most importantly – continuously minimizing any environmental and social impacts caused by our activities.

Since 2002, when we started our activities, we have already invested approximately BRL 500 million in improving water, energy and operational efficiency of our production units and strengthened our commitment to economic growth, environmental preservation and social justice.

Within our vision of “improving people’s lives by creating sustainable solutions in chemistry and plastic,” we work with challenging goals set out in our 10 sustainable development macro goals (see chart

with the evolution of the goals on the next page) and projects aligned with the Sustainable Development Goals (ODS), defined by the United Nations (UN) in 2015. As a member of the Brazilian Network of the UN Global Compact, the Company made an active contribution to the construction of Sustainable Development Goals (ODS).

Our sustainability principles, incorporated into the operational and manufacturing processes of the Company’s products, also extend to projects carried out outside the company. These initiatives are conducted as part of voluntary commitments established by the Company and materialized through participation in forums and associations to streamline the process to transition to a competitive, responsible and inclusive low-carbon economy.

**102-12, 102-13**



### Human Rights

Human rights are basic rights, inherent to all human beings, regardless of their gender identity, sexual orientation, race, nationality, social strata, religion, physical characteristics, or any other condition. Our commitment is in line with the United Nations Guiding Principles on Businesses and Human Rights.

The Universal Declaration of Human Rights include the right to life, liberty, freedom of speech and expression, the right to work and education, the right to well-being, among many others. Braskem is committed to advocating these rights throughout the company, in our direct operations, joint ventures, and the value chain. We recognize, too, that these rights extend globally, and affect individual civilly, politically, economically, culturally, and even environmentally.

Braskem members and business partners respect and support human rights and recognize their responsibility to identify, prevent, and proactively mitigate the exposure of potential risks. Additionally, the Board of Directors and the Executive Board have approved the code of conduct and other guidelines to further support human rights.

Based on our risk matrix for violation of human rights, approved in 2017, our operations and business partners can positively impact others. Therefore, Human Rights and their impacts will permeate the various sections of this report, in benefit of compliance, diversity, health, safety, work conditions, environment, post consumption, well-being, and Local Traditions, among others. You can identify specific cases through the icon.

# Macro Goals for sustainable development

## SUSTAINABILITY ALIGNED WITH THE BUSINESS 102-12

Since the beginning, we at Braskem have sought to align our growth strategy with actions that positively impact the environment and society. Through a sustainable strategy, consisting of ten macro-goals and targets set for 2020 – all linked to UN's 17 Sustainable Development Goals (ODS). Based on a correlation process, 79 concrete contributions were identified in five goals most positively impacted by Braskem:



## 2020 GOAL

### SAFETY

To be among the benchmarks in chemicals, occupational, and process safety in the Global Chemical Industry.

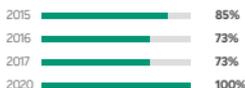
#### % OF THE GOALS ACHIEVED



### ECONOMIC AND FINANCIAL RESULTS

To be among the top three thermo-plastic resin producers in the world and to ensure profitability that sustains businesses, while maintaining the Investment Grade rating in the three major international agencies.

#### % OF THE GOALS ACHIEVED



### POST CONSUMPTION

To be one of the five largest traders of PE and PP, with recycled content in the world, among the petrochemical companies producing Polyolefins. Also, to become an important driver of recycling plastic in Brazil, which will help achieve the goals in the Sector Agreement on Packaging.

#### % OF THE GOALS ACHIEVED



### LOCAL DEVELOPMENT

To achieve an "excellent" reputation, in the Citizenship Dimension of RepTrak® Pulse, recognition from society of the Company's contribution to the improvements of human development is essential.

#### % OF THE GOALS ACHIEVED



### WATER EFFICIENCY

To be recognized in the global chemical industry for our usage of water resources in terms of water consumption and water reuse.

#### % OF THE GOALS ACHIEVED



### CLIMATE CHANGE

To be among the world's largest chemical companies in intensity of Greenhouse Gas (GHG) emissions while maintaining the use of renewable raw materials.

#### % OF THE GOALS ACHIEVED



### DEVELOPMENT OF SOLUTIONS

To be recognized as a Company that supports its clients in the development of environmental and social solutions using Chemistry and Plastics, therefore reaching a "strong" reputation level through products & services.

#### % OF THE GOALS ACHIEVED



### STRENGTHENING PRACTICES

To be among the business benchmarks in Brazil for our contribution to Sustainable Development, as well as a global benchmarks in the sector for its contribution to Sustainable Development.

#### % OF THE GOALS ACHIEVED



### RENEWABLE RESOURCES

To be among the leading producers of chemicals and thermoplastic resins from renewable raw materials, and remain the world's largest producer of thermoplastic resins from renewable sources.

#### % OF THE GOALS ACHIEVED



### ENERGY EFFICIENCY

To be considered one of the best chemical industries in the world, concentrating on energy consumption and use of renewable energy sources.

#### % OF THE GOALS ACHIEVED



# GOVERNANCE AND COMPLIANCE

## TRANSPARENCY AND RESPONSIBILITY

At Braskem, integrity and safety remain at the core of a valued, competitive, and successful Company. These are principles that guarantee the perpetuity of the business and our reputation in the market.





Several initiatives in 2017 focused on upgrading and improving practices that responded to Corporate Governance and Compliance. After the Board of Directors approved the Compliance Policy in 2016, we have successfully updated and improved several policies and procedures, risk management; reinforcing compliance, internal audits, adopting internal controls communicating and communicating training initiatives focused on continuous improvement that guide our ethical, integral and transparent operation.



### COMMITMENT

In one year, our performance increased by 23%. The results stemmed from the integrity indicators measured by Instituto Ethos, and demonstrated our commitment to improving practices and managing our business in a sustainable and responsible manner.

For Braskem, cooperating with laws, regulations, and policies is a core value. Effective compliance remain an intangible asset for the protection and growth of the Company. **102-16**



Our Code of Conduct is translated into all local languages where Braskem conducts business, and can be viewed on the Company's intranet and website ([www.braskem.com](http://www.braskem.com)).



### GLOBAL TRAINING ON THE CODE OF CONDUCT

In 2017, we strengthened our awareness of our Compliance Policy and carried out our online training on the Code of Conduct globally.



To learn more about our structure, principles, and Corporate Governance model, visit [www.braskem.com.br/corporate-governance](http://www.braskem.com.br/corporate-governance) or our Investor Relations website at [www.braskem-ri.com.br/home-en](http://www.braskem-ri.com.br/home-en) **102-18, 102-23**



### Independent Board of Directors

In June 2017, three new independent Board Members were elected to the Company's Board of Directors, bringing the number of independent members to six out of a total of 11 members with renowned experience in the market. Since 2015, 90% of the Board of Directors comprises professionals with renowned experience in the market and in aspects related to strategy and corporate governance.



To learn about the structure of our Board and Departments, visit [www.braskem-ri.com.br/councils-and-board](http://www.braskem-ri.com.br/councils-and-board)

**STRENGTHENING** 103-2, 103-3

Since 2016, our Compliance team has directly reported to the Board of Directors. This department includes four areas; Internal Controls, Risk Management, Compliance, and Internal Audit. Compared with the previous year, the department reinforced its personnel structure. In addition to relying on people responsible for Compliance in the United States, Europe, and Mexico, the department tripled the number of professionals on our team, from eight (in 2016) to 27 members.

The purpose of this department is to disseminate the culture of compliance throughout the Company, whether online or in classroom training, workshops, engagement campaigns, among other initiatives. In 2016, Braskem conducted training of senior management with the intention of advancing policies, guidelines, and other information across the Company. In 2017, 100% of the Braskem members had to retake the Code of Conduct training course.



**COMPLIANCE  
STRUCTURE**

**2016: 8 Members**

in Brazil also accommodating to the needs of local plants

**2017: 27 people**

from 5 different countries. This promotes diversity and reinforces the importance of this issue in the areas in which Braskem operates globally.



**SPECIFIC  
TRAINING**

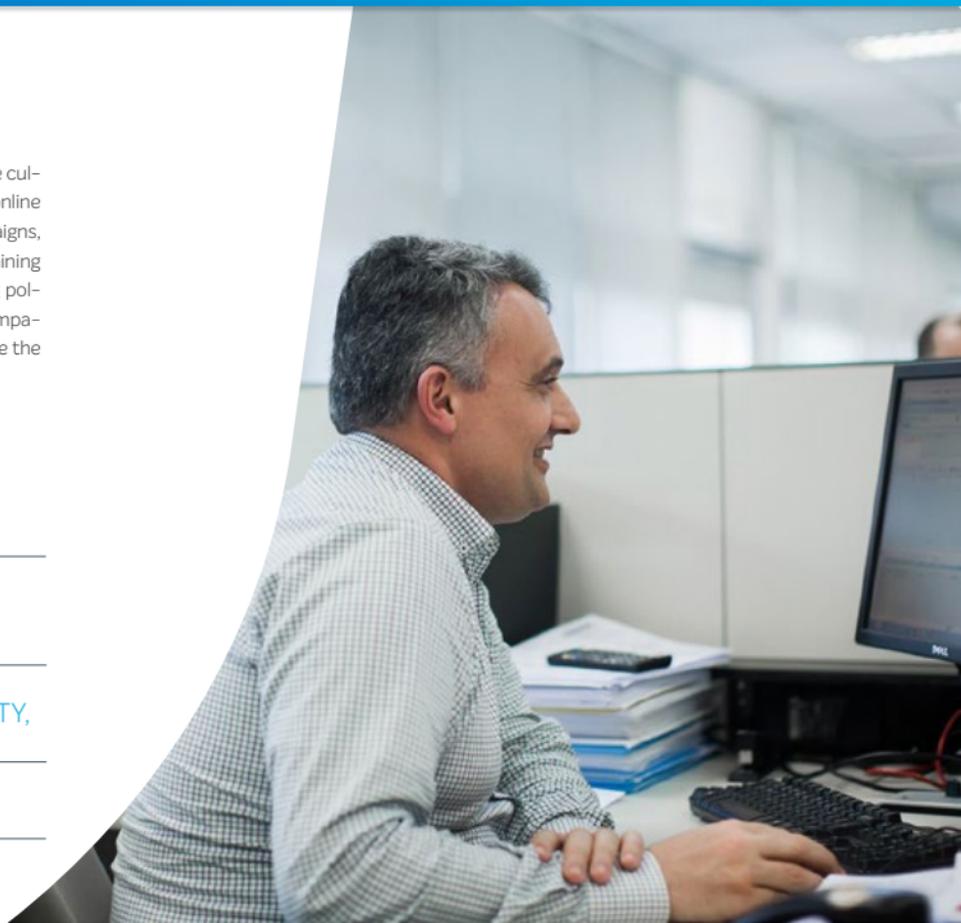
**9 classroom** training courses and  
**303 Members** trained



**TRAINING ON ETHICS, INTEGRITY,  
AND TRANSPARENCY<sup>3</sup>**

**5 classroom** training courses  
**246 Members** trained

<sup>3</sup> This training began in 2016 and was completed in 2017.



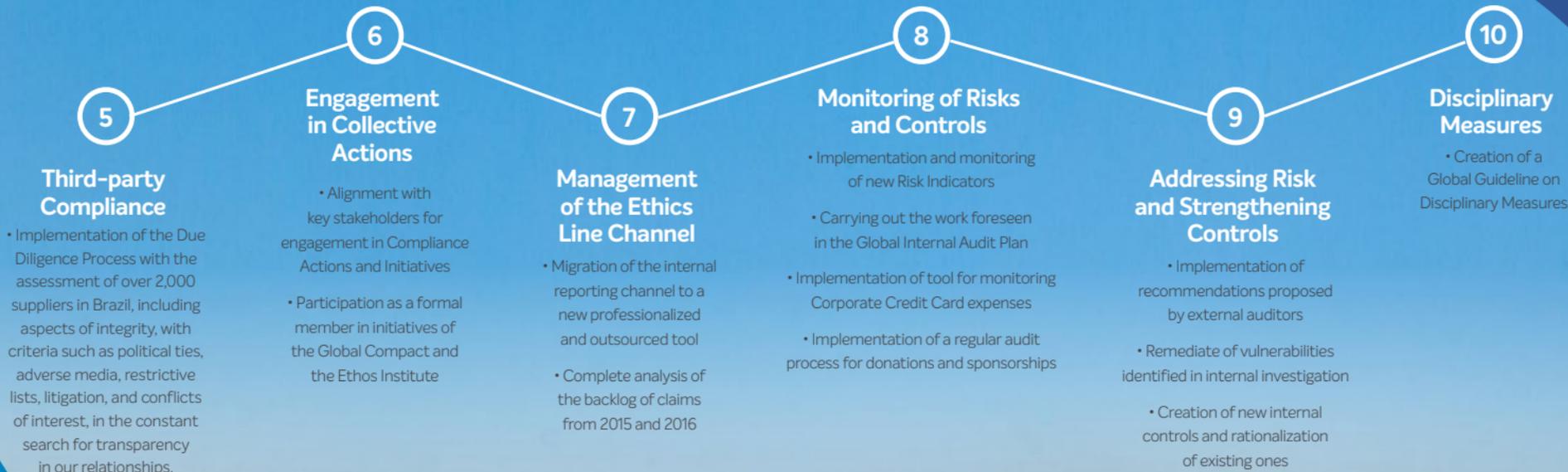
**COMPLIANCE MEASURES** 103-2, 103-3

Since the development of the ten structured measures in the Prevention, Detection, and Remediation pillars in 2016, we established a robust Compliance Improvement Program, comprised of 162 initiatives to improve the environment. In

2017, we put the program to the test and completed 81 initiatives. Currently, 119 initiatives have been completed, and the remaining medium- and low-priority projects will be addressed in 2018.

**Main  
deliveries  
in 2017**







## Commitment

At Braskem, we work with external organizations to fight corruption. In doing so, they have paired with the UN Global Compact which participates in the Anti-Corruption Working Group of the Brazil Network of the Global Compact, and become members of the Ethos Institute's Corporate Pact for Integrity and Against Corruption, which participates in the Integrity Working Group.

## RISK ASSESSMENT

To establish a beneficial Risk Management procedure, alterations were made while reviewing the Compliance processes in order to identify, understand, and respond to risks that could impact the Company's strategic goals. This new method ensures that decision makers have timely access to sufficient information, increasing the likelihood of reaching their goals and reducing risks. It also seeks to preserve shareholders' tangible and intangible assets, the safety of people, and the integrity of the environment and communi-

ties by improving decision-making processes, properly handling risks and negative impacts that arise.

In 2016, Braskem worked on assessing compliance risks and managed to identify priority areas to take action for necessary measures. In addition to the regulatory risks evaluated in the previous year, the Company created a new platform by incorporating, strategic, financial, and operational risks.

In 2017, the Compliance area conducted 88 risk assessment workshops globally, including 234 leaders in the Company to identify, analyze, and prioritize risks. In addition, we defined heat maps by ranking priority risks for each business area, in each region, and collected a global view of Braskem's priority risks.

With these procedures, it is possible to prevent risks, help redirect the Crisis Management development and build Business Continuity Plans.

## INTERNAL AUDIT

At Braskem, the Internal Audit department is focused on increasing organizational value, providing objective as-

essment of processes, and verifying compliance and effectiveness. Their main responsibility is to ensure the Company's practices are in compliance with internal policies, external regulatory standards, and the independent verification of the effectiveness of the controls. This area offers assistance to support Braskem's risk management, reduce costs and gain efficiency.

Establishing internal audit processes is imperative to strengthen our governance practices. Since the approval of the first global plan in December 2016, we have turned our attention to improving controls through 13 projects in all Braskem locations.

## REVISED DOCUMENTATION

To strengthen Braskem's policies and procedures, our Company has redesigned the document structure to approximately 150 documents. In addition, Braskem has developed projects to improve online tools, where the Company's normative documentation is archived to correspond to this initiative.

<sup>4</sup> Representation of data in the form of a map or diagram where data values are shown as colors.





## RESPONSIBILITY OF ALL

From March to May of 2017, Braskem conducted a global internal survey to understand the Members' views regarding concepts of Compliance, as well as their understanding of the Company's policies. The survey had over 2,800 Member's attend from Brazil, United States, Mexico, and Germany. The survey sought to give a more realistic view of team expectations, building processes and communication channels based on the opportunities identified. In early 2018, we conducted a new survey to evaluate the results of the actions implemented in 2017, to gain data that will help us verify new needs for improvement.

## WHO IS RESPONSIBLE FOR ENSURING COMPLIANCE AT BRASKEM?



\* The results refer to the 2017 initiatives.

## WHAT ARE THE TOP THREE PRIORITIES OF THE COMPLIANCE AREA?



### NEW ETHICS LINE CHANNEL [102-17, 103-2, 103-3, 406-1](#)

Going forward with the plans to advance the reporting channel, Braskem offers the Ethics Line Channel to provide a more secure medium for reporting behaviors deemed unethical. Over the year, we have made alterations to this channel to be professional, effective, unbiased, and credible from a new independent team aside from the Compliance team, who are trained to receive and assess reports.

Since April 2017, all calls made to Braskem were not recorded and handled with more personal care. In addition to the online channel, Braskem's telephone service is available 24X7, and can be translated to each country's language (Brazil, USA, and Mexico), with the exception of Germany, where reports are received in English.

Each call that is made to the Company is given a number that allows us to contact the person – anonymous-

ly – if further clarification is needed on the case. This new method was developed to be more reliable for our actions and to test protocols by subject.

All cases investigated in 2017 were presented during the five Ethics Committee meetings. Cases with greater significance were presented at the Compliance Committee meetings. We had a record number of cases filed due to the internal communication actions on the new Ethics Line Channel, jumping from 107 in 2016 to 177 in 2017. Of the closed investigations this year, 23% were considered to be unfounded, and 77% were considered to be founded. Compliance recommended 25 reparatory measures for those cases. Of the reports filed in 2017, 64% were anonymous and 36% identified themselves.

<sup>5</sup> The ICTS partner company is now responsible for managing the first report from complainants. Learn more at [www.icts.com.br](http://www.icts.com.br) (in Portuguese).

### Main results of the Ethics Line Channel in 2017

Of the cases opened prior to 2017, a total of 48 had their investigations closed in the year.

These cases were presented during the 5 Ethics Committee meetings in 2017. 11 cases were considered to be founded (magnifying glass on Human Rights\*: 2 mobbing cases in Brazil), which resulted in the following reparatory measures:

- 2 terminations of Members.
- 3 formal warnings.
- 2 creations/adjustments of controls.

177 cases opened in 2017

In 2017, 88 were analyzed. All cases were presented at the Ethics Committee meetings. 20 cases were considered to be founded (magnifying glass on Human Rights\*: 1 case of abuse of power, 1 of discrimination, 1 of sexual harassment and 2 of mobbing in Brazil, and 1 of mobbing in Mexico). As a result of guilty cases, Compliance took the following measures:

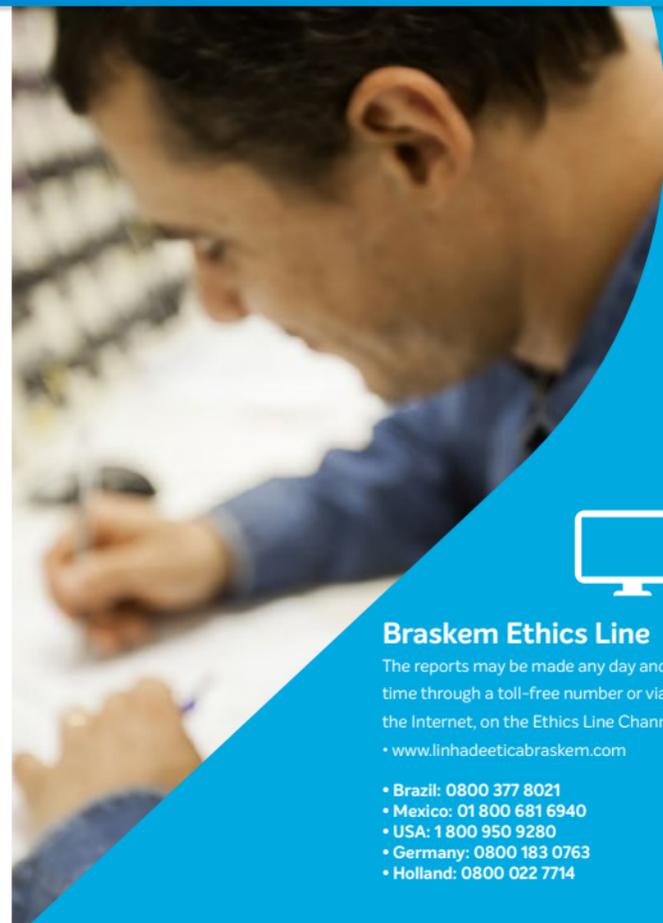
- 1 terminations of Members
- 3 creations/adjustments of controls
- 5 oral warnings/feedbacks
- 3 Partner employees dismissed
- 1 cancellation of contract with Partner

64 cases opened in 2017 began the year 2018 under investigation.

Of the 64 cases from 2017 that began the year 2018 under investigation (magnifying glass on Human Rights\*: 7 are cases of harassment in Brazil and Mexico). The last meeting in 2017 was held on 10/31/2017. All actions after that date will be disclosed in the 2018 Annual Report.

Support to victims: Braskem has improved its performance to benefit victims. For example, in 2017 we had a case of threat to a Member who received personal security services hired by the Company until this person's workplace was changed to another state in Brazil.

\* Focus on cases of discrimination, harassment, and abuse of power.



### Braskem Ethics Line

The reports may be made any day and time through a toll-free number or via the Internet, on the Ethics Line Channel:

• [www.linhadeeticabraskem.com](http://www.linhadeeticabraskem.com)

- Brazil: 0800 377 8021
- Mexico: 01 800 681 6940
- USA: 1 800 950 9280
- Germany: 0800 183 0763
- Holland: 0800 022 7714

# BUSINESS PERFORMANCE

## RECORD RESULT IN A CHALLENGING SCENARIO

We demonstrated our resilience and ability to face diverse scenarios, bringing significant results to all shareholders.





Braskem's excellent industrial performance continued in 2017, resulting in noteworthy production records of some of our main products. This year, we demonstrated our ability to face diverse scenarios, thus bringing significant results to all shareholders.

In a year that presented many challenges, Braskem concluded 2017 with a record EBITDA. Both in terms of Brazilian real and US dollars: BRL 12,334 million and USD 3,872 million, representing, an increase of 7% and 17% compared with 2016. These results demonstrate our achievements

In **2017**, Braskem recorded consolidated net income of **BRL 4,133 million**. Reinforcing the Company's global presence, **47%** of our consolidated net revenue (ex-resale of naphtha and condensate) was generated in international markets.

due to our strategy, focused on international presence, diversifying raw materials, constant improvement of operational efficiency, competitiveness, and Governance and Compliance standards.

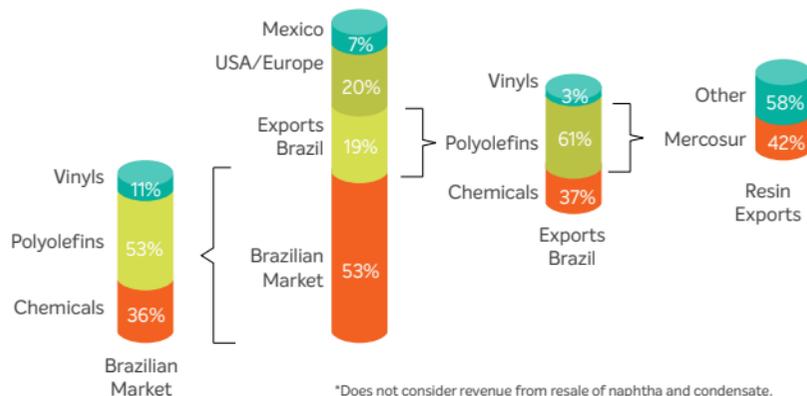
Sales in Mexico help explain this success due to the expansion of volume in the international chemicals market, expanded capacity, and increase in sales volume from the units in the United States and Europe, due to the higher volume of sales in the Brazilian market and the capital gain of USD 88 million from the disposal of quantiQ.

In 2017, Braskem's free cash generation was BRL 2,460 million, a 9% increase from 2016. Corporate leverage measured by the Net Debt/EBITDA ratio in dollars was 1.91x at the end of 2017. Braskem retained its investment grade by Standard & Poor's (BBB), by

Fitch Ratings (BBB) and above sovereign risk by the three major risk classification agencies (S&P, Fitch, and Moody's). The reports are available on the Investor Relations website [www.www.braskem-ri.com.br](http://www.www.braskem-ri.com.br).

**102-9, 201-1, 103-2, 103-3**

NET INCOME 2017\*



\*Does not consider revenue from resale of naphtha and condensate.

**VALUE ADDED STATEMENT (VAS)**

At the end of 2017, our global performance resulted in a total value-added distributed of over BRL 14.5 million, up 38% from 2016. These results positively impact the economies of Braskem locations.

## VALUE ADDED STATEMENT (BRL thousands)

	CONSOLIDATED		PARENT COMPANY	
	2017	2016 ADJUSTED	2017	2016 ADJUSTED
<b>Revenues</b>	<b>58,000,752</b>	<b>52,429,423</b>	<b>45,303,874</b>	<b>39,775,501</b>
Sales of goods, products and services	57,958,099	55,930,688	45,351,039	42,711,853
Other (expenses) revenues, net	1,202	(3,437,060)	(82,722)	(2,867,482)
Provisions for credits of doubtful debtors	41,451	(64,205)	35,557	(68,870)
<b>Inputs acquired from third parties</b>	<b>(41,147,077)</b>	<b>(39,909,905)</b>	<b>(34,116,843)</b>	<b>(31,662,604)</b>
Costs of products, goods and services sold	(38,845,377)	(37,802,247)	(32,523,499)	(30,222,548)
Materials, energy, third-party services, and other	(2,237,835)	(2,019,390)	(1,539,920)	(1,353,186)
Loss of asset values	(63,865)	(88,268)	(53,424)	(86,870)
Gross value added	16,853,675	12,519,518	11,187,031	8,112,897
Depreciation, amortization, and depletion	(2,928,855)	(2,683,100)	(1,880,065)	(2,052,972)
Net value added produced by the Company	13,924,820	9,836,418	9,306,966	6,059,925
<b>Value added received in transfer</b>	<b>652,527</b>	<b>720,407</b>	<b>2,996,197</b>	<b>1,618,945</b>
Equity income	48,832	30,078	2,450,872	986,493
Financial income	603,630	690,122	545,262	632,452
Other	65	207	63	
<b>Total value added for distribution</b>	<b>14,577,347</b>	<b>10,556,825</b>	<b>12,303,163</b>	<b>7,678,870</b>
<b>Personnel</b>	<b>1,421,214</b>	<b>1,267,513</b>	<b>1,018,832</b>	<b>765,684</b>
Direct remuneration	1,147,158	986,940	801,083	564,067
Benefits	212,815	218,110	154,876	140,879
FGTS (government severance fund)	61,241	62,463	62,873	60,738
<b>Taxes, fees and contributions</b>	<b>4,232,072</b>	<b>3,018,046</b>	<b>3,511,778</b>	<b>2,246,826</b>
Federal	2,214,611	1,288,179	1,569,651	732,051
State	1,995,068	1,703,249	1,928,530	1,502,420
Municipal	22,393	26,618	13,597	12,355
<b>Remuneration of third-party capital</b>	<b>4,790,740</b>	<b>7,000,463</b>	<b>3,689,563</b>	<b>5,077,832</b>
Financial expenses (exchange rate variation)	4,545,979	6,755,962	3,487,287	4,888,738
Leases	244,761	244,501	202,276	189,094
<b>Remuneration of own capital</b>	<b>4,133,321</b>	<b>(729,197)</b>	<b>4,082,990</b>	<b>(411,472)</b>
Retained earnings in the accounting period	3,074,114	(438,331)	3,074,114	(442,430)
Dividends	1,000,000		1,000,000	
Non-controlling shareholding interest in subsidiaries	50,331	(317,725)		
Results from discontinued operations	8,876	26,859	8,876	30,958
<b>Total value added distributed</b>	<b>14,577,347</b>	<b>10,556,825</b>	<b>12,303,163</b>	<b>7,678,870</b>

(i) For more information about the financial statements presented, including the financial entities considered in the consolidated numbers, visit: [www.braskem-ri.com.br/annual-reports](http://www.braskem-ri.com.br/annual-reports) 102-45

## STEPS TO WORLDWIDE INTEGRATION

We continue on the mission of building an increasingly global Company. In 2017, we changed the nomenclature of our Business Units and adopted a language more consistent with the market. The purpose of this initiative is to facilitate the understanding of each of our segments of operation, informing about the products and geographic reach of each Unit.

- Basic Petrochemicals and Vinyls Unit: now called the Chemicals and Vinyls Unit (formed by the Small Chemicals and Vinyls Companies)
- Polyolefins, Renewables, and Europe Unit: new Polyolefins Unit South America and Europe (formed by the Small Companies of Polyethylene South America, Polypropylene South America, Renewables, Polyolefins Exports, and Polyolefins Europe).
- North America Unit: becomes Polyolefins Unit North America (includes the Small Companies Polypropylene North America, UTEC, and Braskem Idesa).

## BRAZIL

In Brazil, the gradual recovery of the economy, consumption and GDP growth in 2017 has brought positive results for industrial activity. Throughout the year, market share of PE, PP, and PVC increased 69%, resulting in total sales of 3,486 thousand tons, with an EBITDA of BRL 8,675 million.

This year, the demand for resins in the Brazilian market reached 5.1 million tons, a 4% increase from 2016, due to the higher level of activity, in packaging, automotive, agriculture, retail, and electronics sectors. In the Brazilian market, sales totaled 3.5 million tons, 4% increase from 2016. One of the highlights of Brazil success was the sale of PE, which increased the Company's record by 5%. In 2017, resins exports totaled 1.5 million tons, 11% decrease from 2016, due to prioritizing the Brazilian market, given the higher demand.





### Our focus at the Brazilian units rely on operational and commercial efficiency

From a strategic standpoint, the year was marked by the completion of the raw material flexibility project that allows flexibility for the production of up to 15% of ethylene using ethane as raw material at the petrochemical plant in Bahia. Imported Ethane arrived at the Company's furnaces at the end of November, with Braskem's first *flex* operation in Camaçari.

Our focus at the Brazilian units remained on operational and commercial efficiency, on serving the Brazilian market, on ensuring exports of the volume not sold in this market, especially for Mercosur, and on finalizing the investment to provide greater flexibility to the operation of the cat cracker in Bahia.

### CHEMICALS

At Braskem, we are focused on adopting a language more suitable for its market. We even changed our basic Petrochemicals segment to Chemicals.

Production of Ethylene in 2017 totaled 3,952 thousand tons. Of the total ethylene produced by the Chemicals units, approximately 80% is transferred for consumption in the Company's Polyolefins and Vinyls units. Production of Propene in 2017 totaled 1,585 thousand tons, of which 65%, is transferred for consumption in the Company's Polyolefins segment. The unit's main products, Ethylene, Propene, Cumene, Gasoline, Benzene, Toluene, and Paraxylene accounted for nearly 80% of the net revenue for Chemicals in 2017.



### Strategic management for the environment

At the beginning of 2017, Braskem acquired 63.7% of Cetrel, an environmental management company for the operation of Camaçari Petrochemical Complex in Bahia. Cetrel treats and disposes effluents and industrial waste, conducts environmental monitoring and supplies water for industrial use. These features meet Braskem and nearly 100 clients at the industrial complex needs. This purchase is intended to make our industrial operations safer, reliable, and align with our strategy to strengthen the petrochemical operation.



### Ethane in production

In Camaçari (Bahia), Braskem used imported chemicals in our Chemical Units which increased our share of ethane-based production by 20% in Braskem's raw material matrix in Brazil. BRL 380 million was invested in the technological adaptation of the unit, the interconnection pipeline, and in the adaptation of the logistics infrastructure at the Aratu Port Terminal in Candeias, Bahia.

The Chemicals segment owns and operates four petrochemical complexes – Camaçari (BA), Triunfo (RS), São Paulo (SP), and Rio de Janeiro (RJ), where olefins, aromatics, and utilities are produced.

Financial Overview (BRL million)	2017 (A)	2016 (B)	VAR. (A) / (B)
Net revenue	25,179	25,063	0%
COGS	(20,530)	(20,248)	1%
Gross profit	4,649	4,814	-3%
Gross Margin	18%	19%	0 p.p.
SG&A	(773)	(680)	14%
Other Operating Revenue (Expenses)	(197)	(410)	-52%
EBITDA	4,809	4,910	-2%
EBITDA Margin	19%	20%	1 p.p.
Net Revenue (USD million)	7,891	7,242	9%
EBITDA (USD million)	1,510	1,415	7%



### Alternative sources

Our unit in Duque de Caxias, Rio de Janeiro (RJ), received its first shipment from the United States, of 4,500 tons of ethane. The ship brought raw material from shale gas as part of the agreement with Enterprise Products, a North American company that supplies ethane which we are in agreement with. The project is part of Braskem's strategy to make its petrochemical production more flexible with alternative sources of raw materials.

## POLYOLEFINS

The Polyolefins segment includes 18 Polyethylene (PE) and Polypropylene (PP) plants in Brazil, which also included the production of Green Polyethylene made from renewable raw material. The industrial operations include PE and PP plants located in the petrochemical complexes in Triunfo, Camaçari, Rio de Janeiro, Great-

er São Paulo, Cubatão and Paulínia, with total production capacity of 3,055 thousand tons of PE, of which 200,000 tons are green PE, and 1,850 thousand tons are of PP. During the first quarter of 2017, the UTEC business that was part of the Polyolefins segment, became part of the United States and Europe segment.

Financial Overview (BRL million)	2017 (A)	2016 (B)	VAR. (A) / (B)
Net revenue	19,650	20,307	-3%
COGS	(15,572)	(15,981)	-3%
Gross profit	4,079	4,326	-6%
Gross Margin	21%	21%	- 1 p.p.
SG&A	(1,322)	(1,285)	3%
Other Operating Revenue (Expenses)	(178)	(199)	-11%
EBITDA	3,001	3,291	-9%
EBITDA Margin	15%	16%	- 1 p.p.
Net Revenue (USD million)	6,157	5,850	5%
EBITDA (USD million)	943	935	1%

The segment includes 18 Polyethylene (PE) and Polypropylene (PP) plants in Brazil, which also included the production of Green Polyethylene





## VINYLS

The Vinyls segment had an annual production capacity of 710,000 tons of PVC is and an annual production capacity of 539,000 tons of caustic soda. This segment includes industrial and commercial operations of the PVC, chlorine, and caustic soda units, as well as other

products such as hydrogen and sodium hypochlorite. The industrial operations include three PVC plants located in the Camaçari and Alagoas Petrochemical Complex, and two chlorine soda plants, also located in the Camaçari and Alagoas Petrochemical Complex.

Financial Overview (BRL million)	2017 (A)	2016 (B)	VAR. (A) / (B)
Net revenue	3,067	3,016	2%
COGS	(2,606)	(2,815)	-7%
Gross profit	461	201	129%
Gross Margin	15%	7%	8 p.p.
SG&A	(163)	(237)	-31%
Other Operating Revenue (Expenses)	(163)	(72)	127%
EBITDA	454	241	88%
EBITDA Margin	15%	8%	7 p.p.
Net Revenue (USD million)	962	870	11%
EBITDA (USD million)	143	69	108%

## UNITED STATES AND EUROPE

In 2017, the average price of propene was USD 986/t in the American Gulf (USG), up 30% from 2016. As a result, exports increased and product inventory decreased, however the PP spread in the United States declined 17% compared to 2016, USD 585/t.

Despite this downfall, our operations in the United States and Europe generated significant results in 2017, with an EBITDA of USD 647 million (BRL 2,063 million), 7% decrease from 2016. This decrease was achieved by the Company's strategy to ensure operational and commercial efficiency, recording a 97% utilization rate of the units and taking advantage of market opportunities given the strong demand for PP in these markets.

Braskem recorded a utilization rate of 97% in the United States and Europe, a 3 p.p. decrease from 2016 due to a revised production capacity. On the other hand, production was 5% higher and hit the Company's historical record. In addition, there were record sales of 5% growth, due to the increase in capacity in United States plants in late 2016, Germany in early 2017, and strong demand for PP in these regions.

Financial Overview (USD million)	2017 (A)	2016 (B)	VAR. (A) / (B)
Net revenue	3,087	2,548	21%
COGS	(2,324)	(1,750)	33%
Gross profit	763	798	- 4%
Gross Margin	25%	31%	- 6 p.p.
SG&A	(183)	(145)	26%
Other Operating Revenue (Expenses)	(7)	(21)	- 68%
EBITDA	647	698	- 7%
EBITDA Margin	21%	27%	- 6 p.p.
Net Revenue (BRL million)	9,854	8,896	11%
EBITDA (BRL million)	2,063	2,474	-17%





### Solidarity in times of crisis

In August 2017, hurricane Harvey hit Texas, causing severe flooding and power outages in areas near Braskem plants, in the city of La Porte. Hurricane Harvey was the first category 4 hurricane to hit Texas in 56 years. This crisis shut down two of our five PP plants due to a power outage that left service providers and logistics unable to perform their duties, and prevented dozens of Members' families from returning to their homes.

This unexpected event, triggered Braskem to take emergency actions to assist teams and their families and preserve the integrity of their plants. Members of Braskem managed the crisis and decided which critical measures to take after the dilemma. The team used a boat kept in the facility to rescue people trapped in their homes. In addition, the Company provided hotel reservations, power generators, water, and food to those in need.

In January 2017, we began operating our new Ultra High Molecular Weight Polyethylene (UHMWP) plant in La Porte, Texas. In addition to strengthening our position as one of the world's largest UHMWP producers, the new plant represents another milestone in Braskem's growth in North America, enabling us to efficiently serve clients in North America and Europe.

UHMWP is marketed under the UTEC brand

and developed using the Company's proprietary technologies. This polymer has excellent mechanical properties, such as high abrasion resistance, impact resistance, and low friction coefficient. It is eight times lighter than steel and ten times more durable than High Density Polyethylene (HDPE), and is applicable for automotive and transportation, electronics, fiber and textile, and industrial sectors, among others.

 To learn more, visit [www.braskem.com/utec](http://www.braskem.com/utec).



### Growth with focus on Clients

In June 2017, our Board of Directors approved the investment of a new Polypropylene (PP) production facility in the city of La Porte, Texas for USD 675 million. Currently, Braskem owns five PP industrial units in the United States. This investment will secure our position and strengthen our leadership in the production of this thermoplastic resin.

The new Braskem plant will have a production capacity of 450,000 tons of polypropylene per year and will occupy part of the Company's 800,000 sqm complex in the region. This plant will use the existing infrastructure, benefiting from the connection to receive raw material, the railroad network, the central control room, testing facilities, and others. The new Polypropylene (PP) production facility will continue to meet the growing demand of clients.

This investment will positively impact the region's economy, by employing nearly 1,000 people during the development and construction phases, and creating 50 job openings when the plant opens. The projected completion date for the plant is in the first quarter of 2020.

 To learn more, visit [www.braskem.com.br/usa/delta](http://www.braskem.com.br/usa/delta)



## MEXICO

The year 2017 marked the first full year of operation at the Braskem Idesa Industrial Complex in Mexico. From a commercial standpoint, 2017 highlighted the production and operational stability of Braskem and advanced Mexico's domestic market penetration, with significant levels of market share. In exports, Braskem focused on more strategic markets with better margins in the United States and Europe.

In 2017, the Mexican unit EBITDA totaled USD 623 million, resulting in an 88% average operating rate for the PE plants. Braskem focused on production stability of the Petrochemical Complex, the increase in sales in the Mexican market, consolidating the relationship with local clients, and exports with synergy between Braskem's operations in other regions.



Braskem IdeSA has positively impacted the Mexican market for thermoplastic resins. In 2017, Braskem IdeSA sold 65% of its production to the domestic market, reducing the country's dependence from abroad. Given the greater product availability, total sales volume of PE was 124% higher than 2016. Exports were 81% higher due to the increased product portfolio and greater coordination with US and European sales teams.

Among the key points for our success in this first year is the entire knowledge transfer process from Braskem Brazil to Mexico, carried out by a team focused on the project during the first months of operation. This was a decisive factor toward qualifying the local workforce, both for operations and maintenance. With this result, we have already initiated the process to downsize the Brazilian team, which, of the 100 people in the first month of operation now has approximately 30. It is expected that, in 2018, this number will drop to 14 Brazilians, out of a total of 790 local Members.

**Financial Overview (USD million)**

	2017 (A)	2016 (B)	VAR. (A) / (B)
Net revenue	1,128	474	138%
COGS	(657)	(344)	91%
Gross profit	472	131	261%
Gross Margin	42%	28%	14 p.p.
SG&A	(90)	(68)	31%
Other Operating Revenue (Expenses)	9	0	11,948%
EBITDA	623	163	282%
EBITDA Margin	55%	34%	21 p.p.
Net Revenue (BRL million)	3,601	1,587	127%
EBITDA (BRL million)	1,987	530	275%

# INNOVATION

## ALIGNMENT AND GLOBAL IDEAS

An essential part of Braskem's business strategy is thinking beyond the basics and focusing on developing innovative solutions and products to help the world and the Company – evolve.



## X-RAY OF INNOVATION

Today, innovation plays a key role in the creation of new products, solutions, building chemicals of the future, and effectively supporting the sustainable development of business, society, and the environment.

One of Braskem's 2017 missions is to continue to globalize their brand in the petrochemical industry. In January 2017, Braskem's innovative teams from Brazil and United States merged and formed a single international team focused on developing projects aligned with Braskem's growth strategy. The initiative enhanced the communication of ideas among countries, and created cooperative backbone to the Company's internationalization strategy in the Americas.

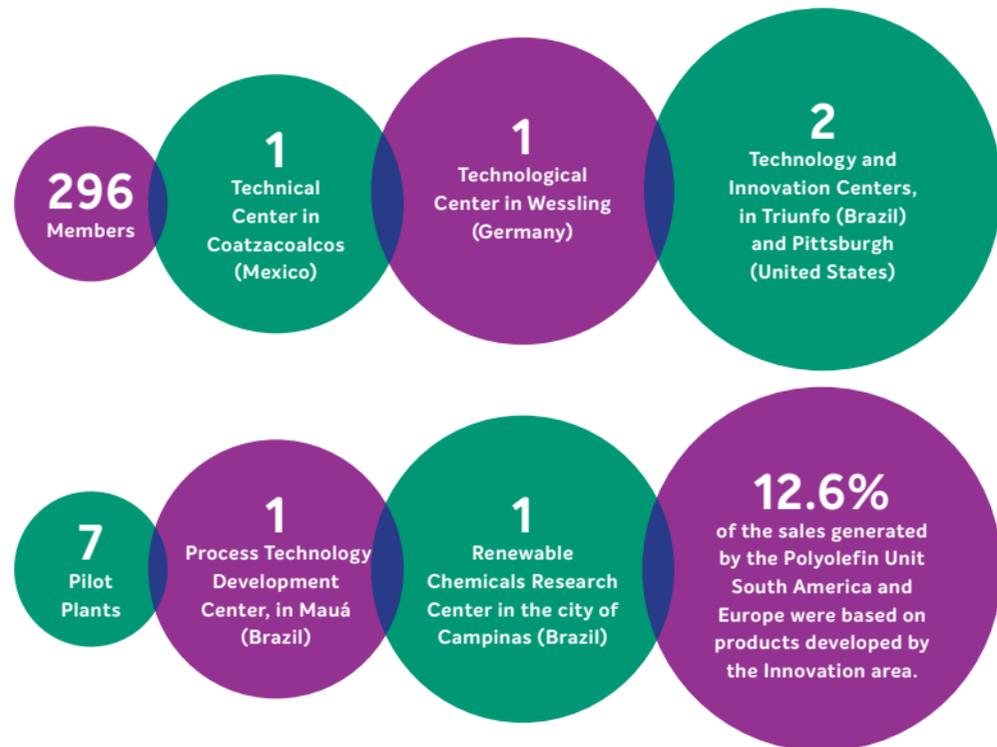
This new platform allows Braskem to acquire the best Members from each region. One example is the Company's relationship with leading universities in the United States, among them the Massachusetts Institute

of Technology (MIT), through the Industrial Liaison Program, and the opportunity to expand knowledge in advanced metabolic engineering processes, with a new team structured in the United States, where research in this field is more advanced.

In addition, to strengthening the relationship between researchers and technology engineers at Braskem units, every two years a conference is held to share experiences, stimulate the generation of ideas, and learn about ongoing projects and research. In 2017, the third edition was attended by 240 people, and 120 studies were presented, in addition to two international speakers.

<sup>6</sup> MIT Industrial Liaison Program (ILP): <http://ilp.mit.edu>

<sup>7</sup> Consists of manipulating the metabolism of organisms in order to optimize genetic and regulatory processes in cells to increase production of a given substance.





## In 2017...

**355** projects to develop  
new products and processes

**BRL 167.5**  
million invested

**29** new patent requests and  
**83** extensions. Currently, the  
Company has **501** active  
documents, of which  
**199** patents were granted.

**440** Clients received support  
from the Technology and  
Innovation Center in Brazil  
(over **23,000** analyses  
carried out) and **65** in  
the United States (about  
**17,000** analyses)

## Innovative solutions

### TECHNOLOGICAL COOPERATION

In December 2017, we began a partnership with Haldor Topsoe – a Danish company and global leader in catalysts and science of surfaces – in order to develop a pioneering solution of monoethylene glycol (MEG) from sugar. MEG is one of the components in the production of PET, an important resin in the textile and packaging sectors and widely used to produce bottles. The project will focus on converting sugar into resin at a single industrial unit, significantly reducing the cost of production. The partnership is scheduled to begin operations in 2019, and includes the construction of a demonstration unit in Denmark.

### THE FUTURE WITH SMART PACKAGING

What if packaging at home showed you if a product is still good for consumption? It may also help to identify dates in very small font, which often blur over time. Braskem has begun to develop a solution in packages that, through a change in color, shows the quality and the state of conservation of various products, from food to cosmetics. The product is still being tested, but the development of

this technology – carried out in partnership with the North American University of Clemson and the Federal University of Rio Grande do Sul (UFRGS) – will help detect the change in the environment inside the packaging, a sign that indicates when food is expired. This product is projected to come to fruition in about three years and will be available on the shelves for consumers.

### HIGH PERFORMANCE

Braskem Amppleo, a polypropylene resin with High Melt Strength properties, able to withstand temperatures up to 100°C without deforming. This product was created to produce high performance foams. Braskem Amppleo is fully recyclable, and allows for the production of versatile foams with the possibility of developing applications for the automotive, industrial, civil construction, packaging, and appliances markets. Braskem Innovation and Technology Center at the Triunfo Petrochemical Complex in Brazil and the Pittsburgh Innovation Center in the United States conducted the research to develop this resin.



## RESISTANCE AND FLEXIBILITY

Shrinkfilm, produced by Braskem is created using polyethylene (PE) resins with strong mechanical strength, transparency, and productivity. This resin falls under the Braskem Proccess family, and is mainly utilized in the food and beverage markets to protect cargo, guarantee integrity and safety in transport, storage, and distribution. In addition, Braskem created FlexusCling, specifically developed for the extrusion of stretch film. FlexusCling stands out for its high load retention and excellent performance, even at low temperatures, as well as impact and puncture resistance. Today, the market for shrink and stretch films is responsible for gaining between 20 and 25% of the volume of polyethylene in the flexibles segment in Brazil.

## GLOSS AND FINISHING

Rigid polyethylene from the Rigeo Lumios family, is a resin which focuses on the cosmetic, hygiene, cleaning and food markets. This resin provides an increased surface gloss, offering better package finishing. Braskem has designed rigid polyethylenewith intense and vibrant colors, focusing more attention to the product on the shelves.

## SOLAR POWER

Braskem has partnered with Ciel et Terre Brasil, which allowed for the expansion of the Hydrelío®, a technology for floating solar power generation. This technology allows solar panels on floats to be applied on a wide variety of water surfaces. Hydrelío's benefits include; freeing up land, reducing costs of connection to the network by using existing electrical infrastructures, increasing solar productivity due to the natural cooling of the system by the water surface, simpler and less expensive maintenance, and others.

## Extending limits

Braskem continues to invest in improving laboratories and the Technology and Innovation Centers (CTI), in order to offer innovative solutions that are aligned with Client needs. In 2017, the Triunfo unit (Brazil) invested BRL 1.7 million to install a complete rotomolding laboratory, which will be used to develop new solutions, perform productivity analyses, technical comparisons between materials, and portfolio grades.

In addition, Triunfo's CTI advanced its research on materials for 3D printing, creating solutions for the project partnered with Made in Space, a leading North American company in 3D printer development for operating in zero gravity, and NASA supplier.

In 2016, we expanded our horizon and took Green Plastic "I'm green™" to the International Space Station (ISS). In the Beginning of 2018, the solutions developed by Braskem will be used by astronauts to recycle packaging and plastic objects, further expanding the autonomy and sustainability of future missions.

Part of the "Printing the Future" project will be the first commercial plastic recycling operation in space mission's history. The machine consists of a plastic grinding and extrusion system, producing a filament suitable for the 3D printer, which may be used again to print tools and other plastic materials.



## Entrepreneurship platform

Braskem Labs are an entrepreneurial platform with programs focused on accelerating innovative and sustainable business and meeting society and business challenges.

### LEARN MORE



**Braskem Labs Scale:** acceleration program carried out in partnership with ACE, which, since 2015, has accelerated over 40 companies. It seeks more mature entrepreneurs, whose solutions are innovative, contain plastic or chemicals, and have social and environmental impact. Of the 10 companies selected in the 2017 edition, 60% received investment or are in advanced conversations. As a way to contribute to the advancement of the Sustainable Development Goals, as of 2018 all projects selected should make clear how they will cause positive impacts in the SDGs aligned with its proposal.



**Braskem Labs Challenge:** Braskem Labs Challenge: Braskem's challenge program, through which the company's areas may launch challenges for the start-up ecosystem. Those selected will be able to run a pilot project in Braskem's industrial units or administrative areas. With challenges from the Logistics and Services to Personnel areas, the first round included 130 registered startups and presented 15 proposals for pilot projects to be implemented. The program is carried out in partnership with the innovation consulting firm Innoscience.



**Braskem Labs Ignition:** acceleration for startups in the validation phase of their business model.



To learn more about the Braskem Labs Platform, visit [www.braskemlabs.com/labs/home-en](http://www.braskemlabs.com/labs/home-en)

## More sustainable cycles

Evaluating the life-cycle of a product is an essential tool to monitor and reduce environmental risks caused by the company. Since 2005, Braskem has used the Life Cycle Assessment (LCA), a process which includes Braskem's entire value chain and evaluates all the benefits our solutions bring – from extraction of the raw material to disposing of the product – to develop a strategy that is sustainable. Life Cycle Assessment (LCA) has completed over 57 studies, and seven are ongoing. Recently, the process began to be tested in industrial areas, to better support decision-making in various actions, in our Client chain, and is also included in the discussion about raw material composition and product evaluation in the Procurement area.

In order to reinforce the importance of the LCA process, Braskem is part of the Brazilian Entrepreneurial Network for Life Cycle Assessment, a joint initiative of companies and institutions that became a Civil Society Organization of Public Interest (OSCIPI), which includes the participation of over 40 companies from various sectors, such as Boticário, Natura, Duratex, Basf, ArcelorMittal, and others. Through this initiative, we seek to mobilize companies, coordinate governments, and educate consumers to incorporate the LCA as a tool to determine the sustainability of a product.

Among the highlights of 2017 is a study proving that plastic is a viable and sustainable alternative for the paint packaging market. In addition to being more practical, easier, safer, lighter, and more resistant, plastic buckets make it easier to reuse and recycle packaging, reduce packaging mass by 20% (allowing for more efficient transportation), and decreases environmental impact by 30%.



In 2017 alone,  
Braskem  
completed 14  
new LCA studies



## LESS POLLUTION



**Results** showed that replacing **5%** of the annual market of traditional paint containers with plastic buckets would reduce **CO<sub>2</sub>** emissions by the equivalent of removing all cars from the city of São Paulo for one hour.

## Externalities

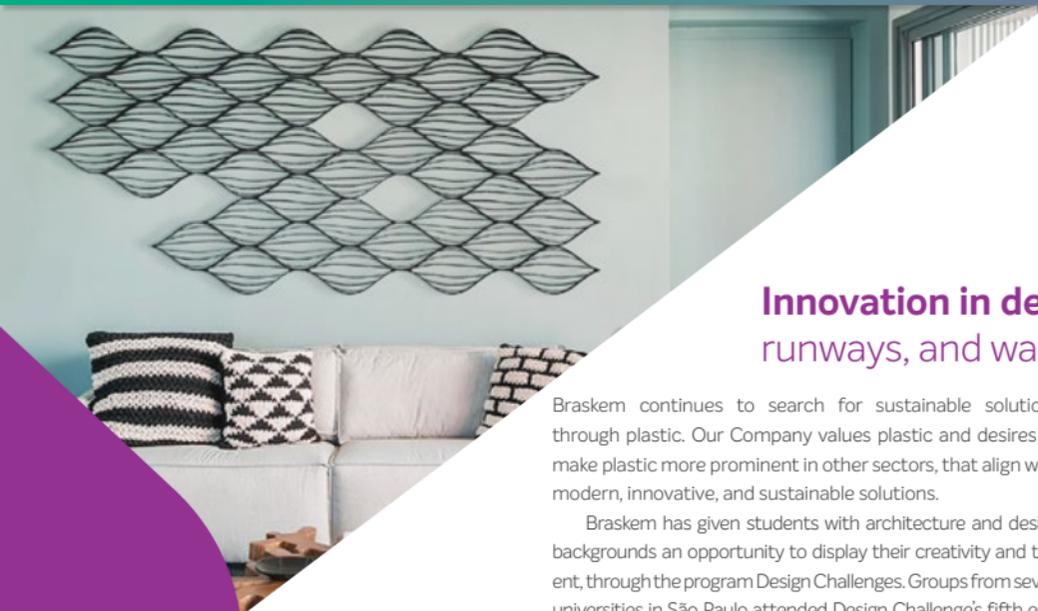
Another important project Braskem worked on in 2017 was an externalities study completed with the British company Trucost, focused on packaging of perishable foods. This study calculated the total cost of packaging (normal costs plus negative externalities) and compared it to the benefit they bring by reducing food waste. Three types of foods were evaluated: yogurt, rice, and meat. Today, packaging accounts for nearly 40% of the consumption of plastics and 80% is discarded after a single use. Packaging is fundamental to the protection of food considering about 1.3 billion tons of food goes to waste each year.



**Yogurt:** The use of plastic in packaging preventing waste four times greater than the cost of producing the plastic and its final disposal.

**Rice:** Uses only two grams for each packaged kilo, 43 times more efficient than selling in bulk.

**Meat:** The use of plastic is 148 times more economical than if the product were sold without wrapping.



## Innovation in design, runways, and walkways

Braskem continues to search for sustainable solutions through plastic. Our Company values plastic and desires to make plastic more prominent in other sectors, that align with modern, innovative, and sustainable solutions.

Braskem has given students with architecture and design backgrounds an opportunity to display their creativity and talent, through the program Design Challenges. Groups from seven universities in São Paulo attended Design Challenge's fifth edition for 2 months and created a collection, all in plastic, of floors, floating walls, and coatings after being tutored and mentored.

After two months of training and mentoring, the winner of the 5th edition was from the Mauá Institute of Technology, with a concept inspired by biomimicry, a contemporary architecture current that seeks sustainable solutions in nature, allowing for more organic forms. Moving forward, the project will be analyzed and detailed for commercialization by the company Atex, Braskem's client and partner in this edition.



### GREEN FASHION AND 3D

Plastic can also be seen as a trend in the fashion world. And that's what the partnership between Braskem and the brand À La Garçonne showed in the last edition of São Paulo Fashion Week. Bracelets and buttons used in the collection were produced through 3D printing using Green Plastic a proposal aligned with the concepts of environmental preservation, recycling, upcycling, and reuse.

Another initiative of great importance to Braskem was the renewal of the sponsorship of the Brazilian Paralympic Track Team for four more years. Through this initiative, we will assist in the development and technical preparation for the upcoming national and international competitions, including: the South American Games in Argentina in 2018, the Parapan American Games, World Championship in 2019, as well as the Tokyo Paralympics in 2020.

Since 2015, Braskem has supported the Brazilian Paralympic Track Team. This initiative is strongly aligned with our belief that chemicals and plastics improve people's lives. Plastic is especially beneficial for parathletes, since it has a practical application in prostheses, making them lighter and more comfortable, helping to improve the performance. The sponsorship will benefit 31 athletes and 12 guiding athletes on the Brazilian team, between the main and juvenile teams in the track and field events.

# STAKEHOLDERS

## INSPIRING RELATIONSHIPS

Braskem's development and sustainable growth would not be attainable without the help from our main stakeholders; Members, Communities, and Business Partners.



## Members 103-2, 103-3

Braskem is a Company focused on the growth and development of our Members. Our company is constantly seeking innovative practices to meet the needs of stakeholders. We believe in the potential of our professionals, and work in a manner that motivates others to overcome market challenges with courage, ethics, and daring.

### MODERN AND READY FOR THE FUTURE

The chemical industry remains foreign necessity to many consumer's. However, we believe in our Belief and Purpose , and we are focused on creating sustainable solutions that will improve the lives of others.

In recent years, Braskem faced major internal and external challenges, but the Company began 2017 with positive restlessness in hope to discover modern people management models to strengthen the engagement of Members and attract new people for Braskem's future.

To this end, we developed an Employee Value Proposition (EVP), to understand changes in society, impacts on the work environment, and to allow members to express their values



### Most beloved company

We rank fifth among the 50 companies most beloved by its Members according to the Love Mondays ranking, a platform that receives spontaneous and anonymous evaluations from employees about professional satisfaction with organizations.

and expectations for the future of Braskem. The Employee Value Proposition (EVP) conducted interviews with Leaders in all locations, analyzed results of over 5,000 spontaneous responses from Members globally, and held focus group sessions with over 300 Members and market professionals in all Braskem locations. As a result, we began building our Value Proposition, representing our commitment to people. With this proposition, we would like to promote the satisfaction and pride of belonging to all Members, who are at the heart of our growth strategy.



## OUR VALUE PROPOSITION

Consisting of seven pillars, the Value Proposition can be experienced every day through relationships between people, our purpose, career and development opportunities, recognition and rewards practices, and other initiatives, and will work as a guideline for evolving our practices and processes.



### You are the protagonist

Relationships based on trust and autonomy are the key to transformation. Here you are encouraged to make a difference, every day.



### Challenge and be challenged

We are inspired to question common opinion and challenge each other. So we are always evolving and learning.



### Co-create your ideas

Innovation comes to life when working as a team. Do you have an idea? Share. Connect. Make it happen



### Build Your Own Path

We believe there are many paths to success. And you will always be encouraged to walk your own.



### Grow with us

Here the growth opportunities are great. Be part of an ethical, transparent, and prosperous company that always seeks to go further.



### Feel proud of what you do

Participate in sustainable solutions that improve people's lives. With an innovative attitude, your work benefits society and the planet.



### You're free to be yourself

At Braskem, diversity and respect are essential. Here you are valued for being who you are and the opportunities are the same for everyone. No exceptions.

## The freedom to be who you are

In November 2017, Braskem launched the free dress code initiative for all Members, which correlates to the cultural transformation project that had a major impact on people's daily lives. Professionals no longer need to follow the classic dress attire which includes; suits, ties, high heels, and other social attire accustomed with the corporate world. The free dress code allows Braskem Members to dress in the way that suits them best.

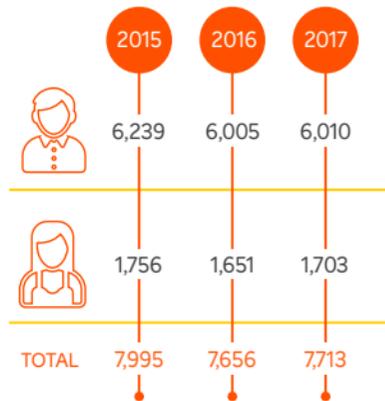
In the industrial areas, it is still mandatory to follow specific HSE guidelines regarding uniforms and protective equipment. However, in the plant offices and administrative areas, Members, visitors and third parties may wear any type of clothing, keeping in mind what is appropriate to job commitments using common sense.

Although it may sound simple, this action was an important step to appreciating individual expression as part of our workday. With a flexible work environment, Members are exposed to diversity and individuality.



## WHO WE ARE?

TOTAL NUMBER OF MEMBERS  
(WORLDWIDE) <sup>[405-1]</sup>



MEMBERS BY EMPLOYMENT TYPE AND WORK REGIME (2017) <sup>[102-8]</sup>

		BRAZIL	UNITED STATES	GERMANY	MEXICO	INTERNATIONAL OFFICES	TOTAL
Employment type	Permanent	5,981	699	167	785	60	7,692
	Temporary	15	0	6	0	0	21
Work regime	Full time	5,991	696	163	785	60	7,695
	Part time	5	3	10	0	0	18

RATIO OF SENIOR MANAGEMENT HIRED  
WITHIN THE LOCAL COMMUNITY <sup>[202-2]</sup>

	2015	2016	2017
Brazil	52%	53%	56%
USA	N/D	N/D	N/A
Germany	63%	67%	67%
Mexico	21%	26%	29%
International offices	38%	0%	0%
Grand Total	49%	49%	51%

\* Members of senior management are Members from grades 3 to 10 that have direct reports (managers, directors, vice presidents, and president). To calculate the number of leaders from the local community (born in the same state where they work), we used the number of leaders in senior management positions versus the place of birth, with the exception of the United States, which does not have this information (for legal reasons). This indicator is monitored for all countries where Braskem operates, those with industrial units and those with only commercial offices.

 RATIO BETWEEN THE LOWEST SALARY COMPARED  
WITH THE LOCAL MINIMUM WAGE\* <sup>[202-1]</sup>

	2015	2016	2017
Alagoas	1.5	1.5	1.5
Bahia	1.6	1.6	1.6
Brazil Rio de Janeiro	2.2	2.2	2.1
Rio Grande do Sul	1.8	1.8	1.8
São Paulo	1.7	1.8	1.7
United States	2.9	3.1	3.1
Germany	2.0	2.0	2.0
Mexico	3.6	3.5	3.6

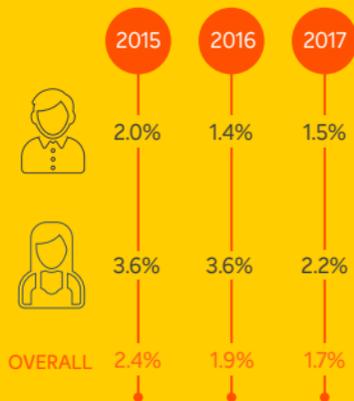
\* The calculation method used considers the lowest salary paid by Braskem using the Hay table (a table of salaries and wages established by Braskem) valid until December using 85% of the range in Brazil and Mexico (lowest percentage of the range that varies between 85 and 115) and 80% of the range in the United States and Germany (smallest percentage of the range that varies between 80 and 120) of the smallest wage compared with the local minimum-wage that is established through local bargaining agreements, for Brazil, and the local minimum wage for non-unionized Members. At all locations, Braskem offers Members salaries above the minimum wage in the region.



### HISTORICAL RATE 401-1

In 2017, Braskem hit its lowest voluntary turnover record in the last four years. In 2009, the index monitored voluntary termination rate was 17% globally, and 11% in Brazil. As a Company, we believe that the good working environment contributed strongly to this positive result, reinforced by the actions built based on the result of the Environmental Survey carried out in 2016. In addition, in 2017, the number of people hired (535) surpassed the number of people terminated (429), and in the last two years, the turnover ratio of women hired was higher than men: 9.6% versus 6.2%.

### VOLUNTARY TERMINATION RATE



### DIVERSITY 405-1

Diversity is respecting people as they are, valuing differences to create an environment of collaboration, coexistence, and development. At Braskem, we have been working to create an inclusive and welcoming environment, guaranteeing each member equal opportunities through the Diversity & Inclusion program. In addition, we have developed specific strategies and objectives for five work fronts, which include: Gender Equity, Race and Ethnicity, LGBTQIA (Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, and Asexual), People with Disabilities, and Social and economic (socially vulnerable people), each with its own specific strategy and objectives.

**We revised our recruitment and selection directive in order to align the criteria and guidelines with promoting diversity at Braskem**





On the front concerning gender, we are guided by the Women's Empowerment Principles of UN Women and the Global Compact; in Race and Ethnicity, we follow the Pro-Equity Program of Gender and Race of the Brazilian Federal Government; and in LGBTQIA, we are guided by the principles of the Business and LGBT Rights Forum, an initiative to which we were the first large Brazilian company to become a signatory.

Braskem takes actions to stimulate an inclusive environment and promote diversity throughout the workplace, by focusing on communication, promoting training and engaging Leaders and Members in the topic. Our company conducts

training in the following departments; People & Organization, Communication, Marketing, and Sustainable Development. The focus on diversity was also included in leadership development programs, and programs for interns and recent graduates. Annually, our Company holds the "Braskem Forum on Diversity and Inclusion", an action conducted in all regions and, in 2017, we presented the topics of unconscious bias and the importance of promoting empathy. In addition, Braskem has a structured communication campaign and a logo, which represents all our action fronts through colors, demonstrating our goal toward continuous inclusion.

**Braskem has created Diversity and Inclusion Working Groups to support the development of fronts in the Diversity & Inclusion program. The three different fronts developed in the Diversity & Inclusion program include: Race and Ethnicity, Gender, and LGBTQIA, with a total of ninety members**



## GENDER EQUITY

The gender equity front aims to promote equal opportunities and empower women. Braskem's main focus is to increase the number of women in leadership positions, industrial positions, and in innovation and technology positions. Braskem has held three versions of the Women's Forum throughout Brazil, addressing topics that contribute to empowering women and breaking gender stereotypes, and offered career workshops focused exclusively on women at those Forums. Braskem partnered with UN Women in 2017 to train teachers in the Board of Education on the course entitled "O valente não é violento" (in loose translation: "Being brave doesn't mean being violent") in Camaçari (Bahia), was given to support eliminating violence against women and girls in the region.

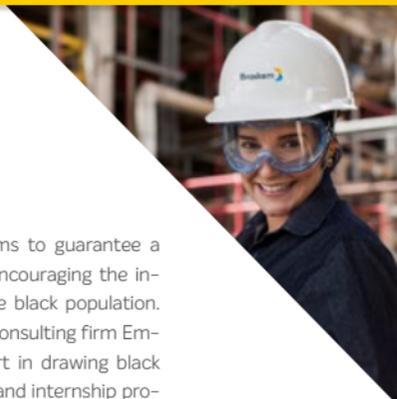
One of the concerns on this front is thinking about how the gender conflicts with race, sexual orientation, gender identity, and social vulnerability. Our Company has developed pillars of action: Women's Career, Maternity and Paternity, Health and Safety, and Communities and Procurement. In addition to the structural issues.

## RACE AND ETHNICITY

The Race and Ethnicity front aims to guarantee a racism-free work environment, encouraging the inclusion and empowerment of the black population. Braskem has partnered with the consulting firm Empregue Afro, which offers support in drawing black candidates to full-time positions and internship programs, with Zumbi dos Palmares College.

## LGBTQIA

The LGBTQIA front aims to make Braskem an inclusive environment, that allows individuals to be themselves. Braskem aims to elimination of any form of homophobia and transphobia to the workplace to make members feel comfortable. Our Company clearly states its position on the topic in all cross-sectional actions on diversity and offer equal benefits and recognize all forms of family structure. Our Company participated in "Out and Equal" with the LGBTQIA working group, and we were the first Brazilian company signatory to the Business and LGBT Rights Forum.



## STRATEGIC INDICATORS

Monitoring indicators is one of the strategies of the Diversity & Inclusion program.

### Brasil



**22% women**, of which  
**25% are in leadership positions**



**29% are black Members**,  
of which **13% are in leadership positions.**

In Mexico, the United States, and Germany, the Diversity & Inclusion program is in the early stages of development.



To learn more about our diversity processes, visit [www.braskem.com.br/diversity](http://www.braskem.com.br/diversity)

## DEVELOPMENT BASED ON CHALLENGES AND THE LEADER-SUBORDINATE RELATIONSHIP <sup>404-3</sup>

At Braskem we believe that the development of our Members is a fundamental asset to the Company's growth and future. Every year, all professionals participate in a performance management cycle which monitors and evaluates their performance based on the goals of the Program of Action (PA) agreed upon by their Leader. Each Member, is required to follow an individual program to receive their variable compensation linked to the achievement of goals aligned with the Company's Culture.

Once the evaluation is complete, results are examined and new guidelines are set. The evaluation considers the Member's contribution to the organization in quantitative terms (Agreed Upon Results - Calculated Portion), and their alignment to the culture (Assigned Portion), evaluated through the Culture Competencies.

The performance management cycle is based on the relationship and challenges between Leader and Subordinate, and comprise four stages

(Planning/Pact, Monitoring, Evaluation, and Judgment). The Leader assesses the Member's next steps in a clear, fair, impartial manner, aligned with the Company's goals and culture. In addition, this cycle identifies opportunities for development when planning challenges for the following year or in the Plan for Education for Work, including actions supporting Continuing Education and recommendations for corporate programs.



### JOINT GROWTH [404-3](#)

We believe in the potential of our Members, and seek to invest in educational and leadership preparation projects that will impact Braskem. In 2017, over BRL 21.2 million was invested in training 7,438 Members worldwide. Some of the main programs include: Operator Training Program, attended by 92 Members, the Technical Skills Development Program, which included 96 Maintenance Team Members and 60 engineers, the Educator

Leaders. Development Program which trained 84 leaders in Brazil, 72 in the United States, and 57 others through distance education on the Leaders' Self-Development Platform and the LMS Platform. Throughout this program, 691 Leaders in Brazil, Mexico, USA, and Europe were evaluated in the People and Succession Planning process, which ensures succession planning for the Company's strategic positions.

In 2017, Braskem was the winner of the Top Ser Humano ABRH RS (Top Human Being - ABRH RS) award, with the case "Change Management at the PE5-Slurry plant improved work environment and productivity" in the Organization category, and was recognized in the United States (Philadelphia and Pittsburgh) as one of the "Top Workplaces to Work For."

### STARTING A CAREER [401-1](#)

As part of our belief in the future and capacity for innovation, Braskem helps young adults who choose our Company as their first step in the job market to improve their potential. Our Company immerses young adults in the everyday life of a global company, and includes them in various projects and initiatives that ensure their professional maturity. In addition, we have several internal training programs, as well as programs developed with entities such as SENAI (National Industrial Learning Service), technical education schools, and universities.





We were recognized by the publication **Guia Você S/A** among “The Best Companies to Start a Career” voted by an audience of young adults (born after 1991).

- **Young Partner Programs:** targets university students and offers 205 opportunities. It teaches young professionals how to communicate with experienced leaders and expand their knowledge of the business through three modules that addressed: organization, business tasks, and client. Currently, Braskem has 13,000 students enrolled, of which 15% declared themselves as blacks and pardos, while 54% of interns hired were women. The interns hired from January to March aligned with initiatives carried out in 2017 to promote diversity. The program included 31 former interns, now with degrees as junior analysts and/or junior engineers.

- **Technical Internship:** focused on training future members of the technical areas of Maintenance, HSE, and Laboratory. This program lasts one year and offers students from technical courses a rich practical experience in their work area, as well as a development trail, which supports day-to-day operations. In 2017, we offered 97 new positions for technical internships at all Brazilian locations where Braskem has industrial operations: Mauá (SP), Paulínia (SP), Duque de Caxias (RJ), Triunfo (RS), Maceió (AL), and Camaçari (BA).

- **Operator Training:** in 2017 we offered 96 positions for operator trainees. This program lasts six months, and allows students to apply skills they gain from educational institutions to a professional work setting. Once this program concluded, Braskem hired 59 (61%) trainee operators. In addition, SENAI opened 11 classes of the Technical Course in Petrochemicals in the Brazilian states where Braskem has industrial plants. The program content was built in partnership with the institution, meets industry demands, and includes the appropriate technical training to prepare new chemical and petrochemical process operators. Today, we have 346 students enrolled in SENAI, and plan to complete the training in 2018/2019. New classes will be opened annually.

- **Associates (USA):** this year, the 2015 class was concluded, hiring six young adults to be Members after presenting their final projects to the leaders. The group that began in 2016 started the second period of the program, in which nine young adults presented the first version of the project and two of them were hired as Members. The 2017 class started with five young adults who completed their training on first Six Sigma.

## COMPETITIVE STRATEGY

The Remuneration Policy at Braskem is a competitive strategy for the market, based on the premises of: transparency for Members, internal relativism, ensuring the balance between Members regarding job maturity, the size of the challenge of the action program, individual skills, external relativism, comparing salary surveys, global benchmarks, and individual growth aimed at obtaining and surpassing agreed upon results.

The Remuneration Strategy is guaranteed by the daily management of the Leader-Subordinate relationship, in which Members are rewarded based on meritocracy and the achievement of results agreed upon annually, the latter regarding the Profit Sharing Program Short-Term Incentive whose differential is in measuring each Member's evaluation and the Company's performance.

As a complement to the Fixed and Variable Remuneration Strategy, we offer, to all Members regardless of job category, benefits such as: Health and Dental Plans, Private Pension,

Life Insurance, Maternity and Paternity Leave, Meal Voucher; and others. [\[401-2\]](#)

For the Members of units in Brazil who intend to retire, we offer the option to participate in the *Horizontes* program, which, for one year, prepares and supports professionals and their families for the post-career transition process. The Horizontes program consists of an e-learning module and a three-day classroom module, totaling 24 hours of training, and has two fundamental pillars:

- **Reflection on life and career:** awareness the upcoming phase in life.
- **Knowledge management:** to ensure the continuity of the Company's business, through a structured knowledge process acquired by the member throughout his or her career that is important for Braskem's succession process. [\[404-2\]](#)



## TRADE UNION RELATIONS 102-41, 403-4

Labor unions are entities that legally represent the Members of a company. Braskem uses open and constant dialogue between various trade union representatives in countries Braskem conducts business in order to solve a labor or union conflict.

In Brazil, the Labor and Trade Union Relations area is responsible for conducting negotiations on Collective Bargaining Agreements and Conventions, which address economic, social, health, safety, working conditions and environmental issues. These agreements are conducted annually or on specific dates in each region where the Company is present.

Trade Union Relations support the Company's leaders, by training them in labor and social security matters, so they manage their teams better, and minimize possible conflicts.

In other countries, freedom of expression, workers' option for union association, and above all, the establishment of bipartite commissions and committees (of worker and company representatives) are also respected for training and monitoring, especially on issues related to health, the environment, and other topics of interest.

	BRAZIL	UNITED STATES	GERMANY	MEXICO	INTERNATIONAL OFFICES	TOTAL
Members covered by collective agreements	5,928	60	0	327	0	6,315
Total number of Members	5,996	699	173	785	60	7,713
Percentage of Members covered by collective agreements	99%	9%	0%	42%	0%	82%



## Communities

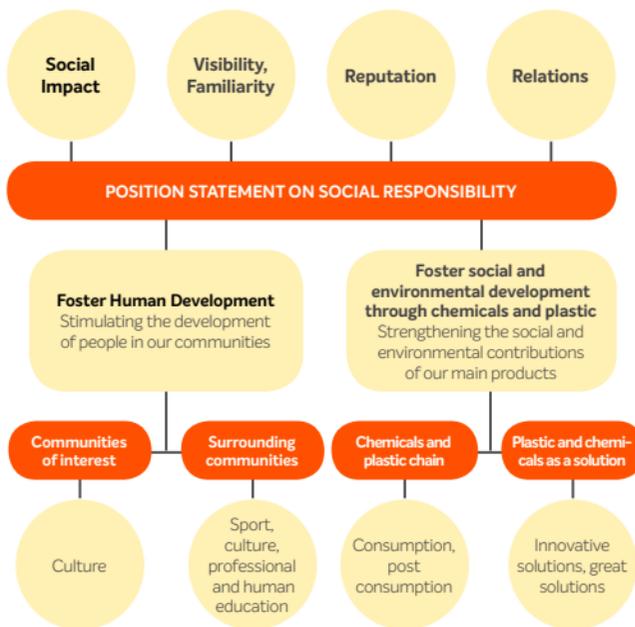
203-1, 103-2, 103-3

As a Company, it is our responsibility to contribute to the environment and create value for the well-being of others in regions where our Company is present. As a Company, we are guided by pillars that influence our actions and initiatives with communities and stakeholders: human development as well as social and environmental development. In 2017, we improved our social responsibility projects to work more effectively in communities and further address the social needs of the regions.

### HOW WE STRUCTURE OUR CAUSES

Braskem's dedication to working with Communities has been an essential contribution to the construction of four strategic objectives that guide our projects: generate social impact, strengthen our reputation, get closer to our stakeholders, and increase the visibility and familiarity of our actions. In addition, we seek to link our projects with topics that are increasingly strategic for Braskem – recycling, encouraging innovation, and environmental education. Braskem continues to reinforce existing initiatives and establish new partnerships in the regions where we operate.

### Strategic Objectives



### GLOBAL SCENARIO

**Brazil**  
34 projects  
BRL 18.2 million<sup>8</sup>



**USA**  
36 projects  
BRL 887,000



**Mexico**  
4 projects  
BRL 759,000<sup>9</sup>



**Germany**  
5 projects  
BRL 16,000



<sup>8, 9</sup> Amount considers projects, sponsorships and donations.



### ADVANCING COMPLIANCE PRACTICES IN DONATIONS 203-1

In 2017, Braskem launched the Sponsorships and Donations Procedure and Guidelines in Brazil, that has provided the Company with a clear path that aligns with our social, environmental, ethical, technical, and commercial responsibility. Our team has revised the entire process for selecting, assessing, and approving proponents and their respective projects, and added a phase after project completion for rendering accounts and verification. During the year, 100% of the donation processes were evaluated according to the new guidelines. Control tools are being implemented in other countries, which should be consolidated in 2018.

### GENERATING POSITIVE IMPACTS 413-1

Through our Company's projects, we seek to generate positive social impact and strengthen the relationship with communities. In 2017, 144,000 people benefitted from all Braskem locations<sup>10</sup> in different categories of activity that emphasized education, culture, and sports. Some projects include:

#### Global Volunteering Program

At Braskem, we believe that corporate volunteering contributes to the development of individuals, business's, and societies. Braskem has gone one step further and developed a pilot project called the Global Volunteering Program with the theme "Serving together to improve people's lives." Our Company invested BRL 550,000 in this pilot project to demonstrate that it is possible to carry out a global social responsibility program that suits the needs of each region.

The Volunteering Program formed 74 teams in Brazil, USA, and Mexico. Each team chose an institution near the Braskem operations to carry out volunteer work, and conducted activities based on Braskem's 10 Macro-Objectives for Sustainable Development. Over 359 Braskem professionals from Brazil, Mexico, and the United States, and 497 guest volunteers (family and friends of Members) participate in a collaborative competition with limited duration, collecting over 18,000 items. Once the time duration was complete, the top three teams in each country won recognition and organizations received a donation of goods and products.

<sup>10</sup> 100% of countries with significant operations (industrial units).



**74** teams formed

**856** participants in Mexico, USA, and Brazil

**4.7%** of Members engaged

**1,222** volunteer actions carried out in NGOs in the communities surrounding Braskem units (operational and offices)

**4,550** hours worked

**18,786** items collected

**91%** would participate again in 2018



## PLASTIANGUIS

In Mexico, we launched “Plastianguis”, a volunteer project carried out by over 50 Members of Braskem that promoted the collection of recyclable plastic waste in the city of Nanchital, in exchange for baskets of food staples. The six tons collected during the event were sent to a local recycling cooperative. Braskem partnered with the National Association of the Chemical Industry (ANIQ) which benefitted the environment, community, and provided items of the basket of food staples in exchange for waste collected.



## RELATIONSHIP OF TRUST

In Mexico, Braskem Idesa continuously works on the relationship with the three communities (Pollo de Oro, Nahualapa, and Lazaro Cárdenas) around its industrial operation. Eighty visits are conducted every month with the purpose of disseminating and integrating residents into social programs such as Community Health and Safety, Social Investment and Stakeholder Relations.

This constant presence was instrumental to strengthen our relationship with the Lazaro Cárdenas Community in November 2017 during suspected air contamination. Government and industrial entities such as Civil Protection and CLAM (Local Committee of Mutual Assistance) confirmed normality of the operation.

## Transformar Agora

Braskem partnered with NGO Atina and started the project *Transformar Agora* (Transforming Now), created to encourage students to search for activities that benefit the school community, and provide high school youth with an opportunity to design projects that may be applied to improve daily life in schools and their community, and allow students to recognize themselves as agents of change. This project is active in State Public Schools Professora Maria Josefina Kuhlmann Flaquer, Luís Washington

Vita, and José Daniel da Silveira in the ABC Paulista region (Brazil). The initiative stimulates the search for activities that benefit the school community, providing high school youth with the opportunity to conceive projects that may be applied to improve daily life in schools and their community, allowing them recognize themselves as agents of change.

The program’s methodology seeks to empower young people to feel capable of transforming reality. The students involved were divided into groups

and participated in workshops to develop projects that may be applied in the community and in schools. Educators voted on the best idea to present in front of a panel of community leaders and educators held at Braskem. The project *Mega Ação Solidária* (Mega Solidarity Action), created by students from the Luís Washington Vita school to collect clothes, food, and other items for donation, won the competition, but several other projects were successful and will continue in 2018.



### Ser+realizador <sup>[301-3]</sup>

Ser+realizador is a project that takes place in all regions where we have operations in Brazil, and works with waste sorting cooperatives, to promote **social inclusion** and the **social and economic development** of waste pickers and cooperatives. In 2017, 1,278 pickers and 35 cooperatives benefited from technical advice, training, equipment, and infrastructure. The decrease in numbers compared with 2016 is due to an attempt to relocate the program, which now operates in regions surrounding Braskem. Our company managed to work closer with each picker, resulting in a deeper and more lasting process of change. This

project aims to promote the development of the national recycling chain and foster recycling of post-consumer waste in the country.

In 2017, we hired the cooperative, Mãos Verdes as the national manager of the project, to unify management and ensure a better relationship with the public sector. The company has been partner's with Braskem for several years working on the **Todos Somos Porto Alegre** project, and will now manage Braskem's five regions of operation.

In 2017, the total invested in the project was BRL 1,966,508.50.

	2015	2016	2017	GOAL
Pickers benefitted	3,538	3,444	1,278	1,255
Pickers trained	1,117	858	326	497
Pickers with increased income	960	787	531	789
Volume sorted (t)	25,703	30,824	14,352	27,116



### DECENT WORK AND POST-CONSUMER



Braskem has created the Ser+realizador project and the WeCycle platform that conduct preventive audits in 100% of recyclers and supplier waste sorting cooperatives, guaranteeing recycled plastic raw material with quality, traceability, process regularity, and socially and environmentally responsible operations throughout the recycling cycle.

#### Edukatu

Since 2013, we have developed a project called Edukatu, through a partnership between Braskem and the Akatu Institute. This project has helped disseminate concepts about conscious consumption and sustainability to teachers and students of elementary education in Brazil. Over the last five years, the online platform has reached over 100,000 people, and 20,148 children and teachers have followed the teachings.

In 2017, Edukatu improved its performance through cooperation agreements signed with the Municipal Boards of Education. This project was distributed to over 80 schools in Greater São Paulo, and engaged 2,538 people. In addition, Edukatu website surpassed the 2.6 million view mark and was cited in nearly 700 media articles. Braskem invested BRL 230,000.00 in the project.

	2015	2016	2017	GOAL
Total number of participants	20,795	28,441	38,773	40,700
Total number of teachers engaged	669	1,605	2,586	1,980
Total number of students engaged	6,558	11,172	17,562	14,600

### Instituto Fábrica de Florestas (IFF)

In 2015, Braskem developed the IFF (Forestry Factory Institute) project with the communities surrounding São Paulo, Rio de Janeiro, and Bahia (Brazil). The project works toward the expansion, recovery, maintenance of green areas, and integrated environmental education in those states. Today, the organization continues to empower residents to collect seeds, produce and plant native seedlings, and maintain planted areas. The IFF is maintained by Braskem, Cetrel Odebrecht Ambiental and the Industrial Development Committee of Camaçari (Cofic), in Bahia (Brazil).

In 2017, Braskem invested BRL 730,000.00 in the project, which includes the donation of BRL 250,000 to the creation of an institutional documentary video of the project in webseries format for the Internet and smartphone, maintenance of the website, and the creation and maintenance of pages on YouTube and Facebook. These communication platforms aim to increase the dissemination of Ecoparque Sauípe and attract new visitors.



	2015	2016	2017	GOAL
Seedlings produced	116,572	88,407	55,009	70,000
Seedlings planted	39,206	46,628	47,428	33,100
People trained	1,064	1,036	1,421	750
People impacted	16,739	27,506	22,883	15,000

To learn more about our actions with Communities, visit [www.braskem.com.br/communities](http://www.braskem.com.br/communities)



### TRADITIONAL PEOPLES

Since 2015, the participatory fishing monitoring program has been tested and implemented in the communities on the island of Ilha de Maré by the Global Maré Institute, with the support of Braskem. The participatory fishing monitoring program is an innovative fishery management tool that annually empowers 100 fishermen to live a traditional way of life. This innovative tool has made it possible to create collective spaces for discussion that protect and improve local knowledge on fishing, and promote synergy among local residents who depend on the quality of artisanal fishing. This synergy resulted in

the creation of the Institute of Artisanal Fishing, whose headquarters were inaugurated in April 2018.

This program provides data for emancipatory environmental education, where social players are responsible for identifying problems and recommending possible solutions. The itinerant Environmental Tent works in schools to share knowledge with children from the regular population. As a result, 125 children were educated by 6 trained local agents.



## Suppliers 103-2, 103-3, 308-1, 414-1

At Braskem, we value our Suppliers and consider them an essential part of the production chain. Our Company closely follows the work developed with these partners, seeking attitudes in line with our ethical, social, and safety principles, through a decentralized management structure with areas responsible for analyzing expenses, assessing the quality of products and services and compliance with the Code of Conduct.

Our Company's Third Party Code of Conduct, which corresponds to the Corporate Policy, is inspired by documents ranging from the UN Universal Declaration of Human Rights to the procedures recommended by the International Labor Organization (ILO) and the laws and regulations of countries where Braskem operates.

At Braskem, we believe we are an active participant in the challenges our partners face during labor practices. In support of this belief, our Company requires specific documentation, signing the Code of Conduct (which includes aspects such as business integrity, human rights, and labor practices), in addition to completing an evaluation form on sustainability practices.



### Prioritizing actions

As a Company we evaluate practices that protect and promote Human Rights in our operations of our Suppliers in accordance with the UN Guiding Principles on Businesses and Human Rights. As a result, we prepared our first potential Human Rights violations matrix in 2017, facilitating the immediate inclusion of this aspect in the corporate risk matrix that is monitored by our executives and/or our Board of Directors.

The Human Rights violations matrix has guided Braskem to prioritize actions, and ensure the construction of assertive action plans capable of readjusting four elevated risks to become moderate risks in 18 months. One of the aspects covered this year was our work in the logistics chain to protect children and adolescents from sexual exploitation.



[www.braskem.com.br/ethics-line](http://www.braskem.com.br/ethics-line)

The Third Party Code of Conduct is available for download at [www.braskem.com.br](http://www.braskem.com.br) > Suppliers



PERCENTAGE OF PURCHASES  
BY SUPPLIERS BY COUNTRY\* 204-1

		2015	2016	2017
Brazil	Domestic	64%	76%	71%
	Foreign	36%	24%	29%
United States	Domestic	99%	99%	93%
	Foreign	1%	1%	7%
Germany	Domestic	96%	94%	97%
	Foreign	4%	6%	3%
Mexico	Domestic	-	84%	75%
	Foreign	-	16%	25%

\*To calculate this indicator, we considered as "local" domestic suppliers, and locations with significant operations are the countries that have industrial units.



### MAIN SUPPLIERS CATEGORIES

**Ethanol:** this product, as well as its Suppliers, has one of the most rigorous management processes at Braskem in order to guarantee a resin with quality, social and environmental responsibility throughout its production cycle. In 2016, we launched our Responsible Ethanol Purchasing Program, which has two pillars: Compliance and Excellence. Its goal is to guarantee compliance with mandatory requirements and to improve the desired parameters: slash and burn, biodiversity, and best environmental, human rights, and labor practices.

**Fossil raw materials:** this product is essential to Braskem, suppliers of fossil raw materials account for our largest share of expenditures. The products in this category include; naphtha, condensate, ethane, propane, and LRH in Brazil, ethylene and propene in the United States and Germany, and ethane in Mexico.



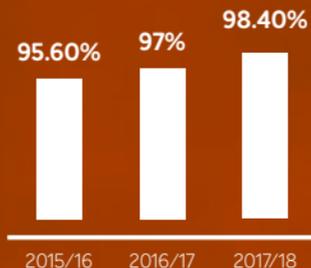


## Ethanol Supplier Management

Ethanol Supplier Management has two pillars: Compliance and Excellence. The former establishes the mandatory requirements and the latter indicates the desired parameters for continuous improvement. In 2017, Braskem purchased 99.5% of ethanol produced by suppliers formally committed to these requirements and parameters, and only 0.5% SPOT suppliers. SPOT purchases are limited to 20% of the total purchased annually, a practice adopted in order to train new suppliers. Beginning in 2018, SPOT suppliers will sign the Third Party Code of Conduct.

To ensure compliance, 100% of committed suppliers, and a sample from their sugarcane suppliers are audited by third parties every two years. In 2017, Control Union audited 88% of its supplier plants, which demonstrated the continuous annual evolution of their partners.

### % COMPLIANCE



Of cases of non-compliance, none violate human labor rights (such as slave or child labor, lack of employment agreement, working hours, etc.) or ownership rights (all have proven ownership or right to use the land, unchallenged by third parties). This demonstrates that the negative image of agricultural activity involving slave labor and social injustice is not a reality for our qualified partners.

### PROCUREMENT 102-9

The Procurement department is responsible for hiring services (industrial and corporate), purchasing direct materials (inputs), and indirect materials (MRO) and equipment, with the main objective of providing resources competitively to industrial plants and administrative areas to ensure continuity of operations and perpetuity of the business. The main goals of the department are linked to financial gains from negotiation, Supplier delivery deadlines, efficiency, and compliance of procurement processes.

In 2017, the Procurement area took an effective step towards globalizing its processes, Procurement teams from Mexico and the United States reported to the department located in São Paulo, Brazil. From this collaboration, we gained a more efficient strategic view of operations and of the needs for inputs, materials, and equipment. Braskem implemented a Global Procurement Policy that will help align processes and integration, bringing more synergy to our business.

### PERCENTAGE OF THE NUMBER OF SUPPLIERS BY TYPE OF SERVICE



## RESPONSIBLE MANAGEMENT

103-2, 103-3, 308-1, 414-1

To ensure an increasingly robust, responsible, and reliable Supplier management process, we have created the Supplier Radar tool. In 2017, given the economic scenario, the use of the tool was reinforced, helping to identify, in advance, companies that are more exposed to labor, economic, and Health, Safety, and Environmental risks. These risks encouraged Braskem to design an action plan for Suppliers classified as critical and high risk, to act preventively and minimize possible risks. The Supplier Radar is published quarterly, evaluating nearly 80 Suppliers each cycle.

Another tool Braskem uses is the Supplier evaluation process, which generates the Supplier Performance Index (IDF), applied to all companies to consider after evaluating the Sustainability criteria. The index includes criteria for Quality, QM (history of non-conformities), Punctuality, HSE, Finance,

and Compliance. The non-conformities identified are handled through an action plan involving users, Suppliers and the Procurement area.

In 2017, the Procurement area also continued to support the CDP Supply Chain program, which requests our Suppliers to report their greenhouse gas emissions, as well as the risks and opportunities related to this aspect and the strategy to ensure improved management. In 2016, Braskem Idesa (Mexico) joined the program, expanding its participation in 2017. Today, we are seeking to engage our partners in the topics of Climate and Water, structuring a more thorough critical analysis of their performance. In the year 2017, we were recognized twice: on the "A List" of the CDP Supply Chain Climate, and when we ranked 29th among the companies with the best supplier engagement strategy in the world, out of the 3,300 evaluated by the CDP.

## Sustainable Procurement

Braskem is in the pilot phase of implementing the Sustainable Procurement Tool, which enables the Company to incorporate sustainability criteria in the selection of Suppliers in procurement processes. The tool allows for a comparative analysis of suppliers' maturity according to established criteria, which include environmental and human rights issues on water consumption, generation and disposal of waste and effluents, health and safety at work and in our surroundings, as well as governance, guarantee of proper working conditions, and other topics.

Braskem works to increase the volume of suppliers in the regions where the Company conducts business. In December 2017, our Company partnered with Sebrae in Rio de Janeiro to focus on increasing the production chain of Suppliers aligned with the area's Sustainable Development planning. Out of the fifteen micro- to medium-sized companies selected, eight completed the entire process, and received specialist training in the Business Management, Finance, Quality, Documentation, and Corporate Strategies modules. After 700 hours dedicated to training, a huge transformation was made in the management indicators of their business.



## LOGISTICS

At Braskem, our Logistics area works with the Health, Safety and Environment (HSE) team, to ensure compliance with all social and environmental requirements critical to operations when contracting transport, terminals, and other logistics services. Our Company follows the evaluation guidelines based on Braskem's performance assessment system, vetting<sup>11</sup>, and ABIQUIM's System for the Evaluation of Safety, Health, Environment, and Quality (SASSMAQ).

In 2017, Safety of Processes in Logistics organized the program to study risks involving six new products whose operations are classified as medium risk, based on volume transported and their level of hazard. All products of medium and high risk were evaluated, totaling over 23 products and analyzing over 597 routes, 23 carriers, six loading and unloading areas, the configurations of highway equipment, and 12 ships that haul these products. We also conduct HSE-specific inspections at nine marine terminals

based on international standards such as the CDI-t<sup>12</sup> (Chemical Distribution Institute)<sup>13</sup> to identify risks and establish preventive control barriers. At our own terminals, through responsible performance and risk analysis in operations, we maintained the SEMPRE Stage 3 certification, implementing the actions for improvement identified with the goal of achieving Stage 4 certification in 2018.

All hiring of import, export, coastal shipping, and inland shipping vessels follows international safe-

ty standards based on the vetting criteria and recommendations determined by the Oil Companies International Marine Forum (OCIMF). In 2017, we conducted 650 vetting assessments for 355 trips, hauling 4.6MM tons of liquids and gases.

<sup>11</sup> Formal and thorough examination (usually conducted by a specialist) prior to granting approval or release.

<sup>12</sup> <https://www.cdit.nl/psp/cdit.home>

<sup>13</sup> <http://cdi.org.uk/>



We maintain partnerships with major risk managers in Brazil and we hire most of our road freight of non-hazardous products (resins) with electronic trackers. For hazardous products, 100% of the freight must be tracked and transported by a fully-owned fleet and drivers with a direct employment relationship with the carriers. Specifically in the case of propylene, in addition to tracking 100% of the freight, telemetry is required on board the vehicles.

Our Company holds periodic meetings with our service providers, ensuring that everyone is up-to-date with our internal Health, Safety, and Environment processes, and conduct annual audits at carrier headquarters, which include assessment and planning of the corrective actions required for those with a below-expected result in the Supplier Performance Index (IDF). In addition, Braskem has a contract with Suatrans<sup>14</sup>, a leader in response to chemical and environmental road emergencies in Brazil. The areas responsible for managing

Braskem's logistics activities work pursuant to relevant programs that promote road safety, include:

- **Olho Vivo na Estrada:** created by ABIQUIM in partnership with ABICLOR, the purpose of this program is to prevent, unsafe behavior when transporting hazardous products. Olho Vivo na Estrada is part of a risk management system and aims to fully eliminate road accidents involving chemicals.
- **Transportadora da Vida:** program of the Trade Union of Carrier and Logistics Companies (SETCERGS), which certifies cargo transport companies that carry out actions with a greater emphasis on safety.
- **Na-Mão-Certa:** program developed by OSCIP Childhood Brazil, which works to influence the agenda for protecting children and adolescents in the country, whether in partnership with companies, civil society, or the government. The role of the organization is to ensure that aspects related to sexual abuse and exploitation guide public and private policies, offering information, solutions, and strategies for different sectors of society.

<sup>14</sup> www.suatrans.com



Braskem continues to find creative ways to reduce risks that include the use of closed circuits for transporting resins, sharing vehicles with other shippers, as well as promoting more sustainable modes of transportation. Our Company has been working on developing logistics alternatives, such as coastal shipping and rail transportation modes still underdeveloped in the country, especially when compared to Mexico and the United States to prevent our businesses from being affected by Brazil's infrastructure bottlenecks.

Today, Braskem works on different projects that align with "Logistics 2020," which include automating various processes, increasing storage efficiency and optimizing the logistics network of the resins business, and the "Athena," which focuses on restructuring chemical and vinyl logistics processes, progressing with increased efficiency, new logistics models, optimizing and maximizing assets, automating the logistics chain, and more.

<sup>16</sup> Navigation between ports in the same country or at small distances on coastal waters.



### Third-Party Work Conditions

Braskem has renewed the logistics areas used for third-party activities in its units<sup>16</sup>, including women's locker room, the pantry with a redesigned layout, new furniture, air conditioning, and window tints. These enhancements provide a visual, acoustic, and thermal comfort, eliminating occupational hazards, and ensuring greater motivation, well-being, and productivity for 14 fixed contractors and about 50 temporary workers who circulate daily through these spaces.

### Decent and socially responsible work

Braskem support Childhood Brasil in fighting child sexual abuse and exploitation in logistics operations. In 2017, we were recognized for the second consecutive year by actions carried out in the Na Mão Certa Program, a Childhood Brasil initiative that, in partnership with Braskem, coordinated the joining of ABIQUIM to the program. Our Company has raised awareness of 778 truck drivers, 25 carriers, and 18 factories, fulfilling our strategy of contributing to building a solidarity protection network on the roads. In 2018, we will include the ports in this goal.

It is also important to improve the truck driver's working conditions and the quality of the stopping and resting areas, as well as reduce waiting time, initiatives that will result in the avoidance of situations involving prostitution and the use of alcohol. In 2017, Braskem launched a portal for scheduling road shipments, influenced the improvement of the infrastructure of a Logistics Hub and two warehouses, and approved 12% of the fuel stations inspected by the risk management company Buonny during the year. These advances also improved the logistics operations, as well as safety and comfort for truck drivers.



## Clients

At Braskem, we value our Clients and seek to build unique and effective solutions together, to create value and foster the development of our entire chain. We work in an integrated manner, always seeking to combine our innovation initiatives with the development of solutions in partnership with our Clients. All Members are encouraged to recognize those needs and make responsible decisions, creating a dynamic and engaging environment that provides a sense of belonging and pride.

### Among our main initiatives are:

**PICPlast:** In 2017, the Braskem investment surpassed BRL 30 million with the Brazilian Plastic Industry Association (ABIPLAST). The Plastic Chain Incentive Plan (PICPlast) has three fronts: promoting the export of manufactured products, fostering competitiveness and industry innovation, and promoting the advantages of plastic. One of the highlights for 2017 was PlastCoLab, an open and free maker space set up in the city of São Paulo for two weeks that offered experiences related to innovation, creativity, and knowl-

edge, always associated with the versatility and transformation potential of plastic. Over the three years Braskem has been partnered with the Brazilian Plastic Industry Association (ABIPLAST), more than a 1,000 people participated in training and market development initiatives, BRL 160 million was invested in the export incentive program, and over eight million people were impacted by the actions promoted by the advantages of plastic.

**Maxio® Seal:** this seal aligns with Braskem's innovation pillar and allows us to identify and develop successful resins, such as lower energy consumption, greater productivity in the production process, and reduced weight of the final product, resulting in reduced production costs, environmental impacts, and productivity increased 15%. One of the highlights of 2017 was the PG480 resin, available to the raffia market. This resin was designed to function in very high speed equipment, guaranteeing greater stability during production and an increase in raffia manufacturing capacity.

**Visio Program:** through this initiative, we encourage sharing of knowledge and experiences with clients to develop exclusive projects and solutions that meet specific demands. VI-

sion Program promotes competitiveness, searches for new business, and requires management to focus on business improvement. In 2017, the program partnered with 55 Clients, on over 80 initiatives implemented throughout the year.



### GOLD CLASS

Today, Braskem is among the 3% in the chemical industry to preserve the gold class assessment by supplying to clients on the Ecovadis evaluation platform. The goal of this platform is to develop a corporate social responsibility through its influence in the global supply chains.



To learn more about the platform, visit [www.ecovadis.com/us/](http://www.ecovadis.com/us/)



### CIRCULAR ECONOMY

In order to reaffirm our commitment to developing sustainable solutions in the plastic chain, we created the Wecycle Recycling & Platform area in 2017. This new platform, part of the Polyolefins Unit in South America and Europe, is responsible for the development of products with post-consumer recycled content, process qualification, and technical reliability, focusing on creating value for post-consumer waste and on the recycling chain, strengthening partnerships with clients, recyclers, and brand owners. With this, we want to strengthen our strategic position and leverage initiatives, businesses, and sustainable solutions related to the circular economy of plastic.



### FIRST ON THE MARKET

In 2017, we launched the first polypropylene and polyethylene resins made from recycled post-consumer waste content, with production volumes that can reach 50 tons per month. WCL H 1003 BBM polypropylene is produced from the annual recycling of nearly 120,000 big bags and WCL L004 SCV polyethylene is produced after the annual recycling of 2.4 million used and discarded bags in our Distribution Centers. WCL R703 PCW is produced from domestic post-consumer waste from blown polyethylene packages.



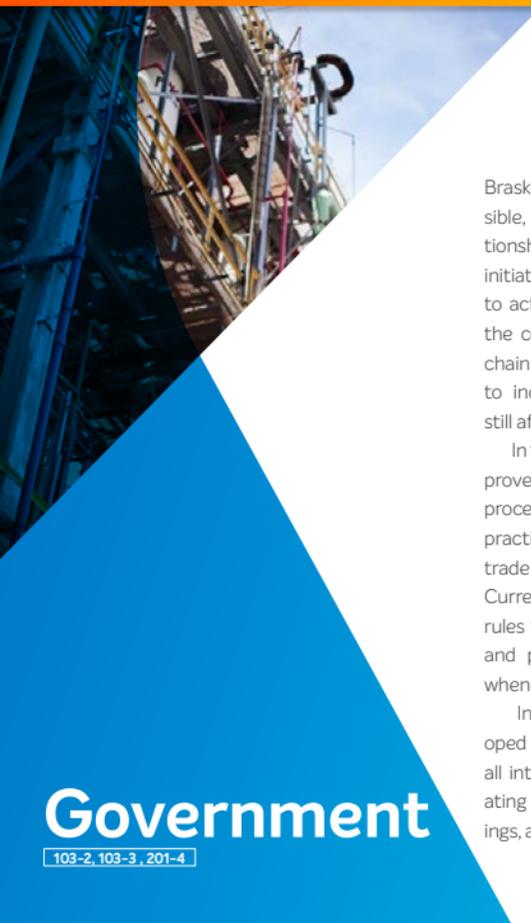
### VALUING WASTE

Braskem partnered with the GPA Group which recycles approximately 60 tons of plastic per year to produce new packaging of *Qualitá* stain remover, an exclusive brand marketed in Extra and Pão de Açúcar supermarket chains. This initiative, is part of the Wecycle platform, which uses materials discarded at the stations installed at Pão de Açúcar stores, which are donated to partner cooperatives. When the process begins the plastic is sent to a recycler that makes the resin, composed of 70% recycled material and 30% virgin polyethylene. The resin is then sold to a company that processes plastic, which will produce the product packaging and fill approximately ten thousand units of product per month.



### PLASTIC ON THE MOVE

Braskem's partnership with the Brazilian bicycle manufacturer Muzzicycles, enables the use of post-consumer Wecycle resin, from cooperatives supported by the Platform, in Muzzi bicycle frames, an innovative technology developed in Brazil by Juan Muzzi. Currently, Muzzicycles has the capacity to produce 132,000 bicycle frames a year, which results in recycling of 150 tons of plastic waste. Each frame contains about three pounds of plastic, 30% of which is recycled. The plastic frames are resistance and absorptive characteristics of polyethylene and have a lifetime warranty.



Braskem continues to maintain responsible, honest, and transparency in relationships that permeate activities and initiatives with all stakeholders. We seek to actively promote dialogue to defend the competitiveness of our production chain and overcome challenges related to industrial policy and infrastructure still affecting the growth of Brazil.

In the last two years, Braskem has improved its governance and compliance processes, which has reinforced several practices in our operational model with trade associations and the Government. Currently, we have clear and widespread rules for all Members regarding controls and protocols that must be followed whenever we deal with stakeholders.

In addition, our company has developed a tool on the intranet that reports all interactions with public agents, creating a base for email exchanges, meetings, and participants and also developed

a new guideline with clear rules and procedures for any type of relationship with the government. This guideline came into effect in early 2018.

One of the issues that are part of our discussion agenda is *Reintegra*, a government program that aims to return to certain segments of exporters a percentage of the taxes levied on the production chain of goods sold abroad. In 2017, this percentage went from 0.1% to 2%, and for the year 2018, the 2% rate was maintained.

Tax incentives on ICMS (VAT) granted by the State of Alagoas through the Program of Integrated Development of the State (Prodesin), with the purpose of promoting the implementation and expansion of industries in Alagoas, changed its rules in 2016. The recovery of the market in 2017 allowed the incentive, which is considered as a reducer of taxes on sales, to be optimized.

BRL thousands	2015	2016	2017
Total tax incentives/credits*	173.9	875	274.4
- PRODESIN - ICMS	71.6	78.8	95.7
- REINTEGRA	102.3	8.7	178.7
Grants for investments, research, and development, and other relevant types of concessions**	-	-	427.7
FINEP	-	-	-
FINEP Award	-	-	-
ECAs (financial aid from credit and export agencies)***	-	-	427.7

\* Tax incentives/credits: restitution of federal taxes by the Reintegra program and ICMS tax incentives, granted by the Government of Alagoas, through the Integrated Development Program of the State of Alagoas - Prodesin.

\*\* Grants for investments, research, and development: awards and financing by FINEP for innovation projects.

\*\*\* Financial assistance from ECAs [and export and credit agencies]: risk insurance operation with Nippon Export and Investment Insurance (NEXI - Japanese agency) for investment in maintenance and in the butadiene project.

# Government

# HEALTH, SAFETY, AND ENVIRONMENT

## POSITIVE TRANSFORMATIONS

We believe that our commitment to sustainable development is essential for growth and business sustainability. That's why we are challenged every day to make our operations more efficient, with less and less impact on people and the environment.



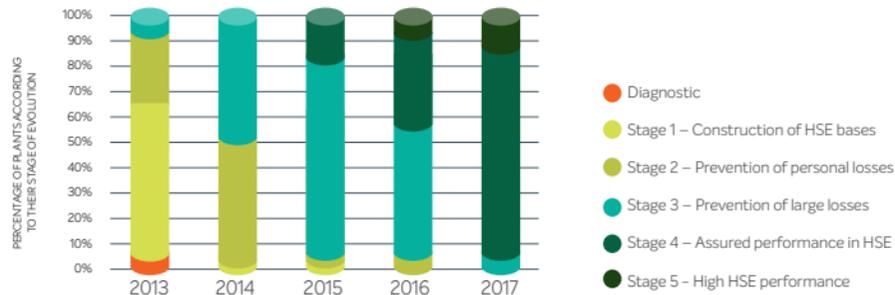


Our Company focuses on the well-being of our Members, communities around our plants, and the environment to generating positive, concrete solutions. Through innovation and work that is geared toward humans, more opportunities will arise in the future. In 2013, Braskem developed SEMPRE, our Integrated Health, Safety, and Environment System that helps reinforce a risk prevention culture based on discipline and respect for established safety processes and procedures.

SEMPRE takes into account the unit's profile and its main risks when setting annual goals for progression. In 2017, one hundred percent of planned audits were carried out, and 83% of the industrial units reached Stage 4 in SEMPRE Assured Performance HSE, a massive increase from 40% in 2016.

All audits were performed in an integrated manner, including requirements of the Management System, Programa Atuação Responsável® (Responsible Action Program), and Management of Process Safety Barriers. The units were submitted to a safety culture evaluation to strengthen the Preventive Culture established by Braskem. [103-2, 103-3, 413-2](#)

### EVOLUTION IN THE IMPLEMENTATION OF SEMPRE



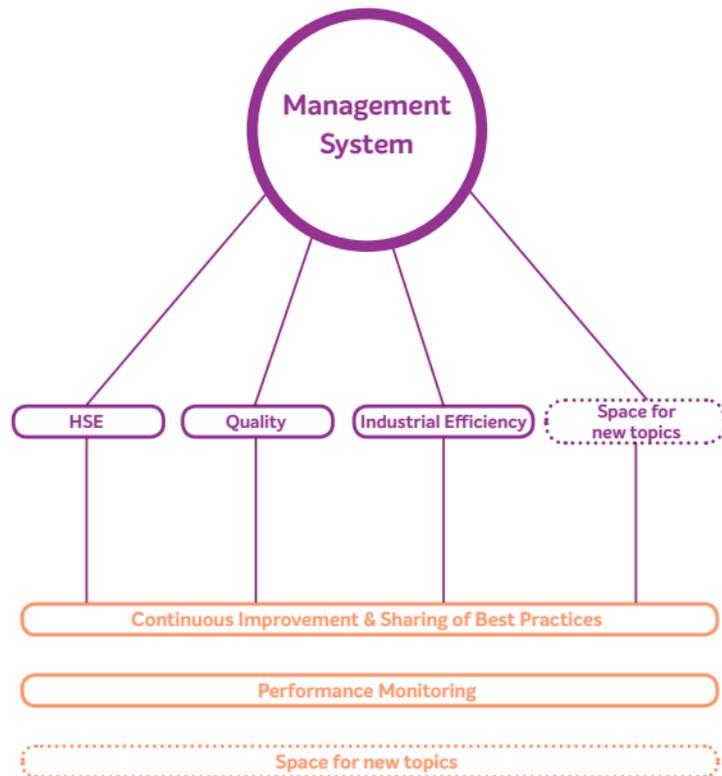
Note: In 2018, the focus is on implementing the Intellius Integrated Management System.

## GLOBAL, SIMPLIFIED, AND ALIGNED <sup>[103-2]</sup>

Our Company is focused on globalization and the sustainability of our business performance, integrating our internal standards, incorporating and improving the requirements of SEMPRES, of Quality, and Industrial Excellence into a single management system: Intelius.

The Intelius, is a management model composed of a set of guidelines and international best practices, aligned with our strategy of sustainability and continuous improvement. Intelius will act as a standard documentation, quality, productivity, health, safety, and environment model for all Braskem's production units worldwide. In addition, it will be able to incorporate new elements according to the needs and characteristics of the business.

Currently, the Intelius HSE pillar has a total of 53 mandatory global standards, and contains organizational dynamics that allow the modular incorporation of future needs, and facilitates the addition of new work topics whenever necessary.



Like SEMPRES, the success of this initiative is directly associated with our operators. We believe in shared responsibility, so all teams in our production unit receive constant training and clear information regarding the goals through daily meetings with management. In this way, everyone becomes a protagonist, developing solutions for process safety and managing our ecoindicators.

## Strengthening practices <sup>[103-3]</sup>

Braskem has been part of the ISE portfolio for the 13th consecutive time, (B3 Corporate Sustainability Index), which recognizes Brazil's best publicly traded companies in management of sustainable development. Our permanence in the index reflects our commitment to best practices in HSE, Corporate Governance, Social Responsibility, Economic and Financial Management, and Environmental Preservation. The new ISE portfolio is formed by 38 shares from 34 companies representing 15 sectors and totaling BRL 1.31 trillion in market cap.

## Investments and gains in environmental protection 103-2

Our business strategy intends to improve planning in all environmental protection processes relating to risk of accidents involving processes or products. These plans are adjusted according to the goals of the period, migrating from one dimension to another according to the main needs detected maintaining relative balance in order to generate positive impacts in all HSE aspects.

In 2017, the amount invested in these initiatives were reduced compared to 2016, mainly due

to reduced provision for environmental damages. Investments vary according to the needs of the Company's plants and units, according to maintenance schedules, recertification, business strategy, and other reasons. In 2016, improved quality of the diagnoses lead to a longer period of planning remediation processes, which increased expenditures to treat contaminated areas. After adjustments in budget, the amounts returned to levels of operating costs for remediation of liabilities.

Type of expense (BRL millions)	2015	2016	2017	
Investments in HSE	Workplace safety	65.6	51.4	75
	Process safety	13.0	25.9	87.6
	Health	4.7	2.8	3.9
	Environment	31.1	23.8	13.1
	Total	114.4	103.9	112.1
Expenditure for treatment of effluents and waste	Treatment of liquid effluents	50.5	51.1	52.6
	Waste Management	42.7	55.3	57.2
	Total	93.2	106.4	109.8

Type of expense (BRL millions)	2015	2016	2017
Emission management	8.1	7.9	8.8
Environmental licenses	1.1	1.0	1.0
Depreciation	46.0	46.0	46.0
Provision for recovery of environmental damages (environmental liabilities)	65.8	182.6	102.5
Other environmental management costs	66.6	59.7	48.9

### Highlights in bioeconomics

Our Company was ranked 36th among the "50 Hottest Companies in the Advanced Bioeconomy 2017," the largest news website on biofuels. The ranking is formed based on the evaluation from international experts in the sector, and votes from subscribers. In 2017, voters through social networks elected the candidates through social media.



Our management model for Health, Safety, and Environmental issues involve monitoring savings and costs through the improvement projects developed by the area. The avoided costs recorded are basically the processes that do not need to be paid, which varies a lot year after year. These gains remained at the same levels as in 2016, but it is important to note that the reduction in gains observed from GHG initiatives occurred because most of the amounts are already included in energy efficiency projects and initiatives.

It should be noted that our energy consumption is predominantly thermoelectric, so projects involving improvements in energy efficiency also positively impact reduction of emissions and avoided costs. In 2017, this avoided cost was 61% higher than in the same period in 2016.

In total, this work resulted in gains of BRL 247.5 million<sup>16</sup> in operations in Brazil, the United States, Germany, and now Mexico. **103-3**

<sup>16</sup> Avoided costs through management of health, safety, and environment.

## AVOIDED COSTS – MANAGEMENT OF HEALTH, SAFETY, AND ENVIRONMENT

**103-3**

Dimension (BRL millions)		2015	2016	2017
Safety	Workplace safety	0.6	-3.4	2.5
	Process Safety	-270	171	4.6
Health	Occupational Health	19.0	23.3	7.1
	Waste Generation	13.5	6.7	2.4
	Water consumption	7.2	4.6	8.8
Environment	Effluent Generation	6.2	2.1	4.4
	Energy consumption	116.8	134.9	217.7
	GHG Emissions	0.0	67.0	0.6
HSE	Common Impact	0.0	0.0	0.0
	Management	0.5	0.1	0.0
<b>TOTAL</b>		<b>136.8</b>	<b>252.4</b>	<b>247.5</b>

## Occupational Health and Safety 103-2, 103-3, 403-2<sup>17</sup>

In 2017, Braskem continued to strengthen its global alignment and standardized identification and evaluation of occupational illness, and as a result, there was no record of a new case or grievance of occupational disease this year.

In addition, Braskem developed a safety prevention plan for future occurrences especially serious accidents that may lead to death, which occurred in 2016. We also conducted a global awareness campaign so our Members are alert and focused.

In 2017, the frequency of accidents with and without lost time (CAF + SAF), comprised of Members and Third Parties per million hours worked, increased 27% compared with 2016, due to contractor performance and routine tasks. The Frequency Rate of Accidents with Lost Time, comprised of Members and Partners per million hours worked, increased 36%. The Severity Rate of Accidents with Lost Time dropped considerably (85%). The decrease in the severity rate is significant and reflects the continued emphasis on operational discipline for high risk activities or activities that are life critical.

### NUMBER OF ACCIDENTS X 1MM/MHW

	2013	2014	2015	2016	2017
Accident frequency rate (SAF + CAF)	1.04	0.97	0.68	0.8	1.02
Accident frequency rate (CAF)	0.39	0.14	0.26	0.24	0.33
Severity rate	64.7	12.53	43.32	164.17	24.44
Number of fatal accidents	0	0	0	1	0

One of the highlights of 2017 was the prevention of incidents during loading and unloading of hazardous materials, based on the monitoring of performance in 2016 (fatality) and critical analysis. A global standard was developed for loading and unloading hazardous materials. In addition, several strategic HSE initiatives were developed

in 2017 to include the Intelius global management system Braskem and Human Reliability. Intelius will establish a global platform for Braskem's governance and HSE requirements. The processes were compared internally and externally in 2017 as part of the development of the Company's human reliability strategy.

<sup>17</sup> Absenteeism rate: in 2017, the concept and calculation of this indicator were revised, and an interface was created to capture the indicator via Dashboard. In 2018, we will begin the capture, and the target will only be defined after the capture has evolved and the results have been analyzed.

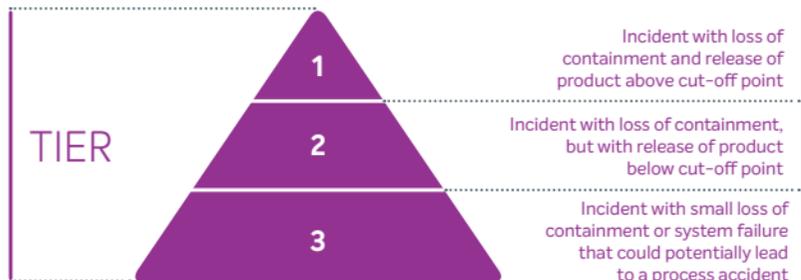




## Process Safety

[413-2, 103-2, 103-3](#)

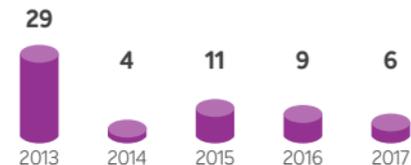
Braskem's commitment to our teams and leadership were a prominent factor in the reduction of TIER 1 and TIER 2 events (including process accidents). This decrease demonstrates a visible and continuous growth of our actions toward previous assessments in order to manage and mitigate potential risks, and awareness of all concerning the importance of safety procedures to ensure increasingly efficient processes.



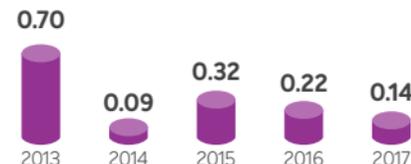
Braskem sets global and per unit goals for the accident rates classified in TIER 1 and TIER 2, that are monitored monthly and are redefined each year according to Company and market performance. In 2017, the global goal for TIER 1 frequency rate was 0.17, and 0.12 in 2018, and the global TIER 2 goal in 2017 was 0.80, and 0.70 in 2018. To calculate unit goals, each location adopts the same value as the TIER 1 global goal, and calculates its TIER 2 goal by considering the global goal value and its history.

In 2017, we recorded six TIER 1 events (three less than the previous year), with a rate of 0.14 per million hours worked (36% less than 2016) – a number compatible with the best benchmarks in process safety form companies in the American chemicals sector (0.34 as the average benchmark of American companies in 2016).

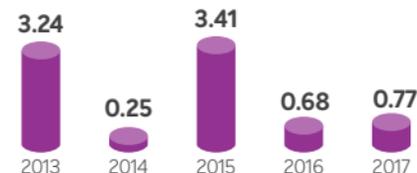
### TIER 1 – NUMBER OF ACCIDENTS



### TIER 1 – RATE OF ACCIDENTS (NUMBER OF ACCIDENTS X 1MM/MHW)

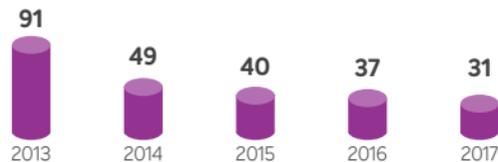


### TIER 1 – SEVERITY RATE

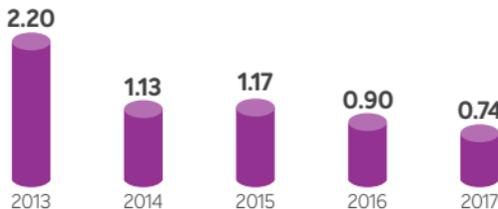


Tier 2 events also follow a downward trend, a decrease of 37 records in 2016 to 31 in 2017. The accident rate per million hours worked dropped from 0.90 to 0.74, down 18%.

### TIER 2 - NUMBER OF ACCIDENTS



### TIER 2 - RATE OF ACCIDENTS (NUMBER OF ACCIDENTS X 1MM/MHW)



Throughout the years, there has been an increase of Tier 3 events, which are considered small events or incidents. This increase is a result of improvements in the registration system, a stronger process safety culture, and the Members' commitment to reporting any type of diversion that causes a loss of primary containment, seeking to reduce the number of small events through the critical analysis of small occurrences.

### Risk Rating

In 2017, Braskem continued to advance our Risk Rating results at the audited units, to improve of our procedures and the safety of our plants and Members. All of the 14 plants that were audited by the insurance company, all increased their scores compared to 2016. Today, all plants meet the international standard at the "Standard" level, with half of them at "Above Standard." It is worth noting that Braskem does not have a goal for this indicator.

### PLANTS THAT HAVE ACHIEVED THE INTERNATIONAL STANDARDS "STANDARDS" AND "ABOVE STANDARD" - RISK RATING



### New risk matrix

In 2016, our company provided a thorough review of its risk matrix, with global alignment in all its business units worldwide, and based on a global benchmark in risk acceptability criteria. The new matrix was put into practice in 2017, and was Braskem's first global project, which required all Braskem operations to review their greatest risks in a more rigid, structured manner, associated with the new global risk matrix, allowing for greater integration with principles of health, safety, and the environment. This new matrix is also accompanied by a new risk assessment management system, which continuously monitors whether all risks are being duly mitigated. Today, the matrix reflects several intangible, reputational risks that may have an impact on Braskem's image before its Clients work that positions Braskem as a global benchmark in the industry.

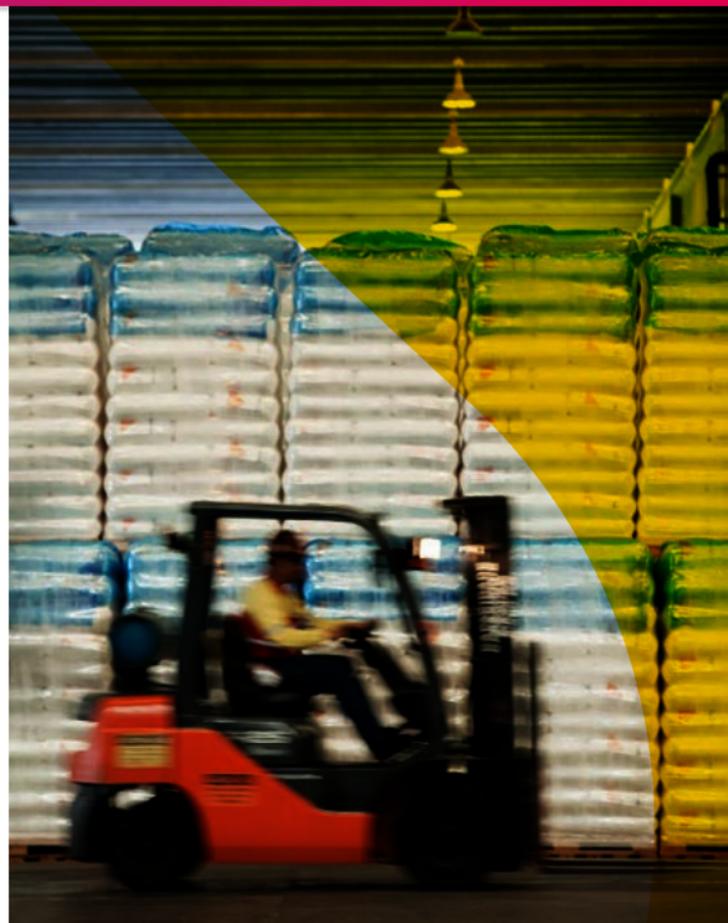
## Product Safety [103-2, 103-3, 416-1, 416-2, 417-1, 417-2](#)

In 2017, Braskem conducted a new international benchmark process to reinforce the structure of resources and systems in the area. As a result, we have expanded our team's dedication to issues such as; regulation of application and the review of all new FISPQ<sup>18</sup> (Emergency Forms) for the chemical inventory that we readjusted in Brazil. In 2017, the products evaluated regarded health and safety and focused on inputs used in dyes, food, and healthcare, and there were no cases of non-compliance with regulations that resulted in a fine or penalty.

<sup>18</sup> In the United States, the Company uses the Material Safety Data Sheet (MSDS) and Safety Data Sheet (SDS), as required by the Occupational Safety and Health Administration (OSHA) and the relevant EU directive (REACH).

In addition, Braskem developed two new systems based in the United States: an online platform allowing the visualization of raw materials in real time, and an emergency communication channel associated with global exports. These systems store information about our products and works as a primary service for our clients globally. In 2017, as in previous years, there were no audit cases reported related to product, information services, and labeling non-compliance at our plants around the world.

**In 2017 we conducted a new international benchmark process in order to further reinforce the structure of resources in the enforcement and revision of regulations.**



## Water Efficiency

103-2, 103-3, 303-1, 303-3, 306-1

With the water supply crisis progressing in Brazil, water has become a scarce resource, encouraging firms to conserve and become more responsible. Considering this scenario, Braskem has been investing heavily in its production units throughout the country. Since 2002, we have invested BRL 280 million in water efficiency and effluents treatment projects.

As a result of this initiative, Braskem has partnered with Sabesp and developed the Aquapolo Project, at ABC Paulista, a project which broadened Braskem's water reuse index to 97% in the region. In addition, Braskem started operations at the Mexico Complex, with a reuse system that reused 17% of the water consumed at the Complex in 2017.

### Twice on the A List

For the first time, Braskem is listed on CDP WATER's "A List," which recognizes the best publicly traded companies in the world, regarding management of the use of the natural resource water. Braskem was the only Brazilian company to obtain the highest score in the Climate (for the second consecutive time) and Water (this for the first time) classifications, an achievement that positions us among the 25 companies to get an A in both rankings, out of 2,452 companies evaluated. Today, we are part of the 1% of companies in the world that joined the "A-List" of CDP Climate and CDP Water in 2017.

Throughout the world, industries consume about 20% of the water supply, which is why we work continuously to improve our processes with innovation and sustainable projects. Over the last two years, we have studied the risk of water scarcity at eight watersheds, four of which were completed in 2016, and the other four in 2017. These studies allowed us to map out operations

in areas with potential risk of water shortage today and until the year 2040. This project makes it possible to plan the best way to address risks and identify opportunities to invest in risk areas to benefit to our value chain (Clients and Suppliers) to search for alternative supply sources. In 2017, the percentage of water reuse exceeded the target of 25% set for 2020 and, for

the first time in history, we are part of CDP WATER's "A List," which recognizes the best publicly traded companies in the world regarding management of the use of the natural resource water.



For more information, go to [www.cdp.net](http://www.cdp.net), in Search Responses.

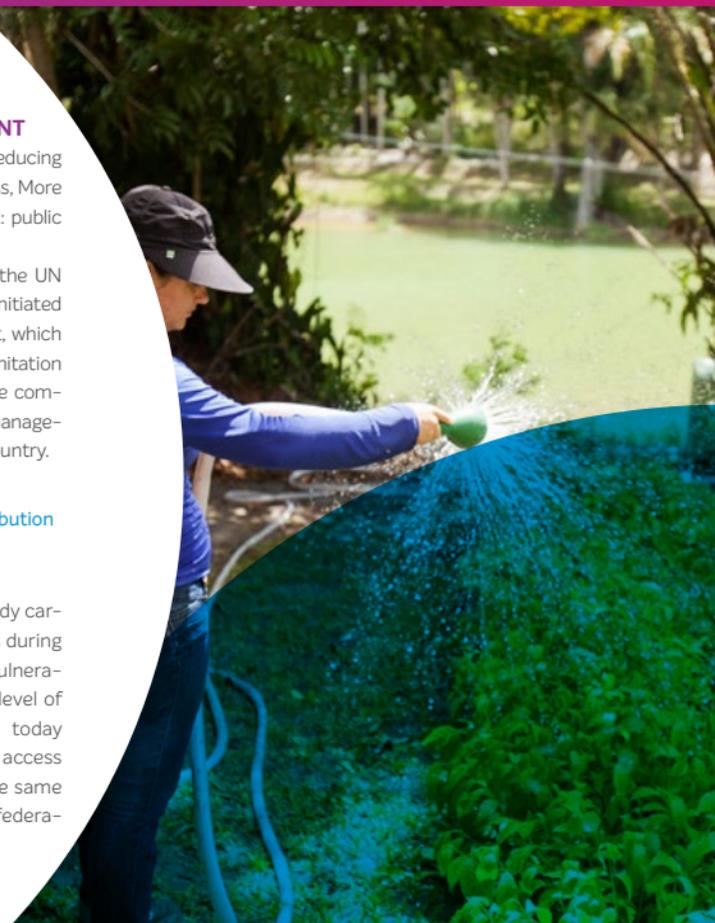
### SMALLER LOSS, MORE WATER MOVEMENT

In order to encourage concrete actions toward reducing waste in the distribution system, the “Smaller Loss, More Water” Movement structured two areas of work: public policies and engagement.

This water management project aligns with the UN Sustainable Development Goals (SDG 6 and 17), initiated by the Brazilian Network of the Global Compact, which has Braskem and SANASA (Water Supply and Sanitation Company in Campinas) as leaders and seeks the commitment of public agents to improve the water management and the urban distribution system in the country.

The loss of **treated water** during distribution reaches an average index of **38%**.

In 2017, we promoted the development of a study carried out by Instituto Trata Brasil on “Water loss during distribution as an aggravating factor to the vulnerability of watersheds.” The study highlights the level of physical water losses in distribution systems today and in the future and indicate a risk to water access for all users of the watersheds. Published in the same year, the study was disclosed in the industry federations FIEB, FIESP, and FIRJAN.

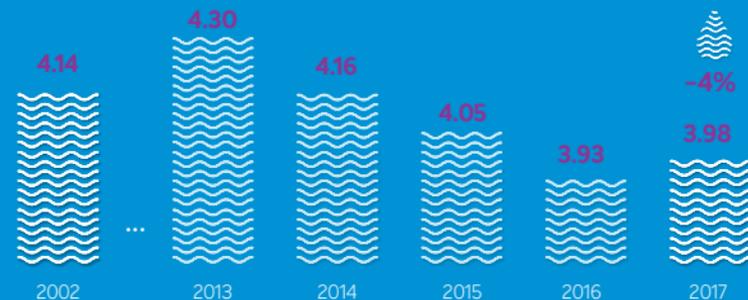


### CONSUMPTION

In 2017, water consumption (3.98 m<sup>3</sup>/t) increased by 1.4% over the previous period, but still 2.5% below the goal set for the year. This increase was due to Braskem Idesa being included in the Braskem eco-indicators, and the quality of the water captured for use in that unit causes greater consumption. Water quality impacts the number of times it may be recirculated in cooling processes. The purer the water

used, the more cycles can be performed and the less water replacement will be required. In addition, several factors contributed to improving the Company’s performance in water consumption, such as adjustments and improvements in cooling tower cycles, implementation of measures to reduce consumption due to the water crisis, minimization of losses, and elimination of leaks.

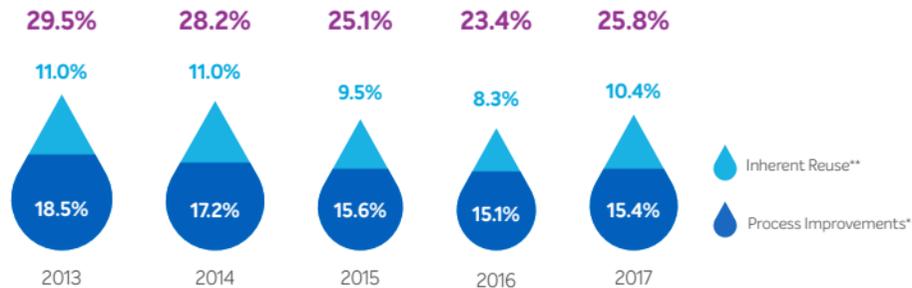
WATER CONSUMPTION – m<sup>3</sup>/t



## REUSE

Among the main initiatives of 2017, improving procedures for water reuse from production units remained a crucial focus for Braskem. Today, Braskem has a series of projects and goals in place linked to reducing water consumption, as well as performing constant evaluations to avoid any impacts from a possible water shortage. In 2017, a total of 25.8% of all water consumed in our operations came from reuse processes, 15.4% of which resulted from process improvement (investment) and 10.4% from original plant operation (born with the plant design).

### WATER REUSE



\*Reuse in Process Improvements is all that comes from modifications at current units, including or improving processes.

\*\* Inherent reuse is everything that was born with the industrial unit and is part of the original plant process.



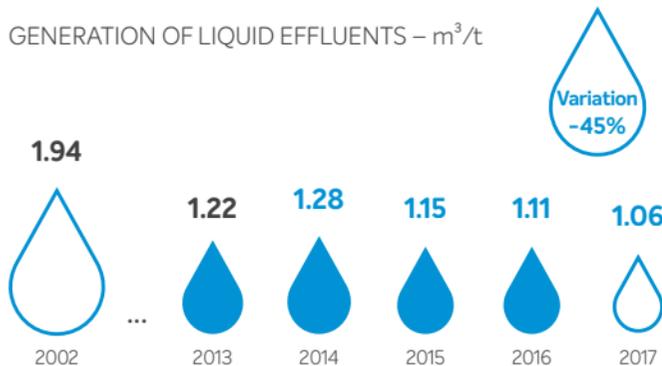


### EFFLUENTS

For the third consecutive year, Braskem has hit its best historical result demonstrated in actions taken to improve the Company's water efficiency. Our eco-efficiency in generating liquid effluents (1.06 m<sup>3</sup>/t) improved by 4.2% compared with 2016, and was 79% better than the goal for 2017. Improvements in cooling tower concentration cycles, and scheduled shutdowns<sup>19</sup> for maintenance and cleaning, resulted in low rainfall rates in some regions and reduced blowdown.

<sup>19</sup> Blowdown is the water intentionally wasted to avoid the concentration of impurities during the continuous evaporation.

#### GENERATION OF LIQUID EFFLUENTS – m<sup>3</sup>/t



### More innovation. Less waste.

Since September 2017, Braskem adopted a new technology to our operations that allow us to reduce water consumption by thousands of liters per month. The company, "Piipee", developed a new technology that uses a biodegradable additive, which removes odor and color from urine, avoiding the need to flush the toilet, and saves up to 75% of water in toilets bowls. On average, 7 to 20 liters of drinking water are wasted when a toilet is flushed. "Piipee", estimates that this technology has the potential to save over 60 million liters of water and over BRL 722,000 per year in all of Braskem's plants in Brazil. In 2016, the project was part of our entrepreneur acceleration program – Braskem Labs Scale.

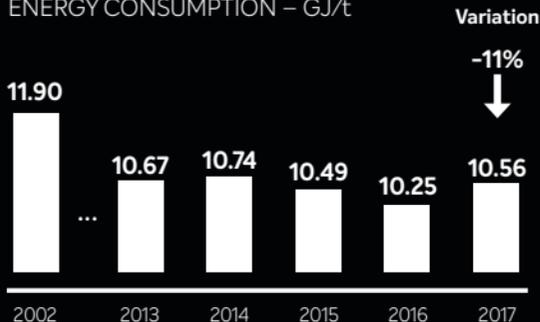
## Energy Efficiency

103-2, 103-3, 302-1, 302-3, 302-4

The same way that we seek to reduce our impacts on water consumption, we work every day in search for innovative and sustainable solutions (from an environmental and economic standpoint) that help improve efficiency and reduce the energy consumption of our production units. In 2017, our energy consumption (10.56 GJ/t) increased 3.0% compared with 2016, but was 2.4% better than the goal for 2017. The increase in the indicator was due to Braskem Idesa (Mexico) being included in our ecoindicators, and intensity of energy consumption at the new plant is higher than the Braskem average.

Among the main initiatives in Brazil toward reducing energy consumption in the units, the initiative that presented the most gains was implemented in PE 4 (Rio Grande do Sul), with gains of BRL 68.8 million, which reduced decompositions in tubular technology high-pressure polyethylene plants. In addition, UNIB 2 (Rio Grande do Sul) reduced its energy consumption by 938,591 GJ, through furnace optimization.

ENERGY CONSUMPTION – GJ/t



### Initiatives toward process improvement

### Economic gain (BRL millions)

Improvements in production processes (except furnaces) and sales of electricity	104.3
Furnace optimization	71.2
Reduction in steam consumption	35.3
Boiler and turbine improvements	9.6
<b>TOTAL</b>	<b>220.4</b>





### ENERGY MATRIX

In recent years, Braskem has seen an increase in the share of natural gas in our energy matrix due to the start and stabilization of Braskem Idesa operations, a major consumer of this fuel.

In 2017, we saw a decrease in the share of other external fuels in the energy matrix, also influenced by the increase in consumption of natural gas at Brazilian units due to market opportunities.

### PERCENTAGE OF CONSUMPTION BY TYPE OF ENERGY IN TERMS OF TOTAL CONSUMPTION

	2013	2014	2015	2016	2017
Electrical	9.9%	10.2%	9.0%	9.0%	9.9%
Natural gas	8.9%	13.0%	16.0%	20.0%	22.4%
Other external fuels (mainly oil and coal)	4.8%	5.2%	5.5%	6.0%	4.7%
Residual internal fuels from the petrochemical process	76.3%	71.6%	68.8%	65.0%	62.9%

The percentage of renewable energy consumption in Braskem's energy matrix is strongly influenced by the operation of the Brazilian electricity system. The increasing operation of thermoelectric plants in Brazil has reduced this indicator.

### PERCENTAGE OF RENEWABLE ENERGY CONSUMPTION IN TERMS OF TOTAL ENERGY CONSUMPTION

	2013	2014	2015	2016	2017
	9.39%	7.17%	8.26%	7.44%	7.60%

## Waste Management 103-2, 103-3, 301-1, 301-2, 306-2

We believe that continuous investment in renewable raw materials and correct management of all waste generated in our production process is essential to the maintenance and sustainable development of our business. With this in mind, we have maximized reuse at all of our industrial plants through a process known as chain return the equivalent to internal recycling, and plan to invest in energy and chemical recycling for the future.

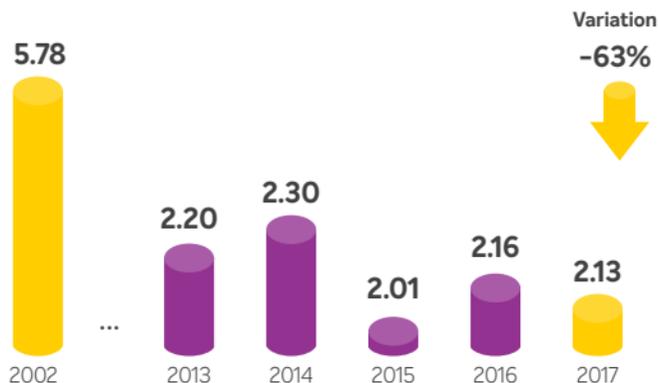
Among the main non-renewable direct materials used by Braskem are naphtha, condensate, ethane, propane, LRH, and sodium chloride. The company also uses ethanol manufactured from sugarcane to produce ethylene from a renewable source, thereby reducing its demand for non-renewable resources.

Our company obtains strict goals for total waste generation (hazard-

ous and non-hazardous waste) that are defined and adjusted annually for a period of five years. In 2017, the generation of solid, liquid and sludge waste (2.13 kg/t) was reduced by 1.4% compared with 2016, and was 4.5%

better than the goal for 2017. This good result was due to plant initiatives toward discovering new ways to reuse waste, changes in treatment, and improvements in cleaning and maintenance processes.

WASTE GENERATION – kg/t



Waste Allocations (t)	2013	2014	2015	2016	2017
Recycling	19,858	7,930	4,628	7,371	6,830
Recovery (including energy)	3,169	5,424	3,975	7,247	6,370
Sanitary/industrial landfill	11,152	21,493	2,804	9,146	8,980
On-site storage	187	748	1,859	1,303	455
Incineration	17,263	20,408	1,713	8,423	8,199
Reuse	290	238	739	482	505
Composting	306	662	274	475	299
Underground waste injection	8,568	7,960	0	1,931	1,756
Other*	9,650	5,000	3,700	17,022	5,258
<b>TOTAL</b>	<b>70,443</b>	<b>69,863</b>	<b>19,692</b>	<b>53,400</b>	<b>38,652</b>

\* Other: autoclave, vacuum thermal demercuration, co-processing of waste in clinker rotary kilns for cement manufacture, soil decontamination by thermal desorption

## Climate Change 103-2, 103-3, 201-2, 305-1, 305-2, 305-3, 305-4, 305-5, 305-6, 305-7

Braskem believes that companies play an essential role in mitigating and adapting to the effects of climate change, therefore we took important steps in reducing our greenhouse gas emission (GHG). 2017 was an important year regarding GHG emissions, due to the use of renewable raw materials initiatives that align with our macro-objectives for sustainable development. According to scientists from the Intergovernmental Panel on Climate Change (IPCC), studies show that a “carbon neutral” society will be needed in this century in order to keep climate change at acceptable levels.

In 2017, the macro goal for climate change evolved 100% compared to the goal set for 2020.

For the 7<sup>th</sup> consecutive year, Braskem’s most recently published GHG emissions inventory was awarded the Gold category in the Brazilian GHG Protocol Program.

For the second consecutive time, we are part of CDP CLIMATE’s “A List”.

For the sixth consecutive time, Braskem was selected to be part of the Efficient Carbon Index (ICO<sub>2</sub>) portfolio of B3 (Brazil).

In line with our strategy to contribute to strengthening this initiative, our company has integrated the Brazilian Network Committee of the Global Compact since 2008, the LEAD group of the Global Compact since 2013, in addition to collaborating with the Green Industry Platform initiatives of UNIDO, and Caring for Climate of the Global Compact. Braskem has actively participated in the Companies for Climate initiative, a business platform created by the Getúlio Vargas Foundation (FGV) Center for Sustainability Studies and, in 2017, we began to coordinate the Technical Group on Energy and Climate of the Brazilian Network of the UN Global Compact. In the same year, we began three pilot studies with GVces, the first to construct our MACC (Marginal Cost Reduction Curve), searching for low carbon investment options, the second in the adaptation plan, testing the methodology of climate risk management during the partnership and engagement stages; and the third for economic valuation of ecosystem services, focusing on water resources.



For more information, go to [www.cdp.net](http://www.cdp.net), in Search Responses.

## CARBON PRICING

To manage risk and identify opportunities regarding carbon pricing, in 2016 we implemented an internal valuation system (shadow price method) that is part of our investment decision-making process. Braskem continued to use this system in operations in Brazil in 2017, which supported the 2018 investment portfolio decision. In the current effectiveness monitoring phase, the results were analyzed, making it possible to verify the adequacy of the initial

value defined for the price of carbon due to the fulfillment of the objective, which is to stimulate new projects with positive impacts, that is, reduced emissions.

After standardizing the investment process in global operations, the system was modified for use in all units in the countries which Braskem operates, the focus is currently on preparing teams in Mexico, USA, and Germany to begin using the methodology utilizing the lessons learned in Brazil.



It is worth mentioning that Braskem also participates in Emission Trading Simulation (SCE) initiatives in Brazil and Mexico, a constructive experiment in the carbon market for debate and generation of knowledge, expanding the contribution of companies to proposals directed toward the government.

## ADAPTING TO CLIMATE CHANGE

After identifying and prioritizing potential climate opportunities and risks in all operations in Brazil, an adaptation plan was created with actions to mitigate or reduce all potential climate risks classified as "high." For international operations in the United States, Germany, and Mexico, the main potential scenarios and impacts were validated, as were the respective mitigation actions for the most relevant risks. There are currently 33 defined actions or actions in progress in Brazil, the main ones are related to water scarcity, floods, impact on energy generation, hurricanes and extratropical cyclones.

Braskem monitors the implementation of this plan by indicators using the Getúlio Vargas Foundation (FGV-SP, Brazil) Sustainability Studies Center methodology as a benchmark. Our company is currently developing a pilot program with FGV focused on the implementation phase of the plan,

## EVENT/CLIMATE IMPACT

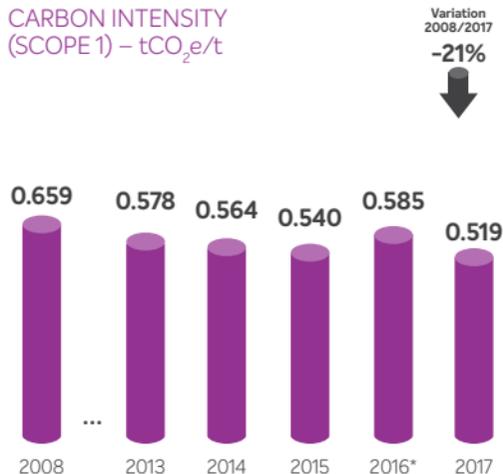


seeking to consolidate the method for developing partnerships and engaging several public and private stakeholders involved in adaptation actions.

### GHG EMISSIONS INVENTORY

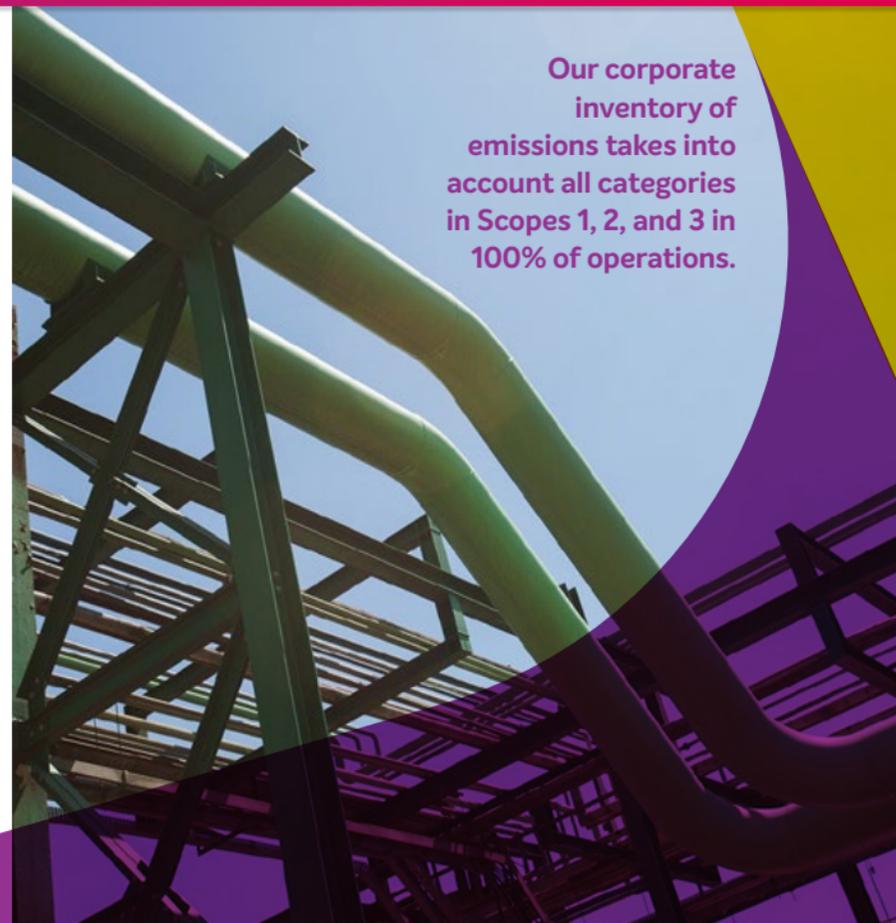
Braskem's corporate GHG emissions inventory considers all categories in Scopes 1, 2, and 3 in 100% of its operations. In 2017, we reduced our Scope 1+2 emission intensity indicator. This reduction was mainly due to initiatives to mitigate emissions, among which energy reduction/recovery projects and operational optimization were highlighted. This is the best Scope 1+2 emissions intensity indicator in the historic series, achieving in advance Braskem's 2020 GHG emissions intensity goal.

### CARBON INTENSITY (SCOPE 1) – tCO<sub>2</sub>e/t



\*Mexico's emissions are included in this amount.

Our corporate  
inventory of  
emissions takes into  
account all categories  
in Scopes 1, 2, and 3 in  
100% of operations.



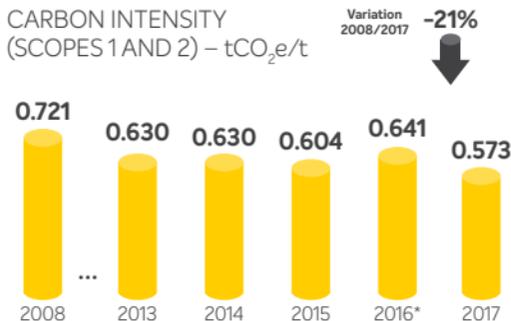
With the start of the new plants in Mexico in 2016, the results of Scope 1 and Scope 2 emissions for 2017 showed a reduction after stabilization of the Mexican operations. Braskem is evaluating the change in the base year and its medium and long-term goals.

Total emissions related to Scope 1<sup>20</sup> was 10,182,558 tCO<sub>2</sub>e. Scope 2<sup>21</sup> emissions were altered due to the approximately 11% increase in the average national CO<sub>2</sub> grid emission factor in 2017, reaching 1,072,713 tCO<sub>2</sub>e. With its electricity suppliers, Braskem seeks statements of the purchase of renewable energy in order to reduce Scope 2 emissions from part of the energy obtained by bilateral contracts.

<sup>20</sup> Direct GHG emissions

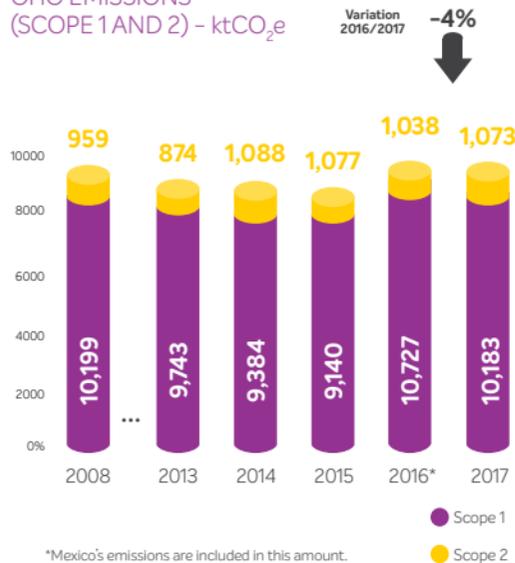
<sup>21</sup> Indirect emissions through the purchase of electricity

### CARBON INTENSITY (SCOPES 1 AND 2) – tCO<sub>2</sub>e/t



\*Mexico's emissions are included in this amount.

### GHG EMISSIONS (SCOPE 1 AND 2) – ktCO<sub>2</sub>e

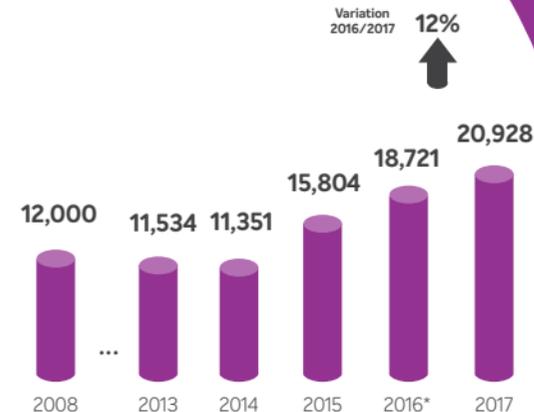


\*Mexico's emissions are included in this amount.

Scope 3<sup>22</sup> emissions were impacted mainly by the broadening of the chemical inputs reported in Category 1 – Goods and Services purchased, and by the expansion of data reported on the transportation of finished product paid by Braskem.

<sup>22</sup> Other indirect GHG emissions

### GHG EMISSIONS (SCOPE 3) – ktCO<sub>2</sub>e



\*Mexico's emissions are included in this amount.

### Initiatives to reduce emissions

Braskem continuously searches for solutions to reduce the impacts that our operations may cause. Among the main initiatives to reduce emissions in 2017, we highlight the development of an action plan to increase the reliability of industrial plants in Duque de Caxias, in order to reduce GHG emissions associated with production shutdowns. The initiatives were related to the reduction and/or recovery of energy and operational optimization (such as reducing loss, modifying operating conditions, and cleaning equipment).

Read the Braskem inventories on the Public Registry database of the Brazilian GHG Protocol Program: [registropublicodeemissoes.com.br](http://registropublicodeemissoes.com.br) (in Portuguese).



### CARBON CREDITS IN THE CORPORATE VEHICLE FLEET

Since 2011, we have been conducting our GHG emissions inventory in Scope 3 (indirect emissions). Over the years, we have significantly advanced actions to engage our chain and identify initiatives to reduce these emissions with the support of

areas such as Procurement, Logistics, Personnel Services, Information Technology, raw material acquisition, and others.

In 2017, we began participating in an initiative to generate carbon credits by replacing gasoline with

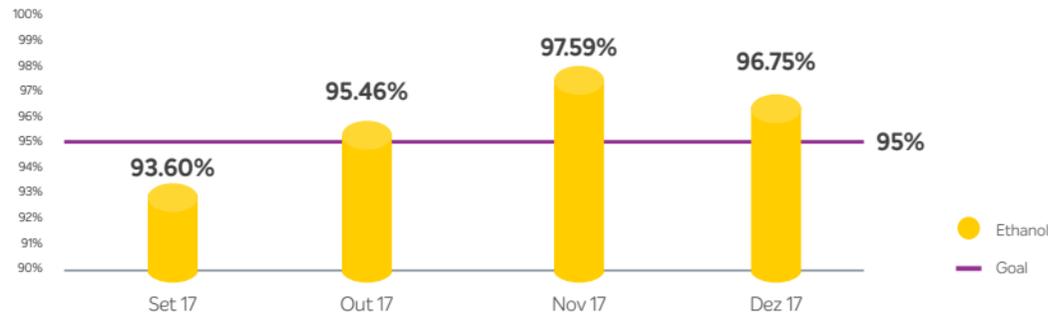
ethanol in our fleet of corporate vehicles. Conducted by the Sustainable Development and Personnel Services team, this action guarantees the generation of carbon credits if the ethanol supply exceeds 95% in volume of the fleet supply mix.

### EMISSIONS IN LOGISTICS

In 2016, the Logistics area of the Polyolefins Business Unit, along with the Sustainable Development area, created a tool enabling practical and rapid measurement of Greenhouse Gas Emissions in the logistics transport of finished products.

In 2017, Braskem continued to monitor emissions from the logistics transport of finished products. The highlight of the year was the implementation of a monthly monitoring system for Greenhouse Gas (GHG) Emission indicators, carried out by the Sustainable Development area, in addition to the inclusion of the calculation of the increase and reduction of emissions in logistics initiatives. From now on, actions will be taken toward critically analyzing the results and identifying actions to reduce emissions.

### EVOLUTION OF THE ETHANOL SUPPLY INDICATOR IN THE FLEET



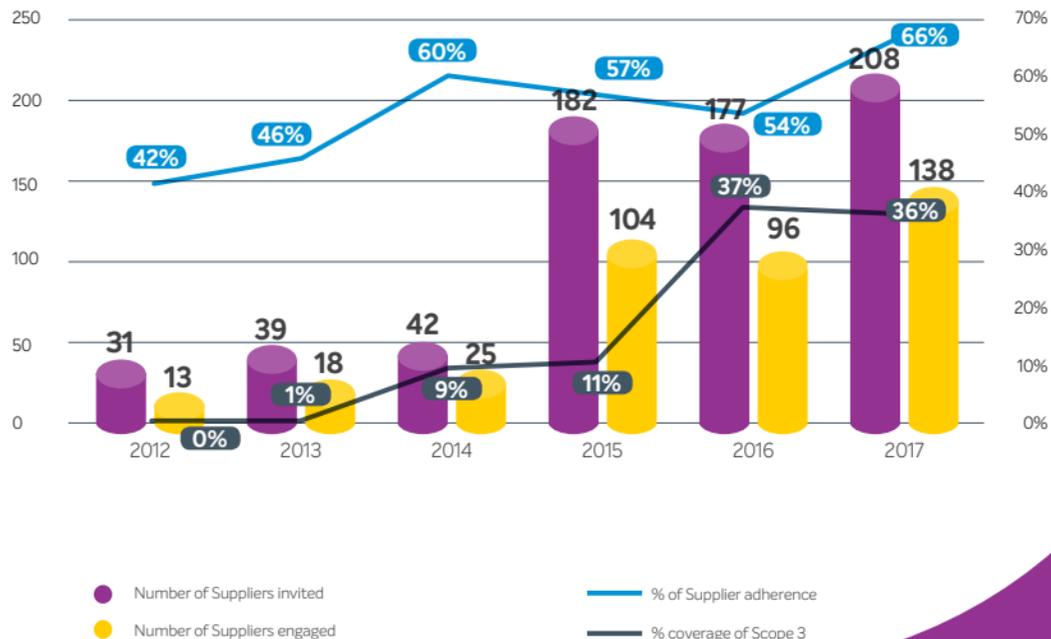
## SUPPLIER ENGAGEMENT IN CLIMATE CHANGE

For six years, Braskem has engaged in actions with suppliers, volunteer engagement initiatives focused on sustainability. This work is a way to train our stakeholders on issues such as climate change and water supply crisis to expand the management of reported conditions.

To this end, the company develops initiatives annually with the support of the CDP Supply Chain program, such as awareness actions, incentive to developing and reporting emissions inventory, and identifying risks and opportunities. Braskem then uses the data reported by our Suppliers, in order to evaluate their evolution and improve the management involving one or both companies, improve our relationship with these Suppliers, and increase the network of companies involved in sustainable actions.

As a result, in 2017, there was an increase in the number of Suppliers invited and engaged in the Climate and Water Supply programs from 96 in 2016 to 138, due to the expansion of Braskem's Scope 3 report. It is important to note that despite the increase in the percentage of Suppliers engaged through the program, the percentage of Scope 3 coverage remained stable.

### SUPPLIER ENGAGEMENT - CLIMATE CHANGE



### OTHER EMISSIONS 305-6, 305-7

In addition to greenhouse gases, Braskem manages other air emissions within its responsibility, such as nitrogen oxides (NO<sub>x</sub>) and sulfur oxides (SO<sub>x</sub>), Volatile Organic Compounds (VOCs), and others. In 2017, the other air emissions managed remained at steady levels. Special highlight for reduced SO<sub>x</sub> emissions, mainly impacted by coal burning below plan in Rio Grande do Sul.

### EVOLUTION OF OZONE DEPLETING SUBSTANCES (ODS) EMISSIONS – t

ODS	2013	2014	2015	2016	2017
Tons of CFC-11 Equivalent	180.5	48.6	55.3	3.0	1.7

### EVOLUTION OF EMISSIONS OF SO<sub>x</sub>, NO<sub>x</sub>, AND OTHER SIGNIFICANT SUBSTANCES – t

Emission*	2013	2014	2015	2016	2017
NO <sub>x</sub>	12,157	11,421	9,546	9,651	10,509
SO <sub>x</sub>	6,582	11,509	4,503	3,137	3,779
Volatile Organic Compounds	2,707	3,881	3,808	6,139	6,811**
Particulate Matter	1,547	1,225	911	860	911
Toxic Air Pollutants***	549	97	652**	531	677
Other****	6,108	6,190	14,495**	4,145	4,746

\* The methodologies used are recommended by state environmental agencies. Where there is no measurement, estimates (emission factors) based on recognized methods, such as AP-42 from USEPA, are used.

\*\* The plants have been broadening their assessments. This explains the increase in these parameters.

\*\*\* Includes Toxic Air Pollutants and HAP

\*\*\*\* Includes total hydrocarbons and carbon monoxide.

Even with the start of operation of Braskem Idesa in Mexico, and with the respective increase in production, there is stability and even a downward trend in the emission of some pollutants.



# SUMMARY OF GRI CONTENT STANDARDS



# Summary of GRI content standards 102-55

GRI Standard	Disclosure	Page and/or disclosure	Principles of the Global Compact
<b>GENERAL DISCLOSURES</b>			
	102-1 - Name of the organization	2	
	102-2 - Activities, brands, products and services	8	
	102-3 - Location of headquarters	102	
	102-4 - Location of operations	10	
	102-5 - Ownership and legal form	Braskem was formed in August 2002 by the merge of six Odebrecht Group companies and the Mariani Group. We are a publicly traded corporation with several industrial units in Brazil, the United States, Germany, and Mexico (through a joint venture with Idesa). Visit <a href="http://www.braskem-ri.com.br/ownership-structure">www.braskem-ri.com.br/ownership-structure</a> for more details.	
GRI 102: general Disclosures	102-6 - Markets served	10	
	102-7 - Scale of the organization	10	
	102-8 - Information on employees and other workers	45	6
	102-9 - Supply chain	62	
	102-10 - Significant changes to the organization and its supply chain	There was no significant change during the period covered by the report.	

GRI Standard	Disclosure	Page and/or disclosure	Principles of the Global Compact
	102-11 - Precautionary Principle or approach	As a principle and in accordance with the Health, Safety, Environment, Quality, and Productivity Policy, Braskem does not produce, handle, use, market, transport, or dispose of any product if unable to do so safely, with a minimum impact on the environment.	
	102-12 - External initiatives	12, 13	
GRI 102: general Disclosures	102-13 - Participation in associations	12	
	102-14 - Statement from senior decision-maker	4 a 6	
	102-16 - Values, principles, standards, and norms of behavior	15	10
	102-17 - Mechanisms for advice and concerns about ethics	21	10
	102-18 - Governance structure	15	
	102-23 - Chair of the highest governance body	15	

GRI Standard	Disclosure	Page and/or disclosure	Principles of the Global Compact
GRI 102: general Disclosures	102-40 - List of stakeholder groups	Members (including Company leaders), Funders, Clients, Suppliers, Academia, Local Stakeholders (NGOs, Community, Trade Entities), Opinion Formers (Government, Press), and the General Public. Visit <a href="http://www.braskem.com.br/material-issues-assesment">www.braskem.com.br/material-issues-assesment</a> for more details.	3
	102-41 - Collective bargaining agreements	54	
	102-42 - Identifying and selecting stakeholders	The identification and selection of our stakeholders for engagement was based on groups that play a role of influencers, enablers, impacting, and benefited by the relationship with the Company. Visit <a href="http://www.braskem.com.br/material-issues-assesment">www.braskem.com.br/material-issues-assesment</a> for more details.	
	102-43 - Approach to stakeholder engagement	We periodically evaluate our relevant aspects in order to support our strategy to contribute to sustainable development. The most recent evaluation occurred in 2013, and will be renewed in 2018. Visit <a href="http://www.braskem.com.br/material-issues-assesment">www.braskem.com.br/material-issues-assesment</a> to learn about our materiality matrix.	
	102-44 - Key topics and concerns raised	<a href="http://www.braskem.com.br/material-issues-assesment">www.braskem.com.br/material-issues-assesment</a>	
	102-45 - Entities included in the consolidated financial statements	25	

GRI Standard	Disclosure	Page and/or disclosure	Principles of the Global Compact
GRI 102: general Disclosures	102-46 - Defining report content and topic Boundaries	<a href="http://www.braskem.com.br/material-issues-assesment">www.braskem.com.br/material-issues-assesment</a>	
	102-47 - List of material aspects	<a href="http://www.braskem.com.br/material-issues-assesment">www.braskem.com.br/material-issues-assesment</a>	
	102-48 - Restatements of information	There was no significant change during the period covered by the report.	
	102-49 - Changes in reporting	There was no significant change during the period covered by the report.	
	102-50 - Reporting period	January 1 to December 31, 2017.	
	102-51 - Date of most recent report	2016	
	102-52 - Reporting cycle	Annual	
	102-53 - Contact point for questions regarding the report	102	
	102-54 - Claims of reporting in accordance with the GRI Standards	This report was prepared in accordance with GRI Standards: Core option.	
	102-55 - GRI content index	94 a 101	
	102-56 - External assurance	The external assurance, performed by KPMG, occurs at the request of the Leaders and is part of the set of annual goals of those responsible for preparing the report.	
<b>MATERIAL TOPICS</b>			
<b>ECONOMIC PERFORMANCE</b>			
<b>Macro Goal: Economic and Financial Results</b>			
GRI 103: Management Approach	103-1 - Explanation of the material aspect and its Boundaries	<a href="http://www.braskem.com.br/material-issues-assesment">www.braskem.com.br/material-issues-assesment</a>	
	103-2 - The management approach and its components	24 a 34	
	103-3 - Evaluation of the management approach	24 a 34	

GRI Standard	Disclosure	Page and/or disclosure	Principles of the Global Compact
GRI 201: Economic performance	201-1 - Direct economic value generated and distributed	24	
	201-2 - Financial implications and other risks and opportunities due to climate change	86 a 92	7
	201-4 - Financial assistance received from government	69	
<b>MARKET PRESENCE</b>			
<b>Macro Goal: Local development</b>			
GRI 103: Management Approach	103-1 - Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 - The management approach and its components	43 a 54	
	103-3 - Evaluation of the management approach	43 a 54	
GRI 202: Market Presence	202-1 - Ratios of standard entry level wage by gender compared to local minimum wage	46	6
	202-2 - Proportion of senior management hired from the local community	46	6
<b>INDIRECT ECONOMIC IMPACTS</b>			
<b>Macro Goal: Local development</b>			
GRI 103: Management Approach	103-1 - Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 - The management approach and its components	55 a 59	
	103-3 - Evaluation of the management approach	55 a 59	
GRI 203: Indirect Economic Impacts	203-1 - Infrastructure investments and services supported	55 a 56	

GRI Standard	Disclosure	Page and/or disclosure	Principles of the Global Compact
<b>PROCUREMENT PRACTICES</b>			
<b>Macro Goal: Local development</b>			
GRI 103: Management Approach	103-1 - Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 - The management approach and its components	60 a 66	
	103-3 - Evaluation of the management approach	60 a 66	
GRI 204: Procurement Practices	204-1 - Proportion of spending on local suppliers	61	
<b>ANTI-CORRUPTION</b>			
<b>Macro Goal: Strengthening of Practices</b>			
GRI 103: Management Approach	103-1 - Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 - The management approach and its components	16 a 18	
	103-3 - Evaluation of the management approach	16 a 18	
GRI 205: Anti-corruption	205-3 - Confirmed incidents of corruption and actions taken	There were no confirmed cases of corruption during the period.	10
<b>ANTI-COMPETITIVE BEHAVIOR</b>			
<b>Macro Goal: Strengthening of Practices</b>			
GRI 103: Management Approach	103-1 - Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 - The management approach and its components	16 a 18	
	103-3 - Evaluation of the management approach	16 a 18	
GRI 206: Anti-competitive Behavior	206-1 - Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Nothing to report. Braskem does not have any such process.	

GRI Standard	Disclosure	Page and/or disclosure	Principles of the Global Compact
<b>MATERIALS</b>			
<b>Macro Goal: Renewable resources</b>			
GRI 103: Management Approach	103-1 - Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 - The management approach and its components	58, 71 a 74, 85	
	103-3 - Evaluation of the management approach	58, 71 a 74, 85	
GRI 301: Materials	301-1 - Materials used by weight or volume	85	7, 8
	301-2 - Recycled input materials used	85	8
	301-3 - Reclaimed products and their packaging materials	58	8
<b>ENERGY</b>			
<b>Macro Goal: Energy efficiency</b>			
GRI 103: Management Approach	103-1 - Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 - The management approach and its components	71 a 74, 83 a 84	
	103-3 - Evaluation of the management approach	71 a 74, 83 a 84	
GRI 302: Energy	302-1 - Energy consumption within the organization	83 a 84	7, 8
	302-3 - Energy intensity	83 a 84	8
	302-4 - Reduction of energy consumption	83 a 84	8, 9

GRI Standard	Disclosure	Page and/or disclosure	Principles of the Global Compact
<b>WATER</b>			
<b>Macro Goal: Water efficiency</b>			
GRI 103: Management Approach	103-1 - Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 - The management approach and its components	71 a 74, 79 a 82	
	103-3 - Evaluation of the management approach	71 a 74, 79 a 82	
GRI 303: Water	303-1 - Water withdrawal by source	79 a 82	7, 8
	303-3 - Water recycled and reused	79 a 82	8
<b>BIODIVERSITY</b>			
<b>Macro Goal: Strengthening of practices</b>			
GRI 103: Management Approach	103-1 - Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 - The management approach and its components	71 a 74	
	103-3 - Evaluation of the management approach	71 a 74	
GRI 304: Biodiversity	304-2 - Significant impacts of activities, products, and services on biodiversity	In 2017, there were no significant impacts on biodiversity (valid for Mexico, where this aspect is material).	8
	304-4 - IUCN Red List species and national conservation list species with habitats in areas affected by the organization's operations	Two species (Ceratozamia miqueliana and Zamia loddigesii).	8
<b>EMISSIONS</b>			
<b>Macro Goal: Energy efficiency</b>			
GRI 103: Management Approach	103-1 - Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 - The management approach and its components	71 a 74, 86 a 92	
	103-3 - Evaluation of the management approach	71 a 74, 86 a 92	

GRI Standard	Disclosure	Page and/or disclosure	Principles of the Global Compact
GRI 305: Emissions	305-1 – Direct (Scope 1) GHG emissions	86 a 92	7, 8
	305-2 – Energy indirect (Scope 2) GHG emissions	86 a 92	7, 8
	305-3 – Other indirect (Scope 3) GHG emissions	86 a 92	7, 8
	305-4 – GHG emissions intensity	86 a 92	8
	305-5 – Reduction of GHG emissions	86 a 92	8, 9
	305-6 – Emissions of ozone-depleting substances (ODS)	86 a 92	7, 8
	305-7 – Nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ), and other significant air emissions	86 a 92	7, 8

**EFFLUENTS AND WASTE**
**Macro Goal: Safety**

GRI 103: Management Approach	103-1 – Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 – The management approach and its components	71 a 74, 79 a 82, 85	
	103-3 – Evaluation of the management approach	71 a 74, 79 a 82, 85	
GRI 306: Effluents and waste	306-1 – Water discharge by quality and destination	79 a 82	8
	306-2 – Waste by type and disposal method	85	8

**ENVIRONMENTAL COMPLIANCE**
**Macro Goal: Strengthening of Practices**

GRI 103: Management Approach	103-1 – Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 – The management approach and its components	16 a 18, 71 a 74	
	103-3 – Evaluation of the management approach	16 a 18, 71 a 74	

GRI Standard	Disclosure	Page and/or disclosure	Principles of the Global Compact
GRI 307: Environmental Compliance	307-1 – Non-compliance with environmental laws and regulations		8

Nothing to report. We had assessments during the period, both environmental and regulatory; however, the Company was not definitively ordered to pay fines or to comply with non-monetary sanctions during the period in question. For the purpose of this report, the same materiality criteria used in the Reference Form established by the Brazilian Securities and Exchange Commission ("CVM") was adopted, pursuant to CVM Instruction 480/2009 BRL 60 million. For environmental issues, the amount of BRL 10 million was considered.

**SUPPLIER ENVIRONMENTAL ASSESSMENT**
**Macro Goal: Strengthening of Practices**

GRI 103: Management Approach	103-1 – Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 – The management approach and its components	71 a 74, 60 a 66	
	103-3 – Evaluation of the management approach	71 a 74, 60 a 66	
GRI 308: Supplier Environmental Assessment	308-1 – New suppliers that were screened using environmental criteria	60 a 66	8

**EMPLOYMENT**
**Macro Goal: Economic and Financial Results**

GRI 103: Management Approach	103-1 – Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 – The management approach and its components	43 a 54	

GRI Standard	Disclosure	Page and/or disclosure	Principles of the Global Compact
GRI 103: Management Approach	103-3 - Evaluation of the management approach	43 a 54	
	401-1 - New employee hires and employee turnover	47, 51 a 52	6
	401-2 - Benefits provided to full-time employees that are not provided to temporary or part-time employees	53	
GRI 401: Employment		In Brazil, we track the number of maternity leaves and the percentage of termination up to one year after returning from the leave. In 2017, of the 69 Members who took maternity leave, 61 remained in the company after one year, a return rate of 88%. The paternity leave indicator is not monitored. In other countries where we have operations, this indicator is not yet monitored.	6
	401-3 - Parental leave		
<b>OCCUPATIONAL HEALTH AND SAFETY</b>			
<b>Macro Goal: Safety</b>			
GRI 103: Management Approach	103-1 - Explanation of the material aspect and its Boundaries	<a href="http://www.braskem.com.br/material-issues-assesment">www.braskem.com.br/material-issues-assesment</a>	
	103-2 - The management approach and its components	71 a 74, 75	
	103-3 - Evaluation of the management approach	71 a 74, 75	

GRI Standard	Disclosure	Page and/or disclosure	Principles of the Global Compact
GRI 403: Occupational Health and Safety	403-2 - Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	74	
	403-4 - Health and safety topics covered in formal agreements with trade unions	54	
<b>TRAINING AND EDUCATION</b>			
<b>Macro Goal: Strengthening of Practices</b>			
GRI 103: Management Approach	103-1 - Explanation of the material aspect and its Boundaries	<a href="http://www.braskem.com.br/material-issues-assesment">www.braskem.com.br/material-issues-assesment</a>	
	103-2 - The management approach and its components	43 a 54	
	103-3 - Evaluation of the management approach	43 a 54	
GRI 404: Training and Education	404-2 - Programs for upgrading employee skills and transition assistance programs	53	
	404-3 - Percentage of employees receiving regular performance and career development reviews	50-52	6
<b>DIVERSITY AND EQUAL OPPORTUNITY</b>			
<b>Macro Goal: Strengthening of Practices</b>			
GRI 103: Management Approach	103-1 - Explanation of the material aspect and its Boundaries	<a href="http://www.braskem.com.br/material-issues-assesment">www.braskem.com.br/material-issues-assesment</a>	
	103-2 - The management approach and its components	43 a 54	
	103-3 - Evaluation of the management approach	43 a 54	

GRI Standard	Disclosure	Page and/or disclosure	Principles of the Global Compact
GRI 405: Diversity and equal opportunity	405-1 – Diversity of governance bodies and employees	45, 47 a 50	6
<b>NON-DISCRIMINATION</b>			
<b>Macro Goal: Strengthening of Practices</b>			
GRI 103: Management Approach	103-1 – Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 – The management approach and its components	21 a 22	
	103-3 – Evaluation of the management approach	21 a 22	
GRI 406: Non-discrimination	406-1 – Incidents of discrimination and corrective actions taken	21 a 22	6
<b>LOCAL COMMUNITIES</b>			
<b>Macro Goal: Local development</b>			
GRI 103: Management Approach	103-1 – Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 – The management approach and its components	55 a 59, 71 a 74, 76 a 77	
	103-3 – Evaluation of the management approach	55 a 59, 71 a 74, 76 a 77	
GRI 413: Local Communities	413-1 – Operations with local community engagement, impact assessments, and development programs	56 a 59	1
	413-2 – Operations with significant actual and potential negative impacts on local communities	71, 76 a 77	1

GRI Standard	Disclosure	Page and/or disclosure	Principles of the Global Compact
<b>SUPPLIER SOCIAL ASSESSMENT</b>			
<b>Macro Goal: Strengthening of Practices</b>			
GRI 103: Management Approach	103-1 – Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 – The management approach and its components	60 a 66	
	103-3 – Evaluation of the management approach	60 a 66	
GRI 414: Supplier Social Assessment	414-1 – New suppliers that were screened using social criteria	60 a 66	2
<b>PUBLIC POLICIES</b>			
<b>Macro Goal: Strengthening of Practices</b>			
GRI 103: Management Approach	103-1 – Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 – The management approach and its components	69	
	103-3 – Evaluation of the management approach	69	
GRI 415: Public Policy	415-1 – Political contributions	Zero	10
<b>CUSTOMER HEALTH AND SAFETY</b>			
<b>Macro Goal: Safety</b>			
GRI 103: Management Approach	103-1 – Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 – The management approach and its components	71 a 74, 78	
	103-3 – Evaluation of the management approach	71 a 74, 78	

GRI Standard	Disclosure	Page and/or disclosure	Principles of the Global Compact
GRI 416: Customer Health and Safety	416-1 - Assessment of the health and safety impacts of product and service categories	78	
	416-2 - Incidents of non-compliance concerning the health and safety impacts of products and services	78	
<b>MARKETING AND LABELING</b>			
<b>Macro Goal: Strengthening of Practices</b>			
GRI 103: Management Approach	103-1 - Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 - The management approach and its components	78	
	103-3 - Evaluation of the management approach	78	
GRI 417: Marketing and Labeling	417-1 - Requirements for product and service information and labeling	78	
	417-2 - Incidents of non-compliance concerning product and service information and labeling	78	
	417-3 - Incidents of non-compliance concerning marketing communications	Zero. The Company declares non-existence of non-compliance with regulations and voluntary codes regarding marketing communications, including advertising, promotion, and sponsorship.	

GRI Standard	Disclosure	Page and/or disclosure	Principles of the Global Compact
<b>SOCIOECONOMIC COMPLIANCE</b>			
<b>Macro Goal: Strengthening of Practices</b>			
GRI 103: Management Approach	103-1 - Explanation of the material aspect and its Boundaries	www.braskem.com.br/material-issues-assesment	
	103-2 - The management approach and its components	16 a 18	
	103-3 - Evaluation of the management approach	16 a 18	
GRI 419: Socioeconomic Compliance	419-1 - Non-compliance with laws and regulations in the social and economic area	<p>Braskem had assessments during the period, both environmental and regulatory; however, the Company was not definitively ordered to pay fines or to comply with non-monetary sanctions during the period in question. For the purpose of this report, the same materiality criterion used in the Reference Form established by the Brazilian Securities and Exchange Commission ("CVM") was adopted, pursuant to CVM Instruction 480/2009 BRL 60 million. For environmental issues, the amount of BRL 10 million was considered.</p>	

## LIMITED ASSURANCE REPORT ISSUED BY INDEPENDENT AUDITORS

To the Board of Directors, Shareholders and Stakeholders

### **Braskem S.A.**

São Paulo - SP

### **Introduction**

We have been engaged by Braskem S.A. (Braskem or "Company") to apply limited assurance procedures on the sustainability information disclosed in Braskem's Annual and Sustainability Report 2017, related to the year ended December 31st, 2017.

### **Responsibilities of Braskem's Management**

The Management of Braskem is responsible for adequately preparing and presenting the sustainability information in the Annual and Sustainability Report 2017 in accordance with the Standards for Sustainability Report of Global Reporting Initiative -GRI, as well as the internal controls determined necessary to ensure this information is free from material misstatement, resulting from fraud or error.

### **Independent auditors' responsibility**

Our responsibility is to express a conclusion about the information in the Annual and Sustainability Report 2017 based on a limited assurance engagement conducted in accordance with Technical Communication (TC) 07/2012,

which was prepared based on NBC TO 3000 (Assurance Engagements Other Than Audits and Reviews), both issued by the Brazilian Federal Accounting Council - CFC and equivalent to international standard ISAE 3000, issued by the International Federation of Accountants and applicable to Non-Financial Historical Information. These standards require compliance with ethical requirements, including independence ones, and the engagement is also conducted to provide limited assurance that the information disclosed in the Braskem's Annual and Sustainability Report 2017, taken as a whole, is free from material misstatement.

A limited assurance engagement conducted in accordance with NBC TO 3000 (ISAE 3000) consists mainly of questions and interviews with the Management of Braskem and other professionals of the Company involved in the preparation of the information disclosed in the Annual and Sustainability Report 2017 and use of analytical procedures to obtain evidence that enables us to reach a limited assurance conclusion about the sustainability information taken as a whole. A limited assurance engagement also requires additional procedures when the independent auditor acknowledges issues which may lead them to believe that the information disclosed in the Annual and Sustainability Report 2017 taken as a whole could present material misstatement.



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The selected procedures were based on our understanding of the issues related to the compilation, materiality and presentation of the information disclosed in the Annual and Sustainability Report 2017, on other engagement circumstances and also on our considerations regarding areas and processes associated with material sustainability information disclosed where relevant misstatement could exist. The procedures consisted of:

- (a) Engagement planning: considering the material aspects for Braskem's activities, the relevance of the information disclosed, the amount of quantitative and qualitative information and the operational systems and internal controls that served as a basis for preparation of the information in the Braskem's Annual and Sustainability Report 2017. This analysis defined the indicators to be checked in details;
- (b) Understanding and analysis of disclosed information related to material aspects management;
- (c) Analysis of preparation processes of the Annual and Sustainability Report 2017 and its structure and content, based on the Principles of Content and Quality of the Standards for sustainability report of the Global Reporting Initiative - GRI (GRI-Standards);
- (d) Evaluation of non financial indicators selected:

- Understanding of the calculation methodology and procedures for the compilation of indicators through interviews with management responsible for data preparation;
- Application of analytical procedures regarding data and interviews for qualitative information and their correlation with indicators disclosed in the Annual and Sustainability Report 2017;
- Analysis of evidence supporting the disclosed information;
- Visits to three Braskem's operations and to the corporate office for application of these procedures, and items (b) and (c);
- (e) Analysis of whether the performance indicators omission and justification are reasonable to be accepted associated to aspects and topics defined as material in the materiality analysis of the Company;

- (f) Comparison of financial indicators with the financial statements and/or accounting records.

We believe that the information, evidence and results we have obtained are sufficient and appropriate to provide a basis for our limited assurance conclusion.

**Scope and limitations**

The procedures applied to a limited assurance engagement are substantially less extensive than those applied to a reasonable assurance engagement. Therefore, we cannot provide reasonable

assurance that we are aware of all the issues that would have been identified in a reasonable assurance engagement, which aims to issue an opinion. If we had conducted a reasonable assurance engagement, we may have identified other issues and possible misstatements within the information presented in the Annual and Sustainability Report 2017.

Nonfinancial data is subject to more inherent limitations than financial data, due to the nature and diversity of the methods used to determine, calculate or estimate these data. Qualitative interpretation of the data's materiality, relevance and accuracy are subject to individual assumptions and judgments. Additionally, we have not examined data related to prior periods, to evaluate the adequacy of policies, practices and sustainability performance, nor future projections.

**Conclusion**

Based on the procedures carried out, described earlier in this report, we have not identified any relevant information that leads us to believe that the information in the 2017 Annual and Sustainability Report of Braskem is not fairly stated in all material aspects in accordance with the Standards for Sustainability Report of Global Reporting Initiative - GRI (GRI-Standards), as well as its source records and files.

São Paulo, May 18th, 2018  
KPMG Assessores Ltda.  
CRC SP 034262/F

**Eduardo V. Cipullo**  
Accountant CRC 1SP135597/O-6

KPMG Financial Risk & Actuarial  
Services Ltda.

**Ricardo Algis Zibas**

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