

Innovation and Technology for Sustainable Development



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Just 18 months after commencing operations in Mexico, Braskem Idesa is the leading producer of polyethylene in the country. Our petrochemical plant in Nanchital is a benchmark of sustainable innovation and technology for the global plastic manufacturing industry.

Thanks to the hard-work and commitment of a team of skilled employees, in 2017 we successfully positioned our organization by streamlining production and consolidating our presence on both the domestic and global market.

Our financial results were more than satisfactory, reflecting the important role our company plays in this strategic sector for Mexican industry. In 2017, we produced 923,550 tons of polyethylene, driving sales of MXN \$21.368 billion. Since the Braskem Idesa commenced operations, polyethylene imports have decreased from 73% to 58%, not to mention the fact that the product is now being exported to more than 43 countries in Europe, Asia and the Americas.

We improved engagement with our stakeholders thanks to our sustainable vision. In total, we invested MXN \$10 million to offer our 785 employees 27.912 training hours to help prepare them to perform better and maximize their potential. Our suppliers also received training regarding ethics and how to track emissions. We focused on quality and safeguarding our standards in order to meet the needs of our approximately 400 customers. We also continued to support 11 projects in communities surrounding the plants, consolidating community safety and health programs, in addition to promoting environmental awareness initiatives in conjunction with industry bodies and members of the local community.

102-14

102–14

In 2017, we also implemented several environmental sustainability strategies. We identified 347 species that require monitoring by the Biodiversity Protection Department at our plant in the state of Veracruz. We are working alongside schools in Nanchital to promote plastic recycling, organizing a Plasti-Market, an event where plastic waste could be exchanged for basic foodstuffs. We collected 6 tons of plastic in collaboration with families from the community.

The financial, social and environmental well-being that our operations promote are only possible as part of an ethical and transparent business framework. To ensure compliance with national and international industry standards, in addition to helping promote an ethical and corruption–free workplace, in 2017 we created the Compliance Department, which is tasked with overseeing this goal. We trained 99% of our employees in ethics and anti–corruption measures, helping provide them with the tools they need to better tackle the challenges facing the business.

We reaffirmed our commitment to promoting responsible operations by being awarded the Socially Responsible Company certification, presented to Braskem Idesa by the Mexican Center for Philanthropy (CEMEFI). This certification process enabled us to evaluate our corporate social responsibility and sustainability strategies and actions.

This is the second consecutive year that we have published this report, which summarizes our vision, actions and results in the area of sustainability, helping provide our stakeholders with information about the challenges we face and the advances we have made.

I would like to invite you to read through the report to learn more about our performance and commitment, and learn more about what drives us to strive for more and better results in the future.





# **History**

2009

# 2010

Braskem and Grupo Idesa win the Pemex tender to supply ethane.

**Ethane Tender** 

### **Creation of Braskem Idesa**

The company is incorporated and the XXI Ethylene Project gets underway.

2012

# **Civil Engineering Project Begins**

Pre-commercialization process for selling ethane to Mexican customers. Financing phase comes to a close.

**Assembly of Main Equipment** 

# 2016

# **Operations Begin at the Plant**

The construction phase comes to an end, while PE production gets underway.

# **Site Preparation**

Braskem Idesa becomes a legally incorporated company.

# 2013

2011

# **End of Financing Phase**

Maintenance and Operations departments are created.

2015

**End of Construction Phase and Beginning of** Commissioning

# Strengthening of the operations

Operations begin at the plant. Consolidation of community engagement strategies.

# **Market and Products**

As our operations advances and we continue to develop, Braskem Idesa is consolidating its presence in Mexico, contributing to economic growth in the country. Since we began operations, we have created jobs for Mexican people and exported our products to more than 40 countries.

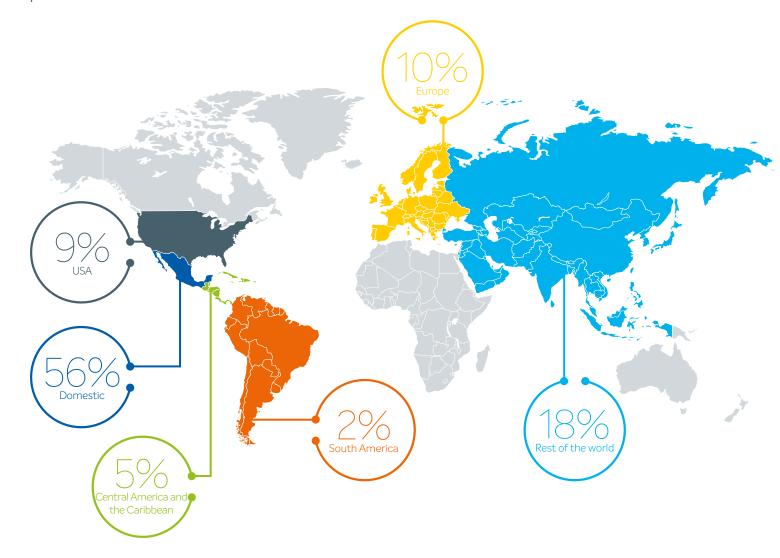
Company

Braskem Idesa was created in 2010 following the partnership of Braskem (75% shareholder), the leading producer of thermoplastic resins in the Americas, and Grupo Idesa (25% shareholder), one of Mexico's major business consortiums, which has more than 60 years' experience in petrochemical production, chemical product distribution, and technological development.

The collaboration between both companies has resulted in the pooling of our experience to help jointly operate the Braskem Idesa plant. The focus of this partnership is the development of a petrochemical plant for the production of polyethylene and other basic chemical products located in the community of *Nanchital de Lázaro Cárdenas del Río* in the state of Veracruz. USD \$5.2 billion has been invested to date.

Since operations began in 2016, we have achieved an annual production capacity of 1,050,000 tons of high- and low-density polyethylene.





10 ) 11

#### 102-6

Polyethylene is a material that is in high demand and is used to manufacture products for daily use, such as bags, films and packaging. We provide services to the following sectors:





# Agriculture

- · Monofilament, greenhouse netting and shade cloth
- Injection
- Industrial bags
- Agricultural film

# Construction

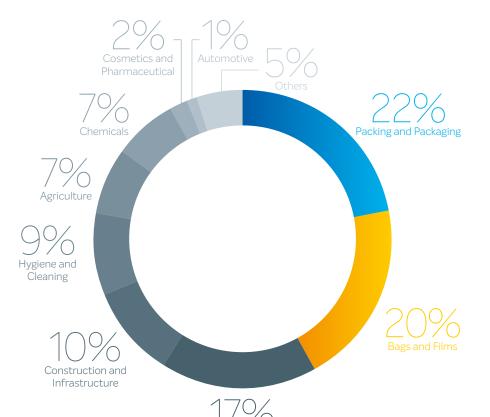
· Telecommunications, irrigation and gas pipes

# **Personal Hygiene** and Cleaning

- Flexible packaging film
- Packaging for cleaning products, detergents and personal care

#### **Others**

- General purpose and automated packaging films (various products)
- Blow-molded packaging
- Lids, domestic utensils and toys
- Transparent film for frozen and packaged food, and bread products
- Injected products such as buckets, toys, lids, etc.



Polyethylene is a compound that can adapt to the needs of each sector, which is why Braskem Idesa produces two types of polyethylene: high-density polyethylene (for thicker and more resistant plastic containers) and low-density polyethylene (for plastics that offer greater flexibility compared to high-density ones). This means that we can meet the needs of our clients through innovative solutions produced using the most cutting-edge technology in Mexico and the world.

Our portfolio of products complies with the highest quality standards for both domestic and industry use. At Braskem Idesa, we classify our products based on the production process and application:

# **Blow-Molded**

# Small Volume Blow-Molded.

Used in the production of small packaging units with a capacity of up to 25 liters for chemicals, domestic products, oils and food products, in addition to being used in plate and corrugated pipe extrusion.

### Large Volume Blow-Molded.

Used to create high-performance containers with a capacity ranging between 1 and up to 240 liters for packaging materials that require special handling.

# Film

# High Molecular Weight Film.

Used mainly in pipes.

# Low-Density Polyethylene Film.

Used for bags and sacks, blow-molded film, flat film, and food packaging film.

#### Thermo-Shrink Film.

Various applications: packaging for a range of products, heavy-duty bags, bottles for consumer goods, combinations with high- and low-density polyethylene for extrusion and molding processes.

# Injection

Used to produce containers and packaging for food products. It is also used in articles for the home.

# **Corrugated Pipes & Conduit**

Used in pipes and containers for the home and the chemical and pharmaceutical industries, among others.



102-16

# **Principles and Values**

At Braskem Idesa, we strive to meet the expectations of our stakeholders, focusing on mitigating the impact of our operations and maintaining an ethical approach in all our activities. We achieve this by embodying the principles that govern our company:

### Integrity:

We ensure that ethical integrity is an integral part of the systems that govern the company's internal and external relations.

### Transparency:

We provide transparent information and promote free, accurate and <u>effective communication</u>.

### • Ethics:

We act based on a framework of standards that are legal, statutory or regulatory in nature.

### Continuity:

We closely monitor our operations and ensure compliance in all areas.

# Responsibility:

We help the Board of Directors ensure the sustainability of the company by incorporating a wide-ranging business strategy that encompasses sustainable development principles.

#### Equality:

We treat our stakeholders in a fair and equitable manner.

Furthermore, Braskem Idesa has established a set of values that underpin our quality standards and the policies that govern our operations, embodying them to help guide each and every one of the relationships we have with our different stakeholders.

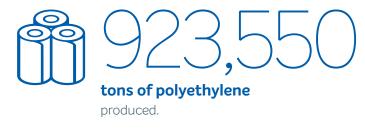
- Trust in People and in their capacity and desire to prosper.
- Customer Satisfaction, focusing on quality, productivity and environmental and social responsibility.
- Returns for Shareholders and the valuation of their assets.
- Collaboration between those who participate in the design and implementation of the company's operations, in addition to its business results.
- **Employee Self-Development,** mainly through workplace education, driving the growth and sustainability of the organization.
- Reinvestment to create new employment opportunities and contribute to community development.



# **Braskem Idesa in Figures**













of sales are exported to more than **43 countries around the world.** 













102-42



Braskem Idesa's goal is to maintain its market leadership and grow as a company. We are well aware of the importance of identifying the groups that directly or indirectly participate in our operations, ensuring on-going communication through a number of channels and helping meet their expectations. To achieve this, we have created functional mechanisms to help drive a more robust and reciprocal relationship with each of these groups, ensuring all communication with them is constant and satisfactory.

# **Stakeholders** Description $\circ \circ \circ$ Employees of Braskem Idesa who work to achieve the company's business goals and whose rights as workers are respected by the company, which promotes their professional development and respects the diversity they offer. **Employees** People who supply the resources, raw materials and services required for the expected operational and production levels. Braskem Idesa treats them fairly and impartially, contributing to their development as a sustainable part of the value chain. Institutions that advocate for the interests of the sector in which Braskem Idesa operates. The company engages with them to drive the best possible social and/ or economic impact. **Associations** Companies that use Braskem Idesa's products to reach their end consumers. Braskem Idesa strives to meet their needs through innovation, technology and the highest levels of quality and service. Clients Groups that work alongside Braskem Idesa to drive social development, knowledge, and growth in the communities in which the company operates. **Organizations and Institutions** Those people on which the company's operations have an impact or benefit. Braskem Idesa strives to operate responsibly and transparently in its dealings with the community, helping drive its development and contributing to safeguarding its natural resources, in addition to organizing activities that benefit it socially. Community Domestic or international government bodies, whose regulations and auditing processes regulate Braskem Idesa's operations and processes. **Authorities** Publications that transmit and create informative content for public or private use, and which have an influence on Braskem Idesa and its surroundings. **Media Outlets**

# Expectations Communication Channels

• E-mail

Newsletters

Bulletin board

Meetings

Commissions

Working groups

Events

Braskem Idesa TV

Braskem Idesa View

- Good work environment
- Talent attraction and retention
- Career development
- Workplace diversity and equality
- Opportunities for professional growth
- Performance recognition
- Attractive salaries and benefits
- Workplace integration
- Fair trade practices
- Fair competitio
- Supply responsibilit
- Transparent assessmen
- Partnerships to promote better quality of life
- Agreements to promote a sustainable culture of plastic
- Quality and safety
- Efficient time management
- Price vs. quality
- Opportune monitoring and follow-up
- Partnerships to promote sustainable development
- Social support
- Contributions to community development
- Donations

• E-mail

Suggestions box

Face-to-face visits

- Commentions have
- F-mail

Meetings

- Community telephone
- Semi-annual reports
- Open Houses

- Compliance
- Forging of partnerships to drive development
- Meetings
- Joint events

- Clear and true information
- Relevant information for public analys
- Focus on significant issues

- Meetings
- Conference
- Interviews
- Advertorials
- Press seminars





Braskem Idesa is firmly committed to ensuring the sustainability of its operations, society and the planet. By simultaneously driving economic growth, environmental conservation and social justice, we aim to meet the needs of our stakeholders, both now and in the future. Our sustainability is based on three strategic pillars, ranging from production inputs to the solutions that we offer.



# **Global Sustainable Development Policy**

In 2017, Braskem Idesa implemented its Global Sustainable Development Policy, the goal of which is to reaffirm and consolidate the company's commitment to sustainable development. This policy is the framework that governs all relationships with our stakeholders, in addition to helping guide our strategic, tactical and operational planning processes to drive sustainability.

# **Material Issues**

The Global Sustainable Development Policy states that the relevance of all issues relating to the company's sustainability (materiality) must be assessed periodically. This assessment process helps Braskem Idesa to identify on-going areas of opportunity associated with the impacts generated by a company from

In 2016, an internal materiality analysis was undertaken in accordance with the Global Reporting Initiative (GRI) methodology. For the purposes of this report, the results of this analysis were reviewed and the material issues outlined below were validated:



- Water
- **Climate Change and Energy**
- Air
- Waste
- 5 Biodiversity
- Post-Consumer
- Suppliers-Environmental Management
- 9 Freedom of Association
- 10 Health and Safety
- 11 Training and Career







# Creation and implementation of the Compliance department

to help coordinate and promote compliance throughout the organization.

第99%

### of employees

received Code of Conduct and Anticorruption training.

More than



hours of training to our value chain

in ethics and anticorruption topics.

Collaboration with

11

THOMAS

# leading industry associations

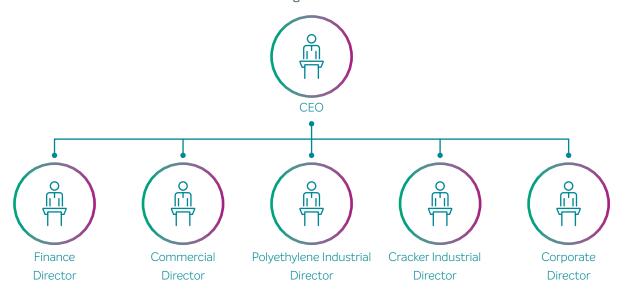
to promote and develop the plastics industry.

# Bu The pure compreser operation

Braskem Idesa has a Corporate Governance model that operates within a framework that promotes an ethical, transparent and respectful approach when dealing with its stakeholders. Our Board of Governors supervises three different committees: the Operations and Administrative Committee, which is tasked with overseeing the company's environmental operations, the Compliance Committee, which conducts the proper implementation of the Compliance and integrity system, internal controls and risk monitoring, and the Finance Committee, which decides on what investments need to be made in the plant, both in terms of social and environmental elements. The committees meet every three months to ensure on–going communication.

The Board of Directors is divided in the following manner:

**Corporate Governance** 



# **Business Ethics**

The purpose of the ethical standards in place at Braskem Idesa is to ensure compliance with national and international regulations. Furthermore, our presence on international markets means we must be transparent in our operations and respect all legal aspects.

Braskem Idesa has a number of procedures in place to coordinate and promote a culture of ethics and compliance within the organization and in its dealings with its stakeholders.

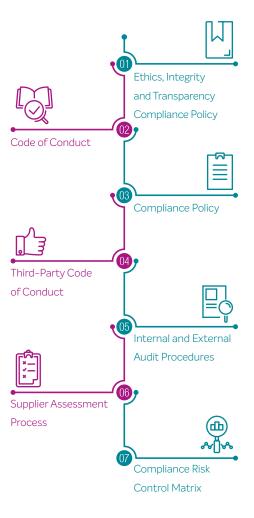
# **Code of Conduct**

The Code of Conduct encompasses the principles and values that promote ethical behavior within the organization. Its goal is to ensure both the company's employees and the rest of the value chain follow the same ethical principles and guidelines that govern our operations.

To ensure compliance with the ethical standards that must be followed while working at our organization, all our new employees receive induction training. In 2017, 99% of our employees received detailed information about the Code of Conduct, ensuring they are prepared to act in accordance with the guidelines it contains. Each employee signed the Code to demonstrate their commitment to following it.

To help consolidate our business ethics framework, all employees received an e-mail reminder regarding the importance of the guidelines outlined in the Code. This e-mail included a clause entitled "Statement of Acceptance and Commitment", in which each employee stated they had read and understood the document, confirming their commitment to reporting any compliance issues with the Code to their Area Leader, the compliance area or via the Ethics Hotline.

Business ethics, as well as transparency, compliance and integrity, are coordinated and assessed by means of a framework comprising the:



# **Reporting Mechanisms**

Braskem Idesa has consolidated its ethical management procedures through mechanisms that allow employees and third-parties to report any concerns they may have regarding the Code of Conduct. If there is any doubt or dilemma with regard to questions of ethics, they can use the following channels to report their concerns:



www.lineadeeticabraskemidesa.com

Leaving a message in the suggestion boxes located at Braskem Idesa's offices and communities located close to the plant.



Calling the Ethics Hotline. A toll-free number (01 800 681 6940) that is available 24 hours a day and 7 days a week.

In 2017, Braskem Idesa created the Compliance department, which is tasked with supervising regulatory and ethical compliance within the organization.

# **Compliance System**

Braskem Idesa's Compliance System aims to safeguard and consolidate day-to-day operations, mitigating any risks associated with the business. This system is based on 3 pillars and 10 compliance measures.



- 1. Compliance Governance
- 2. Policies and Other Guidelines
- 3. Risk and Control Assessment
- 4. Communication and Training
- 5. Third-Party Compliance
- 6. Involvement of Collective Efforts



- 7. Ethics Hotline Management
- 8. Risk and Control Monitoring



- Risk Resolution and Consolidation of Control Measures
- 10. Disciplinary Measures

The approach to compliance is a preventive one. Braskem Idesa focuses on the pillars of Ethics, Integrity and Transparency to govern its day-to-day activities. These 3 pillars encompass 10 principles that are deemed essential in ensuring that our day-to-day operations are both ethical and sustainable.

- **1.** Embodying a zero-tolerance policy and combatting corruption in all its forms, including extortion and bribery.
- **2.** Firmly and determinedly saying 'no' to business opportunities that are not in keeping with this commitment.
- **3.** Adopting ethic, upright and transparent principles when dealing with representatives from the public and private sectors.
- **4.** Never using cultural or common market conditions to justify improper actions.
- Guaranteeing transparency regarding information about Braskem Idesa, which should be accurate, wide-ranging, accessible and regularly communicated.
- **6.** Increasing awareness that any violation of the Code of Conduct, be it through action, omission or complacency, affects our society, contravenes the law, and destroys the image of Braskem Idesa.
- 7. Guaranteeing that Braskem Idesa and its entire value chain implements the Compliance System and ensuring that the latter always employs best practices.
- **8.** Contributing individually and collectively to undertaking any necessary changes to the markets in which there may be incitement to contravene the Code of Conduct.
- **9.** Incorporating into Employee Action Programs the assessment of their contribution to the Compliance System.
- **10.** Understanding that this commitment will help drive Survival, Growth and Continuity.

This system helps us clearly monitor the ethical principles on which Braskem Idesa was created.

In 2017, compliance tools and guidelines dealing with government relations, conflicts of interest, due diligence, and gifts and hospitality were implemented.



205-2

205-1

value chain

hours of training to our

in ethics and anticorruption topics.

# **Training**

At Braskem Idesa, we focus on ethics every single day, ensuring that we see it not only as one of our principles but also as a major part of our business culture. This is why our employees receive training, helping us communicate to them the anticorruption policies and procedures in place within the organization. In 2017, a total of 817 employees received training in this area.

Category	Total Employees	Percentage
2 <sup>1</sup> / <sub>3</sub> Leaders	89	100%
Administrative Personnel	381	100%
Operational Personnel	347	90%

The table shows the total and percentage of employees that were trained in ethics and anticorruption, as well as the total percentage to which the Code of Conduct was communicated.

Braskem Idesa also provided its value chain with training in ethics and anticorruption to meet and exceed the expectations of this group of stakeholders. We firmly believe that our suppliers and distributors are a key pillar of our organization.

# **Corruption Risk Assessment Methodology**

Braskem Idesa has implemented methodology to assess corporate risks associated with corruption and other areas dealing with ethics and transactional compliance.



#### PRELIMINARY STAGE

# • Compile internal, external

• Receive information from Areas (Transactional Risks).

and sector information.

• Organize a PP Planning Seminar (Brainstorming)

#### **INTERACTION WITH LEADERS**

- Organize working meetings to assess probability and impact.
- Identify and assess new risks.

#### **CONSOLIDATED RESULTS**

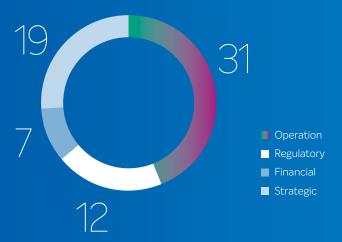
- Align and define priority risks.
- Define recommendations and plan of action for priority risks.

In 2017, 11 distributors and 36 suppliers formally received the Code of Conduct for Third Parties, in addition to the company's anticorruption policies.



In 2017, this methodology helped identify 104 risks, of which: 17 were not applicable, 69 were assessed, and 18 are still awaiting assessment.

### **Risks by Category**



Maintaining a preventive approach that focuses on warning of risks that could affect business sustainability is of key importance to Braskem Idesa. In terms of regulatory risks, 11 correspond to corruption. In light of this situation, the Compliance department and the company's Corporate Governance have taken the necessary measures to mitigate these risks by focusing on resolving each specific risk.

Thanks to our focus on compliance, transparency and ethics throughout our value chain, in 2017 Braskem Idesa was not involved in any case relating to corruption, nor did it receive fines for any violation or non-compliance with regulations and legislation applicable to its operations.



### **Challenges for 2018:**

- Digitalizing tools to increase the scope of compliance controls and their efficiency.
- Creating and implementing internal and external communication strategies dealing with conflicts of interest, due diligence, reporting mechanisms, and human rights, among others.

# **Chambers and Associations**

Braskem Idesa maintains strategic relations with industry chambers and associations to help drive free competition within the sector. In 2017, it consolidated existing and new relations with a number of chambers and associations. We took part in several events and programs in order to have a positive impact on the sector by collaborating with the following institutions:

- National Association of the Chemical Industry (ANIQ).
- National Association of the Plastics Industry (ANIPAC).
- National Chamber of the Manufacturing Industry – Veracruz Chapter (CANACINTRA VERACRUZ).
- Normalización y Certificación (NYCE).
- Industrial Association of the State of Veracruz (AIEVAC).

- Mexican Packaging Association (AMEE).
- Mexican Association of Communicators (AMCO).
- Latin American Petrochemical and Chemical Association (APLA).
- Mexican Association of Plastic Bag Manufacturers (INBOPLAST).
- Industrias de Tuberías de Ingeniería (ITIAC).
- International Chamber of Commerce (ICC)















This collaboration with more than 11 leading associations within the sector enables us to ensure a positive impact on our three sustainability principles throughout the value chain.



# Financial Performance













of which 78% are domestic and 22% are international suppliers.



**Financial Results and Investment** 

From its niche market, Braskem Idesa strives to have a positive impact on the Mexican economy and, more specifically, its stakeholders. With a total investment of USD \$5.2 billion, we operate a modern petrochemical plant that has brought global cutting-edge technology to Mexico.

The plant's production capacity is 1,050,000 tons of polyethylene, which is possible thanks to the ethane-based cracker and the two polyethylene plants at the complex.

	2016 (MXN \$ Billion)	2017 (MXN \$ Billion)
Direct Economic Value Generated	9,369	21,368
s←↓→s Economic Value Distributed	5,998	9,772
Economic Value Retained	3,379	11,596

Retained reached MXN \$11.596 billion.

The plant's financial results have improved thanks to consolidated sales during the first full year of operations. Total production stood at 923,550 tons of polyethylene, with significant sales at both a domestic and international level. Of the total sales in 2017, 56% were for the Mexican market, while the rest was exported, mainly to Europe, the USA and Asia.

Braskem Idesa has an impact on the local economy by hiring local leaders. Of Braskem Idesa's 35 directors, 66% were born in Mexico or have been naturalized. This category covers both directors and managers.

Our financial performance is governed and assessed by the guidelines stipulated in the:



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# **Market Presence**

Braskem Idesa consolidates its market presence by employing several strategies.

# **PICPLAST**

Competition and

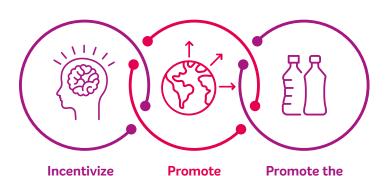
Innovation within

the Sector



This program, created by ABIPLAST (Brazilian Association of the Plastic Industry), is an incentive plan for the plastic chain. It has been adopted by our organization to drive development within the sector, promoting competition and growing innovation within the plastic manufacturing industry.

In 2017, we identified those clients who most need to optimize their processes, providing them with training in the area and helping to drive their development. 50 people from 31 companies from different states within Mexico took part in the program.



**Exports** 

# **Plastimagen**

For the four year we participated in Plastimagen Mexico, the most important international business forum for the plastic industry in Mexico and Latin America. Around 870 companies, representing more than 1,600 brands from more than 27 countries, welcomed 30,000 industry representatives. During the event, we showcased cutting-edge technology, products and solutions for the plastic industry. Braskem Idesa participated as a speaker giving lectures on the future of the industry and bioplastics.

# **Innovation and Technology**

**Advantages of** 

**Plastic** 

For more than 100 years, plastic has played a major role in day-to-day activities around the world, a situation that will continue for many years to come. As such, Braskem Idesa is investing in the innovation of production technologies, as well as in processes and end products.

To guarantee the sustainable evolution of our business, Braskem Idesa is supported by Braskem USA and Braskem Brazil in its search for solutions and new products and applications, in addition to research into perfecting our production methods.

Through application engineering, Braskem Idesa offers support to innovation centers and engineers in developing new technologies, in addition to coming up with solutions that add value to the global innovation strategy for polyethylene production, a program to which the company is fully committed.

# **Value Chain**

At Braskem Idesa, we see our suppliers as a fundamental element of our operations, which is why we ensure we are in constant communication with them, creating mutually beneficial relationships and offering the highest standards of quality.

We engage our suppliers as part of an equitable selection process, taking a range of factors into consideration. We guarantee a fair relationship, and they commit to complying with our ethical guidelines, which include fighting discrimination, corruption and all forms of forced and child labor.

On December 4, 2017 Braskem Idesa held the first Sustainable Development Workshop for its suppliers, with more than 50 representatives from our value chain taking part. Those present received training on the organization's sustainability strategy and the Carbon Disclosure Project (CDP).

To help drive greater shared value within our ecosystem, in addition to having a positive financial impact on the communities in which we operate, 78% of our suppliers are local, while 22% are from around the world.



of our suppliers

come from Coatzacoalcos, Veracruz.

# **Challenges for 2018:**

- Increase sales volumes within the Mexican market.
- Consolidate our presence in strategic markets, such as a Europe and the United States.





employees:

22% women and 78% men.





\$\frac{100\%}{12,143}

of directors received

Leader Development Program training.

community visits.

for members of the communities located close to the plant since it began operations.



co-ops

Social Performance



# **Employees**

Our employees are the reason for our success as a company. At Braskem Idesa, we recognize their potential and performance, and we are convinced that the reason why we achieve our results and goals is because of each and every employee and the role they play within the organization.

In 2017, we had 785 employees (171 women and 614 men), of whom 170 worked at our corporate offices in Mexico City and 615 at our petrochemical plant in Veracruz. All Braskem Idesa's employees have permanent and full-time contracts. 41.66% of our employees are covered by a collective bargaining agreement.

CO-CO-12	75	76
Women at Corporate Offices		
Women at Plant	88	95
	160	171
Total Women		
	85	94
Men at Corporate Offices		
	502	520
Men at Plant		
	590	614
Total Men		
Total Employees	750	785

2016

AAA

2017

		A A A A A A A A A A A A A A A A A A A			ST TOTAL	
	Total Male Employees	Total Male Employees Hired in 2017	Male Employee Recruitment Rate	Total Female Employees	Total Female Employees Hired in 2017	Female Employee Recruitment Rate
Below the age of 30	190	33	18.6	70	12	14.3
Between 30 and 50	348	32	19.2	101	11	15.5
Over the age of 50	76	2	307	0	0	0
Total	614	67	9.16	171	23	7.43

Our turnover rates, divided by age and gender, for 2017 are shown below:

	Total Male Employees	Total Male Employees Dismissed in 2017	Male Employee Turnover Rate	Total Female Employees	Total Female Employees Dismissed in 2017	Female Employee Turnover Rate
Below the age of 30	190	10	61.4	70	6	28.5
Between 30 and 50	348	19	32.3	101	8	21.4
Over the age of 50	76	13	47.2	0	1	171
Total	614	42	14.6	171	15	11.4

44) **45** 

# **Training**

In 2018, we gave 27,912.28 hours of training to a total of 785 employees. The average number of training hours for women was 23.9, while for men the average was 38.8. The total average training hours for our employees was 35.5, an increase of 12.5 hours compared to the average in 2016. The total amount invested in training during the year was MXN \$10 million.

In 2017, we offered **training to** 



# members in leadership positions

as part of the **Leader Development Program**, providing more than



#### hours

in executive issues.

		Po	
	Total	Average Hours	Total Investment
	Hours	per Employee	(MXN)
2016	17,029.5	23	\$2,621,315.86
2017	27,912.28	35.5	\$10,000,000

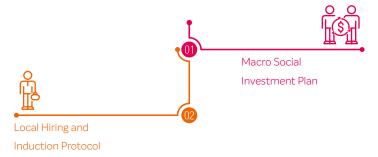
Training Category	Total Hours Men	Total Hours Women	Total Hours
Quality	1,240.5	689	1,929.5
Institutional Competencies	1,693	247	1,940
Technical Competencies	6,100.9	1,283.5	7,384.4
Skill Development	882	156	1,038
Languages	1,796	520	2,316
H&S and CSR Program	12,111.58	1,197.8	13,309.38
Total	23,823.98	4,093.3	27,917.28

# **Local Workforce**

Braskem Idesa sees social sustainability as a key element in the development of its neighboring communities. One of its strategies is to recruit human capital who live and belong to the outlying communities. Thanks to its Local Workforce Preference Policy, in 2017 some 50 people from 3 communities close to the chemical plant in Veracruz were hired:

Community	Women	Men	Total
Pollo de Oro	5	22	27
Lázaro Cárdenas	5	7	12
Nahualapa	5	6	11
Total	15	35	50

Workforce recruitment is governed and assessed by the guidelines stipulated in the:



Braskem Idesa

has recruited

since it began operations as part of its focus on

promoting local development.



# **Industrial Health and Safety**

At Braskem Idesa, we have programs in place to ensure the health and safety of our employees. The main regulatory tool we use to monitor the quality standards in this area is our SEMPRE Management System (Integrated Health, Safety and Environment System). It follows the principles outlined below:

- MEET client expectations.
- ENSURE cooperation and partnership with suppliers.
- **PROMOTE** personal development.
- **IMPLEMENT** preventive actions covering:
- People's health and quality of life.
- The safety of people, processes and facilities.
- Environmental aspects and the rational use of natural resources.
- Product and service quality.
- IMPROVE our processes, products and services, promoting innovation and complying with legal requirements and voluntary initiatives.
- MAINTAIN a constructive relationship with the commu-

	2016	2017
Temporary Lost-Time Accidents	3 accidents	0 accidents
Days Lost per Accident	281 days	0 days
Training Hours in Health and Safety Issues	7,293 hours	7,384 hours
Workplace Deaths	0 deaths	0 deaths
Drills	10 drills	11 drills

The Health and Safety Committee, which operates at the highest level of the organization, was composed by 15 men and 3 women in 2017. All employees who form part of a collective bargaining agreement have peace of mind knowing that Braskem Idesa has agreements with the Union that cover 100% of the issues in this area.



# **Challenges for 2018:**

- Implement the Internal Talent Development Program.
- Increase our employee benefits package.
- Promote gender equality and non-discrimination programs.

# of employees

are represented on the health and safety committees.

We have

brigades to answer to diverse situations:

intervention, first aids and evacuation.

In 2017, we implemented the **Comprehensive Health Program,** benefitting our employees through well-being and work-life balance campaigns.



# Community

At Braskem Idesa, we want to become a driving force for innovation and development within the communities in which we operate. We strive to forge significant and mutually beneficial relations with these groups through the liaison programs we have created. These programs allow the community to participate directly in the company, in addition to learning more about us and reaping the benefits of the development programs we coordinate.

Our community relations programs are coordinated by Braskem Idesa's Social Management System, comprising the following initiatives:

# 1. Stakeholder Engagement Plan

Community Visits

To provide information about our operations and to learn more about the Social investment and community enmembers of our neighboring communities, in 2017 we carried out a total of 2,143 community visits.

<u> </u>	<u> </u>
Total Visits 2016	Total Visits 2017
2,336	2,143

# • The Braskem Idesa Experience (Plant Tours)

At Braskem Idesa, we are proud of our facilities and the safety standards of our operations, which is why we open the doors of our plant to offer members of the community the opportunity to visit them and better understand our day-to-day operations. In 2017, we were visited by 142 people, including community groups, the authorities, schools, media outlets, business chambers and associations, and clients.

	2016	2017
6 6 6	580	142
Total Visitors		

# Open House Program

Braskem Idesa strives to ensure transparency in its operations and be a responsible neighbor to the outlying communities. The Open House Program offers members of the community the opportunity to learn more about the programs, projects and campaigns we coordinate in the area, while offering Braskem Idesa the opportunity to listen to any concerns or doubts surrounding plant safety, the environment, gender strategies, and the lifecycle of plastics.

	6 16 16		
	Total Participants from Neighboring Communities	Total Participants from Braskem Idesa	Cumulative Number of Participants
2016	800	30	2,700
2017	101	50	2,801





# 2. Complaints Procedure (MAQ)

MAQ is our system to monitor complaints and requests made by our stakeholders. It focuses on health & safety and environmental issues. This anonymous, free and accessible service establishes a follow-up process for each situation. Braskem Idesa leaves copies of these forms in common areas, such as schools or plazas, as well as at our offices, to facilitate access to them.

	Situations Monitored	Complaints	Requests
2016	87	46	41
2017	58	22	36

# 3. Participative Environmental Monitoring (MAP)

Through MAP, members of the community and other interested stakeholders can take part in the environmental monitoring procedures undertaken by Braskem Idesa. Members received health and safety training prior to participating to ensure a more critical assessment during the sampling process.

	600 800	61 161 16
	Number	Participants from the
	of MAP's	Community
2016	20	120
2017	11	78

# 4. Community Health and Safety Program

At Braskem Idesa, we are concerned about the health and safety of our neighboring communities. In 2017, we coordinated activities covering a range of needs in both areas.

# Community Health

• 27 medical visits were made to communities

Patients treated	Children vaccinated
473	134

• 11 meetings were organized with health authorities

- Health programs and campaigns were promoted:
  - · Water disinfection and bacteriological quality program
  - Well treatment workshop
  - Nutrition: Healthy Eating Plate
  - Larvathon
  - Fight against diabetes
  - · Alfombra Rosa campaign, fight against breast



413-1

413-1

413-1

# 5. Social Investment Plan

Braskem Idesa not only engages with neighboring communities and other stakeholders, but it also drives technological and economic development. In 2017, we continued supporting several local entrepreneurs through cooperatives. Braskem Idesa has helped these entrepreneurs through training and the identification of potential markets from each of its sectors to help facilitate the marketing of their products.

- Production of uniforms
- Chicken farms
- Cleaning products
- Recycling

54)

Fish farms

The most important issue we focused on in 2017 with the co-ops was the sustainability of their business. Using a traffic light system, we were able to determine the advances, commitment and sustainability of each cooperative, to help them make better decisions about resource allocation and their specific technology needs.

# 6. Corporate Volunteering

After our first full year of operations, we successfully implemented the first volunteering program as part of Braskem's Global Volunteering Scheme in Mexico.

Braskem Idesa organized a nationwide competition among its employees, asking them to submit social volunteering strategies. The winning team proposed its "Painting Smile" project, in collaboration with a charity called Tocando Puertas, to help people from Ixhuatán, Oaxaca, who were affected by the earthquake that hit Mexico on September 19, 2017.



productive projects

in 2017.

The total of number of people benefitted by these projects reached 51 (45 women and 6 men) in 2017. Through this community liaison program, we are helping empower female entrepreneurs from the community.

This project won 7th place in Braskem's global competition. The leaders and volunteers involved in the program were also interviewed to raise awareness among everyone within the organization about the program's achievements, in addition to driving our employees' interest in taking part in a volunteering program.

# 7. AVANZA Program

To improve the employment opportunities available to people from our neighboring communities, in addition to driving greater inclusion within the company's value chain, Braskem Idesa trained and facilitated the recruitment of local talent through its Local Hiring Policy. In 2017, we offered training for welders and metalworkers to 16 people from the community (13 men and 3 women). Of the 16 people who received training, 75% were hired to work within the organization.



# **Challenges for 2018:**

- Make the operations of our current productive projects more sustainable.
- Maintain a strong and prosperous relationship with the communities





© 17%

of water used was recycled.

### Reduction in

Scope 2 emissions of



More than

suppliers trained

in Carbon Disclosure Project (CDP).

species registered and protected

in the Complex's ENVIRONMENTAL MANAGEMENT UNIT.



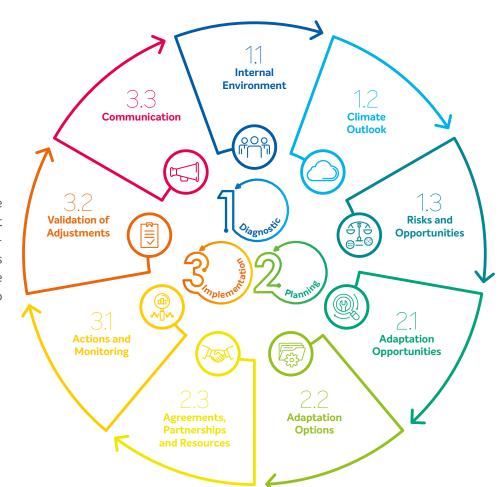
tons of plastic collected

for recycling as part of our 2017 Plasti-Market.



**Environmental Risk Matrix** 

The environmental risk matrix is a guide to help us identify the potential impact our operations have on climate change to implement preventive measures that cover any possible situation. The practical purpose of this matrix is to create and implement a plan of action.



Once the model had been implemented, we were able to identify high, medium and low-level risks regarding climate change. Braskem Idesa detected the following impacts:

- Increases in sea level
- Epidemics
- Severe cyclones
- Flooding
- Heatwaves
- Electrical energy generation
- Water shortages
- Torrential thunderstorms

# Water

At Braskem Idesa, we focus on creating strategies to help drive water preservation efforts. Since we began operations, we have undertaken two major programs in this area:

- Quarterly monitoring of groundwater and surface water within the communities.
- Water discharges that comply with the 2018 Coatzacoalcos River Declaration, ensuring the neighboring communities and ecosystems are not affected.

Braskem Idesa's environmental responsibility is governed and assessed by the guidelines stipulated in the:



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In 2017, we recycled

©17%

of the water we use

in a year.

	Total Water Use*	Recycled Water	Percentage of Recycled Water
2016	7,687,587 m <sup>3</sup>	769,279.87 m <sup>3</sup>	10%
	8,910,816.00 m <sup>3</sup>	1,522,868 m <sup>3</sup>	17%

\*All the water used by the organization comes from surface water sources, including wetlands, rivers, lakes and oceans.

The total volume of waste water discharge was 1,661,700.00 m<sup>3</sup>, in compliance with that stipulated in the Coatzacoalcos River Declaration.

# Climate Change and Energy

At Braskem Idesa, the energy we use comes entirely from our co-generation plant. Its production capacity allows us to generate 8.25% more energy than we actually use, which is the equivalent of powering 14,192 households. Total energy consumption in 2017 was 26,273,540 GJ.

In 2017, Braskem Idesa used 28,805.5870 MW of electricity and sold 21,437 MW of the electrical energy it generated. The energy intensity ratio was 13.23 GJ per ton of production, considering a production total of 250 tons of polyethylene and ethylene per hour.

This information has been calculated based on the standards stipulated in the Energy and Commodity Balance Methodology with emission factors published by the Ministry for the Environment and Natural Resources and by the Ministry for Energy (SENER).

Energy Use by Fuel Type	2017
Diesel	753,051 liters
Gasoline	227,179 liters
LP Gas	243,782 liters
Natural Gas	16,357,340.91 GJ

# **Emissions**

Our organization's carbon footprint in 2017 was 1,871,225.85  $\rm tCO_2e$ . After adjusting for our first year of operations, we recorded a significant reduction in Scope 2 emissions, with a 28.54% decrease compared to 2016.

	2016	2017
Total Emissions	1,532,967.61 tCO <sub>2</sub> e	1,854,462 tCO <sub>2</sub> e
Scope 1* (Fixed and mobile fuel combustion) Gases: CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFC.	1,474,227.13 tCO <sub>2</sub> e	1,837,696 tCO <sub>2</sub> e
Scope 2* (Company's use of electrical energy) Gases: CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFC.	58,740.48 tCO <sub>2</sub> e	16,764 tCO <sub>2</sub> e

\*The emission factors are those stipulated by SEMARNAT. To consolidate emissions, we employed an operational control approach based on the Energy and Commodify Balance Methodology.

Note: Derived from an audit process, an error was identified in the calculation of the 2017 total emissions (1,871,255 tCO<sub>2</sub>e), since the emissions of scope 2 (16,764 tCO<sub>2</sub>e) were considered within scope 1 (1,854,461 tCO<sub>2</sub>e) and, additionally, they were reported individually, so the correct data for 2017 is: Scope 1: 1,837,696.5468 tCO<sub>2</sub>e, Scope 2: 16,764.85 tCO<sub>2</sub>e Total emissions for 2017: 1,854,461.3984 tCO<sub>2</sub> equivalent.

The intensity ratio for emissions per ton of production is 0.65, taking into consideration Scope 1 and Scope 2 emissions. In terms of air emissions by gas type, the results recorded for 2017 are outlined below:

Emissions by Gas Type	Total in 2017 (kg)
NOX	602.36
SOX	0.9069
Volatile Organic Compounds (VOC's)	1.3670
Particulate Matter (PM)	13.2808



102–12, 306–2

304-3, 304-4

# Carbon Disclosure Project (CDP)

Since we began operations, our work with CDP, the international program that measures carbon emissions and risks from the supply chain via assessments undertaken by participating companies, has been on-going. Braskem Idesa has emphasized the importance of sustainability with its suppliers, in addition to ensuring product quality and lowering environmental impact.

As part of these efforts, on December 4<sup>th</sup>, 2017, the company held the first Sustainable Development workshop with Braskem Idesa suppliers. One of the major goals of this event was to help drive engagement between our supply chain and representatives from the Carbon Disclosure Project in Mexico to help resolve any doubts about the assessment process and Greenhouse Gas (GHG) reports.

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# Waste

In 2017, the waste produced by our operations totaled 6,338,061 tons.

(Ton)	Total Hazardous Waste	Total Non-Hazardous Waste	Total Waste
2016	17,129.175	17,828.325	34,957.50
	4,540,066	1,797,995	6,338,061

#### **Hazardous Waste**

**Non-Hazardous Waste** 

Waste Elimination Method	Recycling	Incineration	Landfill	Other	Total Hazardous Waste	
Total Waste	5,420	65,779	66,109	4,402,758	4,540,066	

# Biodiversity

# Ceratozamia Protection and Development Area (CPDA)

When operations at the petrochemical plant begin in 2016, we adopted a nearby zone, totaling more than 100 hectares in area, for voluntary biodiversity research and conservation efforts. Braskem Idesa shares this natural area with 347 species and is firmly committed to aiding in conservation and breeding programs. This area is located close to the community of El Chapo, Ixhuatlán del Sureste, Veracruz. In 2017, we implemented the following programs in this zone:



Ceratozamia Miqueliana rescue and conservation efforts:

We rescued and relocated 1,300 individual plants to help avoid their impending extinction.



Biodiversity monitoring:

Specialists monitored mammals, amphibians, reptiles and birds. To date, 415 species of flora and fauna have been identified, of which 8.4% of the identified species of flora and fauna are in some category of NOM-059-SEMARNAT-2010, of the identified reptile species 12 of them are within some risk category in the norm, just as amphibians that are also within some risk category of NOM-059-SEMARNAT-2010. Within the CPDA two species of *Cicas* are located, both are protected in some risk category within the list of the NOM-059-SEMARNAT-2010.

Soil conservation and reforestation:

Reforestation programs have been carried out for soil conservation in the CPDA, focusing on species native to the region.



# **Product Lifecycle**

Braskem Idesa is aware of the importance of estimating the environmental profile of its major products. The goal of the Lifecycle Analysis process is to describe this profile in order to fully understand the impact that the manufacturing of our products has on the environment.

Through studies undertaken in conjunction with ANIQ, we created a Lifecycle Analysis for two products: milk containers and containers for home care products.

Thanks to this process, we found that Braskem Idesa's environmental impact is 44% less than the national average, thereby helping to mitigate any repercussions on the environment.

### **Reduction in Carbon Footprint**



### **Reduction in Environmental Footprint: Transport**



# **Plasti-Market**

As part of our efforts to ensure that plastic waste is disposed of properly, in addition to promoting recycling, Braskem Idesa held its first Plasti-Market in Nanchital, Veracruz. In conjunction with the National Association of the Chemical Industry (ANIQ), we successfully collected more than 6 tons of plastic thanks to the participation of 321 families, who received basic foodstuffs in return. 50 volunteers from Braskem Idesa helped facilitate the exchange of products during the event.

#### More than



tons of plastic collected during the 2017 Plasti-Market

thanks to the support of 321 families from neighboring communities.

# **Plastivale**

This program drives collaboration to help support environmental conservation efforts with neighboring communities, specifically in terms of product lifecycle. In 2017, Braskem Idesa invited 40 representatives from 35 schools in Nanchital to its plant to provide them with training about how to use plastic, in addition to signing an environmental collaboration agreement between the company and the community. Through this plastic collection and recycling program at schools, we are promoting the proper use and disposal of plastic, helping improve the lifecycle of our products.

# **Challenges for 2018:**

- Implement the Energy and Water Efficiency Program.
- Optimize the use of natural resources.
- Implement more biodiversity conservation efforts.



Reduction in Environmental Footprint: Energy Efficiency

National Average Braskem Idesa

Braskem Idesa will work with 35 schools in Nanchital to promote environmental awareness regarding the use of plastic.

# Certifications and Awards





# **Socially Responsible Company Award (ESR)**

For the first year ever, we have received the ESR award from the Mexican Center for Philanthropy (CEMEFI). This award is presented to companies who are accredited by their stakeholders as being voluntarily and publicly committed to acting in a socially responsible manner.

This award will help Braskem Idesa to further its commitment to working on corporate social responsibility, community engagement, workplace quality of life, environmental, and corporate ethics initiatives.



# **SARI Certification**

For the third consecutive year, the National Association of the Chemical Industry (ANIQ) recognized our efforts in the area of Responsible Care. The SARI Certification (Responsible Care Management System) was created in Canada in 1985 by the chemical industry. It was then adopted by ANIQ in 1991 to drive competition and productivity through measures to ensure environmental conservation and the health and safety of the community and its employees.

Through this certification, we are committed to working on 34 best practices and more than 220 areas, focusing on:

- Process Safety
- Workplace Health and Safety
- Product Safety
- Transportation and Distribution
- Environmental Pollution Prevention and Control
- Community Protection
- Continuous Improvement

# **Responsible Care Award of Excellence**

In 2017, ANIQ presented us with an award for our efforts in implementing the Responsible Care Management System (SARI).

**Certification by the National Emissions Registry (GEIS)** 

# SUSTAINABLE GEALS DEVELOPMENT GEALS

At Braskem Idesa, we align our sustainability actions with the goals established by the United Nations in the Sustainable Development Goals.

Sustainable Development Goal	Description	Consultation
17 PARTNERSHIPS FOR THE GOALS	Strengthen the means of implementation and revitalize the global partnership for sustainable development.	35, 68-69 y 70-71
16 PEACE JUSTICE AND STRONG INSTITUTIONS	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.	29-34
8 DECENT WORK AND ECONOMIC GROWTH	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.	38-41, 44-46 y 48-49
13 CLINATE ACTION	Take urgent action to combat climate change and its impacts.	60-62
6 CLEAN WATER AND SANITATION	Ensure availability and sustainable management of water and sanitation for all.	59-60

Sustainable Development Goal	Description	Consultation
15 ON LAND	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.	63
11 SUSTAINABLE CITIES AND COMMUNITIES	Make cities and human settlements inclusive, safe, resilient and sustainable.	58-59 y 62-63
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Ensure sustainable consumption and production patterns.	64-65
1 NO POVERTY	End poverty in all its forms everywhere.	47 y 54-55
5 GENDER EQUALITY	Achieve gender equality and empower all women and girls.	44-45 y 54
3 GOOD HEALTH AND WELL-BEING	Ensure healthy lives and promote well-being for all at all ages.	48-49 y 52

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# Earth Charter



The Earth Charter is a declaration of ethical principles that form the basis for the creation of a fair, sustainable and peaceful global society. This initiative focuses on the transition to sustainable lifestyles and human development. It began as a United Nations program, concluding in the year 2000 with the creation of the Earth Charter Commission, an international body that promotes compliance with these principles.

At Braskem Idesa, we joined this program in 2017, implementing its recommendations into our day-to-day operations. We support the principles and global alliance it proposes to help create a fair, sustainable and peaceful world.

# The principles of this Charter are:



Respect and Care for the Community of Life



Ecological Integrity

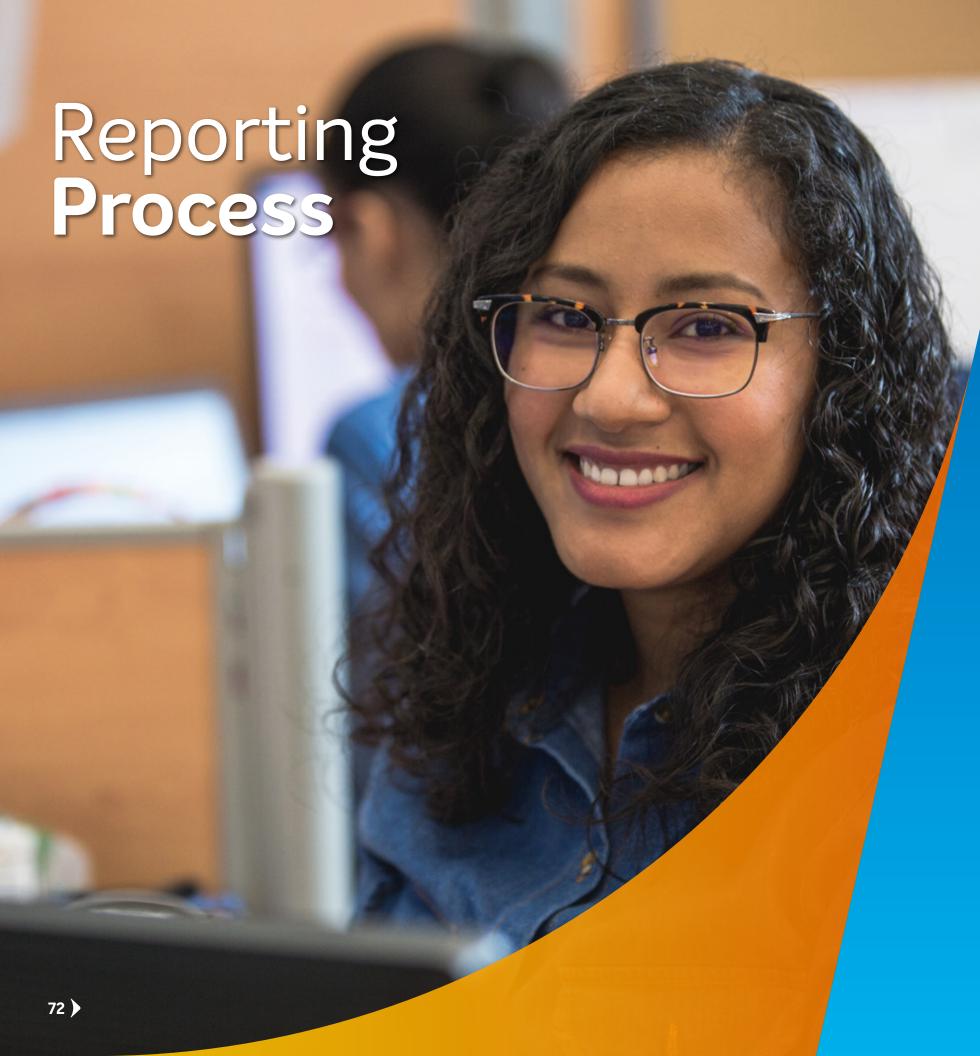


Social and Economic Justice



Democracy, Nonviolence, and Peace

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For the second consecutive year, Braskem Idesa has published its Sustainability Report, which encompasses the most significant milestones relating to sustainability at the company, in addition to providing its stakeholders with information about the company's major commitments and activities in 2017. This report covers both Braskem Idesa SAPI (Investment Promotion Corporation) and Braskem Idesa Servicios SA de CV, meaning that all Braskem Idesa's entities are encompassed in this report.

This document has been drafted using the Core Conformity option stipulated by the Global Reporting Initiative (GRI), covering the period from January 1st, 2017, to December 31st, 2017. The 2016 report was published in November 2017, with the reporting and publication of said reports occurring on an annual basis. For the first year, the report has been verified by an external party, and this method of verification will be employed over the coming years.

In terms of the information published in previous years, there has been no reformulation of the data used, meaning that the information published previously has not been modified. Furthermore, there are no significant changes to the scope and coverage found in previous years.



# **Materiality**

In 2016, an internal materiality analysis was undertaken in accordance with the Global Reporting Initiative (GRI) methodology. This analysis comprised three different stages:

### Identification:

Relevant issues were identified by analyzing the following aspects:

- The list of issues contained in the GRI G4 guide.
  - More than 10 companies within the petrochemical sector
  - 5 national and international financial institutions.
  - · Local and national media outlets.
  - · Complaints procedure.
  - Internal verification.

Based on this analysis, a list was drawn up of the more than 50 aspects that were analyzed.

#### **Prioritization:**

The issues were weighted and prioritized based on their relevance to the long-term sustainability of the business and the perception of the company's stakeholders. The material issues for the sector and for the construction and operations phases were compared, in addition to relevant issues for the authorities and stakeholders.

The relevance of issues for the organization was determined based on consultation with the Sustainability Department, business technology, and the experience of the area tasked with drafting the report.

### Validation:

The content was evaluated and verified by different areas involved in this report and by senior management, in addition to being externally verified.

Water 303-1, 303-3 y 306-1 306-2 Employees, 304-3 y 304-4 Biodiversity suppliers, associations, 305-1, 305-2, 305-4 y 305-7 clients, Transparency and Integrity 102-17 organizations Internal and institutions, Complaints Procedures community, Corruption 205-1, 205-2 y 205-3 authorities, and media outlets Workforce Post-Consumer 301-3 Health and Safety Financial Performance 201-1 y 202-2

Once the content of the report was established, we applied the principles for defining report quality:



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# GRI Index

Standard	Content	Page Numbers	Omission
		Essential Indicators	
GRI 101: FOUNDATION 2016			
_	102-1	10	
	102-2	10-11	
	102-3	Mexico City Corporate Offices and the Petrochemical Complex in Veracruz.	
	102-4	11	
	102-5	10 y 73	
	102-6	11-12	
	102-7	16 y 44	
GRI 102:		44	
GENERAL DISCLOSURES, 2016	102-8	The information is collected through the data systems operated by the P&O area within the organization.	
	102-9	41	
_	102-10	73	
_	102-11	58	
_	102-12	62, 68-70	
_	102-13	35	
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_	102-55	76-81	
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### **Material Issues**

Social Investment in Communities			
GRI 103:	103-1	75	
MANAGEMENT	103-2	50	
APPROACH, 2016	103-3	50	
CDI 442	413-1	50-55 y 58	
GRI 413: - LOCAL COMMUNITIES, 2016	413-2	Braskem Idesa has no operations with negative significant-real or potential impacts.	

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Standard

Content

		Climate Change and Energy
GRI 103: _	103-1	75
MANAGEMENT	103-2	59-60
APPROACH, 2016	103-3	60
	302-1	60
		60 The calculation covers the electrical con-
GRI 302: ENERGY, 2016	302-3	sumption within the organization and considers the following types of energy: residual fuel of the cracking process (Tail Gas, natural gas, generated electricity (cogeneration), consumed electricity of the network (CFE) and high, medium and low vapor levels.
		Water
GRI 103: _	103-1	75
GRI 303:  GRI 303: WATER, 2016	103-2	59
	103-3	59-60
	303-1	60
	303-3	60
GRI 306: EFFLUENTS AND WASTE, 2016	306-1	60
		Waste
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	103-3	62
GRI 306: EFFLUENTS AND WASTE, 2016	306-2	62

Page Numbers

Omission

Standard	Content	Page Numbers	Omission		
Biodiversity					
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GRI 103:	103-1	75			
MANAGEMENT	103-2	29			
APPROACH, 2016	103-3	29-34			
GRI 102: GENERAL DISCLOSURES, 2016	102-17	30			
GRI 103:	103-1	75			
- CIVI 100.					
MANAGEMENT APPROACH, 2016	103-2	29 y 50			

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Standard	Content	Page Numbers	Omission
GRI 419: SOCIOECONOMIC COMPLIANCE, 2016	419-1	34 Braskem Idesa has no sanctions or fines for non-compliance of norms on the subject.	
		Corruption	
GRI 103:	103-1	75	
MANAGEMENT	103-2	29	
APPROACH, 2016	103-3	29-34	
	205-1	33	
GRI 205: ANTICORRUPTION, 2016	205-2	29 y 32	The organization does not have the breakdown by region.
	205-3	In 2017 there was no confirmed cases of corruption.	
		Workforce	
GRI 103:	103-1	75	
MANAGEMENT	103-2	47	
APPROACH, 2016	103-3	47-55	
GRI 401: EMPLOYMENT, 2016	401-1	47	
		Post Consumption	
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GRI 301: PRODUCTS AND SERVICES, 2016	301-3	64	

Standard	Content	Page Numbers	Omission	
	Health and Security			
GRI 103:	103-1	75		
MANAGEMENT	103-2	48		
APPROACH, 2016	103-3	48-49		
	403-1	49		
GRI 403: OCCUPATIONAL HEALTH AND SAFETY, 2016	403-3	No employee participates in high- incidence or high-sickness-risk activities.		
	403-4	49		
		Economic Performance		
GRI 103:	103-1	75		
MANAGEMENT	103-2	39		
APPROACH, 2016	103-3	38-41		
	201-1	39		
		39		
GRI 201: ECONOMIC PERFORMANCE, 2016	202-2	The local community consists of the country of operation, Mexico. The location of the significant operations are the Braskem Idesa Complex in Veracruz and the Corporate office in Mexico City.		

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# Letter of Verification



### **Independent Verification Letter of** 2017 Braskem Idesa Sustainability Report "Innovation and Technology for Sustainable Development"

To the Board of Directors of Braskem Idesa S.A.P.I. y Braskem Idesa Servicios S.A. de C.V.:

We would like to inform you that Redes Sociales has completed its independent and impartial verification of the contents published in the 2017 Sustainability Report "Innovation and technology for sustainable development" of Braskem Idesa.

#### Scope

We have undertaken a limited verification of the indicators and data contained in this document. A methodological validation of the indicators listed in the GRI contents index of this document was carried out, in accordance with the essential option of the Global Reporting Initiative Standards.

An independent review was executed based on the materiality of the company to the following indicators:

102-17	304-3	305-4	403-1
201-1	304-4	305-7	413-1
205-1	305-1	306-2	413-2
303-3	305-2	401-1	419-1

Our verification process covered the following activities:

- Review of collection and control processes of published information.
- Verification of qualitative and quantitative information through visual and documentary evidence of the aforementioned indicators.
- The congruence and consistency of the published data was corroborated.
- · Analysis of past reports.
- · Consultation of public information disseminated in electronic media

#### Responsabilities

Braskem Idesa is responsible for the elaboration and the data published in the Sustainability Report, 2017. Our mission is to express an objective and accurate conclusion about the quality of the information reviewed, based on the interviews and the consultation of visual and documentary evidences. Our work is based on the Ethical principles of independence of ISAE 3000; and The external assurance of the GRI sustainability reports.



#### Conclusions

During the limited verification process, we did not find any element that leads us to conclude that the Principles for the preparation of GRI reports were not correctly applied, so there is no problem in stating that the 2017 Sustainability Report of Braskem Idesa was made in accordance with the GRI Standards.

We believe that the evidence obtained is adequate and there is no factor that leads us to infer that the information presented contains errors and that it does not comply with the principles of traceability, accuracy, clarity and reliability.

#### Recommendations

We develop a report for the exclusive use of the client outlining the opportunities for improvement identified for future reports.

#### Redes Sociales Declaration of Independence and Competence

Redes Sociales' employees have the skills required to verify compliance with the standards used to prepare Sustainability Reports. As such, they are capable of expressing a professional opinion of non-financial reports, complying with the principles of independence, integrity, objectivity, professional competence and diligence, confidentiality, and professional behavior. Our letter of verification should not be deemed to be an audit report, therefore, Redes Sociales assumes no liability for any management processes and internal control systems that are used to compile the information contained in this report. This Letter of Verification has been issued on October, 30<sup>th</sup> two thousand and eighteen, and it is deemed to be valid if no substantial amendments have been made to the 2017 Braskem Idesa Sustainability Report.

Alma Paulina Garduño Arellano

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October 30, 2018

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2017 Sustainability report

Braskem Idesa

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