



**MANAGEMENT  
REPORT  
BRASKEM 2019**

## MANAGEMENT REPORT

## BRASKEM 2019

The Management of Braskem S.A. ("Braskem") submits for your consideration this Management Report and corresponding Financial Statements, accompanied by the opinions of the Independent Auditors and the Audit Board, for the fiscal year ended December 31, 2019.

**1. Message from Management**

In 2019, the world economy slowed to its slowest pace since the financial crisis of 2008-09, to GDP growth of 2.9%, according to the International Monetary Fund (IMF). During the year, the impact from the trade war between the United States and China; the slowdown in the Chinese economy; the contraction in Europe's automotive industry, especially in Germany; the uncertainties associated with Brexit; and the political instability in key emerging markets, such as Brazil and Mexico, adversely affected investment and consumer goods demand, leading to slower growth in the industrial sector and in international trade.

In this scenario, the growth in global demand for chemicals and thermoplastic resins in the year was below the initial expectations of petrochemical industry players and consulting firms in 2019. Combined with this weaker demand, new shale gas-based integrated polyethylene capacities in the United States and new refineries in Asia expanded the global supply of polyolefins and chemicals, pressuring the international spreads of these products. The exception is the PP market in the United States, which still presents healthy spreads supported by U.S. economic growth and the high supply of the material.

With regard to the geological phenomenon in Maceió, Alagoas, Braskem reaffirmed its commitment to the safety of the people and communities located near its sites by: (i) permanently shutting down its salt mining operations in Maceió and creating protective areas around certain wells, which involves relocating people, vacating properties and adopting additional monitoring activities; (ii) signing an agreement with the Alagoas State Public Defender's Office (DPE), the Federal Prosecution Office (MPF), the Federal Public Defender's Office (DPU) and the Alagoas State Prosecution Office (MPE) for supporting the relocation and compensation of residents in the risk areas demarcated based on their criticality determined in accordance with the technical criteria of the Civil Defense, under the Financial Compensation and Support for Relocation Program; and (iii) signing an agreement with the Labor Prosecution Office (MPT) for implementing the Program to Recover Business and Promote Education for residents and workers in the same four districts. Accordingly, and based on its best knowledge, the Company recognized a provision in its income Statements for the fourth quarter in the aggregate amount of approximately R\$3.4 billion for the implementation of these actions, which will be disbursed over the coming years and could change in accordance with developments in the matter.

To better serve the families covered by the Financial Compensation and Support for Relocation Program, the Company created a Residents Center staffed by a Braskem team and outsourced exporters, which features the following: (i) bank service posts; (ii) moving services; (iii) storage services; (iv) pet accommodations; (v) psychological assistance; (vi) space for families to meet with their lawyers; (vii) registration post of the Municipal Social Assistance Secretary; and (viii) truck offering itinerant public defender services.

The Company continues to collaborate with the authorities by contracting specialists and academic institutions in the fields of geology and seismology, in Brazil and abroad, to identify the causes of the geological phenomenon. The studies are still ongoing, with the findings expected to be finalized in 2020.

Despite the challenging scenario for the petrochemical industry and the developments in geological phenomenon in Maceió, the business strategy adopted by the Company, which since 2010 continues to be implemented with a focus on diversification of geographies and feedstocks, proved fundamental in enabling the Company to deliver in the year net cash generation of R\$3 billion, supported by: (i) working capital management actions to optimize inventories and accounts receivables, as well as an increase in the supply of imported naphtha, combined with the impact from the lower prices of finished goods and raw materials;

(ii) the monetization of R\$281 million of the PIS/COFINS balance (exclusion from the ICMS tax base)<sup>1</sup>; (iii) building client loyalty through long-term contracts with the postponement of funds for future sales of chemicals and polyolefins; (iv) reducing payments of income tax and social contribution (IR/CSLL); and (v) greater discipline in the selection of operating and strategic investments. These effects offset the decline of 46% in recurring EBITDA in Brazilian real caused primarily by the lower spreads in the international market, especially for polyethylene. In this scenario, return on free cash flow was 13%.

In the year, the Company's commitment to its financial solidity through greater discipline in capital allocation was reflected in the reduced investments in strategic (US\$ 229 million) and operational (US\$ 470 million) projects, which amounted to US\$ 187 million, or 21% less than the amount projected at the start of the year, and surpassing the reduction target of US\$100 million established at the end of the first half of the year. In addition, the Company issued: (i) US\$2.25 billion in bonds in the international market, with US\$1.5 billion due in ten years and US\$750 million in 30 years, representing Braskem's largest issue ever; and (ii) R\$550 million in promissory notes due in up to five years. The proceeds were used mainly to settle shorter-dated, higher-cost liabilities, including the bonds due in 2020 and 2021, and to partially settle the bonds due in 2022 and 2023.

Corporate leverage, as measured by the ratio of net debt to EBITDA in U.S. dollar, ended 2019 at 4.71x<sup>2</sup> based on recurring EBITDA<sup>3</sup> and excluding the cash of R\$1.7 billion allocated to the Financial Compensation and Support for Relocation Program.

In the context of the Company's strategy, the highlights in the quarter were: (i) the progress made on construction of the new polypropylene plant in the United States, which reached 89.7% completion; (ii) the imports of ethane by Braskem Idesa to diversify its feedstock supply sources in order to increase the capacity utilization rate of its petrochemical complex; (iii) the energy efficiency project at the cracker in the ABC region of Greater São Paulo in partnership with Siemens reached completion of approximately 11%; (iv) the completion of 66% of the investments to improve the safety and reliability of the power distribution system at the plant in Neal, West Virginia, in the United States; and (v) the continued progress on the Company's digital transformation with the implementation of a series of digital tools to transform strategic parts of its operations and processes.

In its commitment to the environment, social responsibility and governance/compliance, the Company's main deliverables in the year were: (i) Braskem figured on the 'A' list of the Water and Climate themes of the Carbon Disclosure Program (CDP) for fiscal year 2018, consolidating its position as a reference in the management of climate risks and water resources; (ii) expansion of the brand I'm green™, resulting in the sale of 1,651 tons of recycled resin (PCR) and 699 tons of recycled hexane in 2019; and (iii) record participation of 26% of the Company's team members in the Global Volunteer Program, which benefitted 94,000 people.

In march of 2020, the Federal Prosecution Office's announced the conclusion of monitoring at Braskem established in the Leniency Agreement signed by Braskem and MPF on December 14, 2016. The Federal Prosecution Office's decision was based on a report from the independent monitors, who certified that the Company implemented all the recommendations for structuring and executing its compliance program. During the independent monitoring process, the Company implemented controls designed to comply with anti-corruption laws and mechanisms to ensure the adequacy and effectiveness of integrity practices,

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<sup>1</sup> In 2019, the Company recognized revenue of R\$2,049 million related to PIS and COFINS tax credits overpaid in prior fiscal years and monetized R\$281 million of the balance for said credits through the payment of other federal taxes. As a result, the recoverable balance of these credits at year-end was R\$2,351 million, of which R\$783 million should be monetized by the Company during 2020, as registered in its current assets. The Company has lawsuits of the same kind filed by incorporated companies that are still pending a final and unappealable decision. The oldest period of these lawsuits is retroactive to February 1999, for which the calculations have not been finalized.

<sup>2</sup> Excludes the net debt and EBITDA of Braskem Idesa.

<sup>3</sup> EBITDA (+) expenses with the geological event in Alagoas (-) PIS/COFINS tax credits (exclusion of ICMS tax base)

preventing the occurrence of new wrongdoings and giving utmost priority to ethics and transparency in conducting its business, all of which were evaluated in detail and tested by the monitors.

On the subject of its team members, during the year, Braskem made progress in various programs to foster their integration, development and qualification, as well as in the preparation and development of leaders. The topics of diversity and inclusion were considered in all project fronts, and investments in digital mindset<sup>4</sup> were made in all deliveries on the People & Organization front.

Acknowledgements:

The Management once again takes this opportunity to thank its Shareholders for the trust they place in Braskem, its Clients, who are fundamental partners in our aspiration to continue seeking solutions in chemistry and plastics that improve people lives, and its Team Members, Partners and Suppliers, for their dedication and competence, who are critical to ensuring our accomplishments and results as we continue to expand globally.

## 2. Outlook

The IMF has initially called for the world economy to post moderate improvement in 2020. However, the spread of the coronavirus (COVID-19) has been impacting the global economy, creating uncertainty in the short-term.

Despite this context, the Company will continue to focus on creating value with: (i) the startup of the new PP plant in the United States, which will expand Braskem’s current production in the United States by 30%; (ii) the conclusion of the production ramp-up of the petrochemical complex using ethane imported from the United States; (iii) the restarting of operations at the chlor-alkali and dichloroethane plants in Alagoas using outsourced salt, resuming its integration in the vinyls business; (iv) growing sales volume in Brazil by expanding in the local market; (v) streamlining fixed costs by capturing synergy gains from the new organizational structure; and (vi) maintaining disciplined capital allocation to ensure cash generation.

With regard to the Company’s commitment to the transition to a Circular Economy, the priority actions will focus on developing the plastic’s chain, implementing projects that leverage growth in global production and sales volumes of recycled resins and chemicals and support the development of chemical recycling technology.

The Company’s other strategic actions for the year will be concentrated in the following areas:

- Productivity and competitiveness: (i) focus on caring for the health of team members and partners, local communities and the environment; and (iii) renewing its naphtha and ethane feedstock supply agreements with Petrobras to ensure the competitiveness of the operations of its assets in Brazil.
- Diversification of geographies and feedstocks: advance in assessing a solution to increase the capacity of ethane imports by Braskem Idesa in Mexico.
- People, innovation, governance and reputation: (i) consolidating the new organizational structure; (ii) implementing the new practices of the people management model; (iii) obtaining the closure certification from the Independent Monitorship program; (iv) strengthening the Company’s image and reputational attributes; and (v) implementing in Alagoas the Financial Compensation and Support for Relocation Program and the Program to Recover Business and Promote Education.

## 3. Performance

- **OPERATING PERFORMANCE IN 2019 BY REGION:**

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<sup>4</sup> Refers to the support for off-site training programs, such as: webinar, online course on the Company’s digital platform and distance-learning.

**BRAZIL**

In the year, the operations were affected by the downcycle in the petrochemical industry, by the suspension of operations at the chlor-alkali and dichloroethane plants in Alagoas and by the stronger resin demand in the local market.

BRAZIL	2019 (A)	2018 (B)	Chg. (A)/(B)
<b>Operating Overview (ton)</b>			
<b>Production</b>			
Ethylene	3,185,203	3,399,610	-6%
Utilization Rate	85%	91%	-6 p.p.
Propylene	1,310,028	1,324,358	-1%
<b>Resins demand in the Brazilian market</b>	<b>5,291,492</b>	<b>5,191,616</b>	<b>2%</b>
<b>Sales - Brazilian Market</b>			
Resins	3,423,845	3,421,797	0%
Resins Market Share	64%	66%	-2 p.p.
Main Chemicals*	2,812,012	2,872,474	-2%
<b>Exports</b>			
Resins	1,407,706	1,302,858	8%
Main Chemicals*	627,873	570,741	10%
<b>Financial Overview (US\$ million)**</b>			
<b>Net Revenue</b>	<b>9,843</b>	<b>11,525</b>	<b>-15%</b>
COGS	(8,780)	(9,530)	-8%
<b>Gross Profit</b>	<b>1,063</b>	<b>1,996</b>	<b>-47%</b>
<b>Gross Margin</b>	<b>11%</b>	<b>17%</b>	<b>-6 p.p.</b>
SG&A	(599)	(698)	-14%
Other Operating Income (Expenses)	(1,016)	96	-1155%
<b>EBITDA</b>	<b>821</b>	<b>1,905</b>	<b>-57%</b>
<b>EBITDA Margin</b>	<b>8%</b>	<b>17%</b>	<b>-9 p.p.</b>
Net Revenue (R\$ million)	38,781	42,205	-8%
EBITDA (R\$ million)	3,205	6,985	-54%

\*Ethylene, propylene, butadiene, cumene, gasoline, benzene, paraxylene are considered main chemicals due to their representativeness in this segment. In 2019, they accounted for approximately 77% of the segment's net revenue

\*\*Does not consider the expenses related to the geological phenomenon of Alagoas

**Petrochemical spreads**

Brazil International References* (US\$/ton)	2019 (A)	2018 (B)	Chg. (A)/(B)
<b>Prices</b>			
Brent (US\$/bbl)	65	71	-9%
Naphtha	505	602	-16%
Ethane	160	243	-34%
Propane	279	458	-39%
Resins (i)	917	1,160	-21%
PE US	860	1,191	-28%
PP Asia	1,034	1,206	-14%
PVC Asia	862	912	-6%
Main Chemicals (ii)	828	1,015	-18%
Caustic Soda US	302	574	-47%
EDC US	285	238	20%
<b>Spreads</b>			
Resins (i)	427	579	-26%
PE US (iii)	405	633	-36%
PP Asia	529	605	-13%
PVC Asia (iv)	276	299	-8%
Main Chemicals (v)	323	413	-22%

\*Source: External consulting (Spot Price)

(i) PE US (54%), PP Asia (33%) e PVC Asia (13%)

(ii) Ethylene (20%), Butadiene (10%), Propylene (10%), Cumene (5%), Benzene (20%), Paraxylene (5%), Gasoline (25%) and Toluene (5%)

(iii) PE US - Naphtha (82%)+ PE US - 0,5\*Ethane - 0,5\*Propane (18%)

(iv) PVC Asia -0,23\*3\*naphtha ARA - 0,832\*EDC US

(v) Main Chemicals - Naphtha

- **PE Spread<sup>5</sup>**: narrowed in 2019 explained by the startup of new shale gas-based integrated PE crackers in the United States, combined with the weaker demand caused by uncertainties in the trade

<sup>5</sup> (U.S. PE – ARA naphtha price)\*82%+(U.S. PE price – 50% U.S. ethane price – 50% U.S. propane price)\*18%.

war between United the States and China, Brexit, regulatory pressure on single-use plastics, among other factors, which adversely affected consumer confidence and the global industry.

- **PP Spread<sup>6</sup>:** narrowed in the year due to weaker demand, especially in the automotive industry, which was affected by the expiration of tax incentives for new car purchases in China and by new standards for greenhouse gas emissions in China and Europe, combined with new PP capacities coming online in Asia.
- **PVC Spread<sup>7</sup>:** also narrowed in the year, explained by the weaker demand for PVC in Asia due to the U.S.-China trade war and India's anti-dumping policy, as well as the stronger demand for EDC in the market, including from Braskem, and the weaker demand for caustic soda in the aluminum and pulp and paper industries.
- **Spread of main petrochemicals<sup>8</sup>:** narrowed in the year, explained by the startup of ethane-based crackers and by the good operating performance of the propane dehydrogenation plants, both in the United States, and by the startup of new refineries in Asia, combined with the weaker demand, especially in the automotive industry.

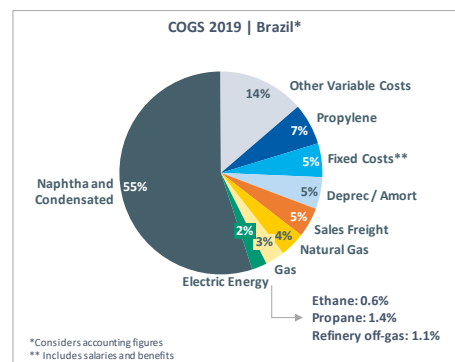
**Demand for thermoplastic resins (PE+PP+PVC):** higher in relation to 2018, driven by the cuts in Brazil's policy interest rate and the improvement in business and consumer confidence, which leveraged primarily the agribusiness and food industries and the start of a recovery in construction industry.

**Average utilization rate at petrochemical complexes:** lower than in 2018 due to: (i) the lower supply of feedstock at the crackers in Bahia due to the shutdown of the chlor-alkali and dichloroethane (EDC) plants in Alagoas state; (ii) the scheduled shutdown of one of the production lines of the cracker in Bahia in 4Q19; (iii) the logistics problems involving inbound feedstock at the cracker in Rio Grande do Sul; and (iv) the lower utilization rate at the crackers due to lower marginal profitability of exported resins.

**Sales volume in the Brazilian market:** Resin sales volume was stable in relation to 2018. Meanwhile, sales volume of the main chemicals was lower, influenced by the lower product availability in the period and the reallocation of sales to the Brazilian market to the export market.

**Export volume:** resin export volumes were higher, led by PP exports, reflecting the higher market share in South America. Exports of the main chemicals were higher, led by ethylene, propylene and BTX, reflecting the lower sales volume in the Brazilian market.

**COGS:** Down in relation to 2018, due to the declines in international price references of the main feedstocks, which were partially offset by the higher total sales volume of resins. The lower naphtha prices are explained by the lower oil prices, as well as by the higher use of natural gas liquids in the flex crackers in the United States. Meanwhile, the lower prices of ethane and propane in the United States are explained by the startup of new gas fractionators and of new gas pipelines in the region, as well as by delays in the startup of ethane-based crackers.



In 2019, COGS was positively impacted by the PIS/COFINS tax credit on feedstock purchases (REIQ) in the amount of US\$226 million (R\$893 million) and by the credit under the Reintegra Program of US\$2.3 million (R\$9.2 million).

<sup>6</sup> Asia PP price – ARA naphtha price.

<sup>7</sup> Asia PVC price - (0.23\*3\* ARA naphtha price) - (U.S. EDC price\*0.832).

<sup>8</sup> Ethylene (20%), Butadiene (10%), Propylene (10%), Cumene (5%), Benzene (20%), Paraxylene (5%), Gasoline (25%) and Toluene (5%) – ARA naphtha price

**EBITDA:** was US\$821 million (R\$3,205 million), down 57% from 2018, and accounting for 55% of the Company's consolidated EBITDA.

## **ALAGOAS**

### *Geological phenomenon*

Braskem operated a sodium chloride mine located in the Brazilian state of Alagoas for mining salt, the raw material required for integrated production in the Company's vinyls chain.

Allegations were made recently that the ground in certain districts of Maceió, located near and above the area of the Company's salt mines, had subsided due to the Company's activities in the mine, supposedly affecting public and private properties in the region. The more relevant possible risks alleged include subsidence due to soil instability and sinkholes, i.e., an abrupt depression on the surface that can cause personal injury and damage to the surrounding properties.

On May 8, 2019, the Company took cognizance of Report no. 1, which was drafted by the Mining Resources Research Agency (CPRM), and agency of Brazil's Mines & Energy Ministry, on the geological events that occurred in the city of Maceió. From its standpoint, the report indicated the occurrence of: (i) destabilization of the caves as a result of the extraction of sodium chloride, which created a dynamic situation that reactivated pre-existing geological structures and deformations in the districts of Pinheiro, Mutange and Bebedouro; and (ii) instability in the district of Pinheiro, which was aggravated by erosive effects caused by higher infiltration of stormwater in preexisting fractures in extremely erosive soil, and accelerated by the lack of a stormwater runoff drainage system and adequate basic sanitations, among other factors.

In connection with the release of Report no. 1 of the CPRM, the Company concentrated its efforts during the year on:

#### *1. Collaborating with the authorities to identify the causes of the geological phenomenon*

In view of these allegations, the Company conducted and has been conducting, with the support of independent institutions and nationally and internationally renowned specialists, a series of studies focusing on: (i) identifying the causes of the geological phenomenon; and (ii) analyzing the situation of the wells. The studies have been shared with the National Mining Agency (ANM), with which the Company has been maintaining constant dialogue.

In this sense, in September and October, the Company released studies: (i) from the University of Houston (USA), which indicated inconsistencies in the methodology adopted by the CPRM in its analysis of the geological phenomena in Maceió; (ii) from the University of São Paulo (Brazil) and researchers at Imperial College of London (UK), which raised concerns about the infiltration caused by the drainage and sanitation problems in the Pinheiro district; and (iii) the Engineering Research Center linked to the Federal University of Rio de Janeiro (UFRJ), which disagreed with the analysis of fractures conducted by the CPRM in the districts of Maceió.

To date, no relationship has been established between the geological phenomena that occurred in Maceió and Braskem's salt mining operations. The studies are still ongoing, with the presentation of findings expected in 2020.

#### *2. Guaranteeing service of Brazil's vinyls market*

In May, due to developments arising from the release of Report no. 1 of the CPRM, Braskem began, in accordance with the applicable safety standards, the process to shut down its salt mining operations and consequently shut down the chlor-alkali and dichloroethane (EDC) plants located in the Pontal da Barra district of Maceió.

Subsequently, the Company adopted temporarily a non-integrated model for its vinyls business and began to import caustic soda to supply the Brazilian market using its logistics and terminal structure

along the Brazilian coastline, EDC to continue operating its PVC plants in Alagoas and Bahia, and sea salt to supply its Chlor-alkali plant in Bahia.

And, in this scenario, the PVC plants operated at a capacity utilization rate of 65%, 10 p.p. lower than in 2018, with total EDC import volume of 280 kton. Also in this scenario, the Company's PVC sales volume in the Brazilian market amounted to 491 kton, 0.2% lower than in 2018.

In the case of caustic soda sales, the Company supplied the Brazilian market with 243 kton of caustic soda, of which 134 kton was imported.

Seeking to resume its chlor-alkali operations, in 2019, the Company launched a project to modify the feedstock base of the chlor-alkali plants through the sourcing of sea salt. The product will be stocked, dissolved in water to make brine and then treated and sent for processing. The estimated cost of the project is approximately R\$60 million, of which R\$21.2 million already was disbursed in 2019.

### *3. Collaborating with authorities to ensure the safety of people and the environment*

Operating in the region since 1975, Braskem has been reaffirming its commitment to safety, sustainability and responsible business activities since the occurrence of the geological phenomenon in the region. Since April 2019, through the Cooperation Agreements signed with the government, the Company has been adopting measures to support the community in the region, which include: (i) pavement and drainage works: to recover over 20,000 m<sup>2</sup> of streets and avenues and to prevent the reappearance of cracks and holes; (ii) structural inspections of buildings: to contribute to the investigations of the causes of the cracks in the buildings and to analyze the level of structural impairment; (iii) installation of meeting point signs in case of an emergency; (iv) donation of equipment to the civil defense of Maceió to improve public safety during preventive measures and potential emergency actions; (v) ground monitoring using GPS to identify small movements in the ground; (vi) installation of a meteorological station to forecast weather variations, including the level of precipitation; (vii) inspection of the storm runoff drainage system to enable the municipal government of Maceió to carry out interventions with greater accuracy, speed and safety; and (viii) structural actions for building inspections and filling in doors and windows.

In November 2019, the Company presented to the National Mining Agency ("ANM") measures for definitively shutting down its salt mining activities in Maceió, with the closure of its wells. The proposal included the creation of a protection area around certain wells, which will entail relocating people, vacating properties and adopting additional monitoring measures. These measures are based on a study conducted by the Institute of Geomechanics of Leipzig (IFG), in Germany, the global reference in geomechanics of salt wells, and must be adopted in coordination with the Civil Defense and other authorities. For the other wells, the recommendation was to adopt complementary monitoring measured, with no need to vacate properties and relocate residents.

In January 2020, an agreement was signed with the Alagoas State Public Defender's Office (DPE), the Federal Prosecution Office (MPF), the Alagoas State Prosecution Office (MPE) and the Federal Public Defender's Office (DPU) in order to implement: (i) the Financial Compensation and Support for Relocation Program for the residents of the risk areas located in the districts of Mutange, Bom Parto, Pinheiro and Bebedouro in Maceió, Alagoas and demarcated in said agreement, as well as the protection areas announced in November by the Company; and (ii) the actions required to close certain salt mines of Braskem.

In February 2020, the Company entered into another agreement, this time with the Labor Prosecution Office (MPT) for implementing the Program to Recover Business and Promote Education for residents and workers in the districts of Mutange, Bom Parto, Pinheiro and Bebedouro in Maceió, Alagoas.

Accordingly, based on its assessment and on that of its external legal advisors, and considering the existing information, the dialogue with authorities and the best estimate of expenses with the various



safety measures for residents, the Company recognized a provision in its income statements for the fourth quarter of 2019 in the aggregate amount of approximately R\$3.4 billion. This provision includes expenses related to the implementation of the actions provided for in the terms of the agreements mentioned above, in addition to other expenses to be spent by the Company and which are not included in these terms of the agreement. Such expenses will be disbursed over the coming years and could change in accordance with developments in the matter.

All obligations assumed under the Agreement do not constitute the recognition of culpability or liability by the Company for the relocation of the people from the risk areas. Braskem will continue to collaborate with the authorities, with the support of independent experts, to identify the causes of the geological events and the implementation of actions to ensure the safety of the communities in the affected districts.

The Company is negotiating with its insurers the coverage of its insurance policies. These negotiations are in the early stages. Therefore, the payment of compensation will depend on an assessment of the insurance coverage under these policies. Given the uncertainties regarding the matter, no payment of compensation was recognized in the financial statements of the Company.

**a) *Financial Compensation and Support for Relocation Program***

Under the terms of the agreement, the Company will be responsible for supporting the relocation of approximately 17,000 people who live on some 4,500 properties located in the risk areas. The program provides a relocation allowance of R\$5,000, rent allowance of R\$1,000, household goods transportation, costs with real estate agency, furniture storage costs and assistance from psychologists and social workers. It also covers the negotiation of individual settlements for compensation of the residents affected.

To better serve the families covered by the program, the Company created a Residents Center staffed by a Braskem team and outsourced experts, which features the following: (i) bank service posts; (ii) moving services; (iii) storage services; (iv) pet accommodations; (v) psychological assistance; (vi) space for families to meet with their lawyers; (vii) registration post of the Municipal Social Assistance Secretary; and (viii) truck offering itinerant public defender services.

**b) *Program to Recover Business and Promote Education***

The program consists of support for the construction of daycare centers and schools and for administering professional training programs, as well as support for the Civil Defense to hire skilled professionals to continue monitoring the risk areas in the districts affected.

In the context of the geological phenomenon, the following lawsuits were filed against the Company:

***1. Public-Interest Civil Action filed by the MPE and DPE – Reparations for residents***

Filing of preliminary injunction for the freezing of R\$3.7 billion and the award of damages for losses caused to the residents of the districts of Pinheiro, Mutange and Bebedouro, which was estimated by the Plaintiffs of the Public-Interest Civil Action at R\$7.1 billion.

With the ratification by the Federal Judge of the 3<sup>rd</sup> Court of the State of Alagoas of the agreement entered into with the DPE, MPF, MPE and DPU in January 2020, as mentioned above, the Company was granted:

- (i) the unfreezing, in January 2020, of the R\$3.7 billion in cash of the Company that previously had been frozen in the context of the Public-Interest Civil Action, of which R\$1.7 billion was transferred to a bank account of the Company for funding the Financial Compensation and Support for Relocation Program, which must maintain minimum working capital of R\$100 million, subject to verification by an external auditor;

- (ii) the substitution of the performance bonds already submitted by the Company to the Court, in the amount of approximately R\$6.4 billion, by two performance bonds in the aggregate amount of approximately R\$3 billion, of which R\$2 billion is to secure the Public-Interest Civil Action filed by the DPE and MPE and R\$1 billion is to secure the Public-Interest Civil Action filed by the MPF;
- (iii) the elimination of the risk of another freezing of accounts in connection with the Public-Interest Civil Action; and
- (iv) the partial dismissal of the action with regard to the residents of the area envisaged in the Agreement who opt to enter into individual settlements with the Company to receive financial compensation for relocating from the area.

### 2. Public-Interest Civil Action filed by the MPT in Alagoas – Reparations for workers

Public-Interest Civil Action with a preliminary injunction to freeze a total of R\$2.5 billion to guarantee any compensation for pecuniary damages to workers affected by the geological phenomenon. In said lawsuit, the Alagoas State Labor Prosecution Office (MPT-AL) further claimed the award to workers of damages for pain and suffering of R\$1 billion and other obligations in the amount of R\$125 million, bringing the total claim for damages to R\$3.6 billion. On October 10, 2019, the tenured judge of the lawsuit denied the injunction sought by the MPT-AL.

With the signing of the agreement, the MPT-AL agreed to end the public-interest civil action, releasing Braskem from all claims after it makes a judicial deposit of R\$40 million, which was made in March 3, 2020, after the ratification of the agreement by the judge.

### 3. Public-Interest Civil Action filed by the MPF in Alagoas – Social-environmental reparations

Action for: (i) the pledging of a security interest in the amount of R\$20.5 billion; (ii) the creation of a fund in the amount of R\$3.1 billion, with R\$2 billion in working capital in the fund; and (iii) the suspension of the receipt of government financing and incentives, as well the requirement to carry out the early maturity of obligations with government agencies.

The Company and other defendants have argued against the preliminary injunctions, which have not yet been assessed by the tenured judge of the lawsuit.

## UNITED STATES & EUROPE

In 2019, the operations were influenced by the better operating performance of the plants in the United States, by the constraints on inbound logistics for feedstock supply to the one of the plants in Europe due to operating problems at a supplier and by the impact from the weak performance of the automotive industry in Europe on PP spreads in the region.

USA and EUROPE	2019 (A)	2018 (B)	Chg. (A)/(B)
<b>Operating Overview (ton)</b>			
<b>Production</b>			
PP USA	1,435,298	1,388,625	3%
Utilization Rate	91%	88%	3 p.p.
PP EUR	494,241	523,797	-6%
Utilization Rate	79%	84%	-5 p.p.
<b>Total</b>	<b>1,929,539</b>	<b>1,912,423</b>	<b>1%</b>
Utilization Rate	88%	87%	1 p.p.
<b>Sales</b>			
PP USA	1,439,217	1,394,842	3%
PP EUR	481,217	528,385	-9%
<b>Total</b>	<b>1,920,434</b>	<b>1,923,227</b>	<b>0%</b>
<b>Financial Overview (US\$ million)</b>			
<b>Net Revenue</b>	<b>2,591</b>	<b>3,211</b>	<b>-19%</b>
COGS	(2,129)	(2,503)	-15%
<b>Gross Profit</b>	<b>462</b>	<b>708</b>	<b>-35%</b>
<b>Gross Margin</b>	<b>18%</b>	<b>22%</b>	<b>-4 p.p.</b>
SG&A	(194)	(175)	11%
Other Operating Income (Expenses)	(6)	18	-135%
<b>EBITDA</b>	<b>316</b>	<b>608</b>	<b>-48%</b>
<b>EBITDA Margin</b>	<b>12%</b>	<b>19%</b>	<b>-7 p.p.</b>
Net Revenue (R\$ million)	10,044	11,725	-14%
EBITDA (R\$ million)	1,247	2,208	-44%

## Petrochemical spreads

United States and Europe International References* (US\$/t)	2019 (A)	2018 (B)	Chg. (A)/(B)
PP US	1,489	1,852	-20%
PP Europe	1,347	1,535	-12%
<b>Average Price** - US and Europe (1)</b>	<b>1,449</b>	<b>1,763</b>	<b>-18%</b>
Propylene Polymer Grade US	820	1,189	-31%
Propylene Polymer Grade Europe	1,025	1,169	-12%
<b>Average Price*** - Raw Material (2)</b>	<b>878</b>	<b>1,183</b>	<b>-26%</b>
PP US Spread	669	663	1%
Europe PP Spread	322	366	-12%
<b>PP US and Europe - Average Spread (1-2)</b>	<b>572</b>	<b>580</b>	<b>-1%</b>

\*Source: External consulting (Spot Price)

\*\*PP USA (72%) and PP Europe (28%)

\*\*\*Propylene USA (72%) and Propylene Europe (28%)

- **PP spread in the United States<sup>9</sup>**: widened due to the higher supply of propylene in the region, due to: (i) the high utilization rates at DHPs; and (ii) the higher use of natural gas liquids (mainly butane) at crackers, which increased the supply of propylene.
- **PP spread in Europe<sup>10</sup>**: narrowed due to the slowdown in the region's economic activity combined with the higher supply of propylene with the normalization of the supply constraints on waterway transportation that affected the region last year.

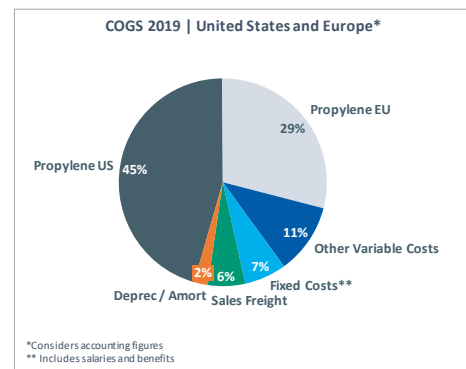
**PP Demand:** in the U.S. market, weakened due to the slowdown in the manufacturing and automotive sectors. In the European market, PP demand strengthened due to higher use by the consumer goods and services sectors, led by packaging, housewares, caps and oriented films, and in the healthcare sector, despite the slowdown in the region's automotive sector.

**Capacity utilization of plants:** increased, mainly due to the better operational performance of the U.S. plants, which counterbalanced the lower production of the European plants, explained by logistics constraints on inbound propylene at plants caused by operational problems at suppliers.

**Sales volume:** as a result, PP sales remained stable in relation to 2018, at 1.9 million tons.

**COGS:** declined from the previous year due to the lower propylene prices in both the United States and Europe. In the United States, the decline in the propylene price was influenced by the product's higher supply in the region. In Europe, the price decline was due to the normalization of waterway transportation, which in the previous year was the source of logistics constraints.

**EBITDA:** was US\$316 million (R\$1,247 million), down 48% from 2018, and accounting for 21% of the Company's consolidated EBITDA.



## MEXICO

In 2019, operations in the region were influenced by the downcycle in the petrochemical industry, by the continuation of ethane supply at levels below the contracted volume, by the slowdown in the Mexican economy and by the strategy to redirect shipments to regions with higher margins.

<sup>9</sup> U.S. PP price – U.S. propylene price

<sup>10</sup> EU PP price – EU propylene price

MEXICO	2019 (A)	2018 (B)	Chg. (A)/(B)
<b>Operating Overview (ton)</b>			
<b>Production</b>			
PE	800,783	808,388	-1%
Utilization Rate	76%	77%	-1 p.p.
<b>Sales</b>			
PE	813,105	798,840	2%
<b>Financial Overview (US\$ million)</b>			
<b>Net Revenue</b>	<b>775</b>	<b>1,034</b>	<b>-25%</b>
COGS	(636)	(636)	0%
<b>Gross Profit</b>	<b>139</b>	<b>398</b>	<b>-65%</b>
<b>Gross Margin</b>	<b>18%</b>	<b>38%</b>	<b>-20 p.p.</b>
SG&A	(89)	(86)	4%
Other Operating Income (Expenses)	82	84	-3%
<b>EBITDA</b>	<b>361</b>	<b>617</b>	<b>-41%</b>
<b>Operational EBITDA Margin*</b>	<b>34%</b>	<b>51%</b>	<b>-17 p.p.</b>
Net Revenue (R\$ million)	3,051	3,771	-19%
EBITDA (R\$ million)	1,427	2,251	-37%

\*Does not consider the delivery-or-pay provision related to feedstock supply agreements

### Petrochemical spreads

Mexico International References* (US\$/ton)	2019 (A)	2018 (B)	Chg. (A)/(B)
PE US (1)	868	1,221	-29%
Ethane US (2)	160	243	-34%
<b>PE US - Spread (1-2)</b>	<b>708</b>	<b>977</b>	<b>-28%</b>

\*Source: External consulting (Spot Price)

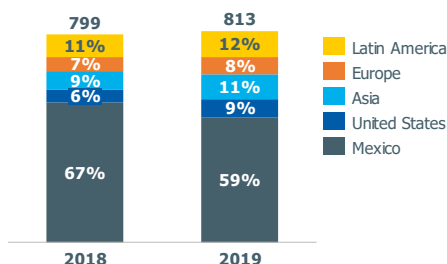
- **PE spread in North America<sup>11</sup>**: narrowed due to the slower growth in PE demand combined with the new capacities coming online in the region, which was partially offset by the lower ethane prices.

**PE demand in Mexico**: declined, to 2.2 million tons, reflecting the Mexico's economic slowdown, driven by the reduction in industrial production.

**Capacity utilization of the PE plant**: down from 2018 due to the lower supply of ethane over the year.

**Sales volume**: higher due to the lower inventories and higher resales of PE made in Brazil. As part of the commercial strategy for allocating PE to more profitable regions, exports to the United States and Europe grew by 51% and 29%, respectively, in 2019 compared to 2018.

Sales volume by region (kton)

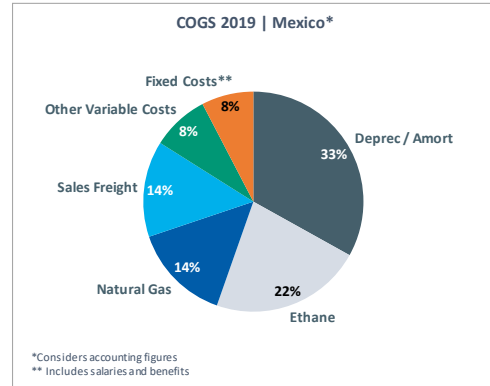


<sup>11</sup> U.S. PE price – U.S. ethane

**COGS:** remained stable, influenced by the higher sales volume and lower natural gas prices in the Mexican market, with these factors offset by the lower ethane prices.

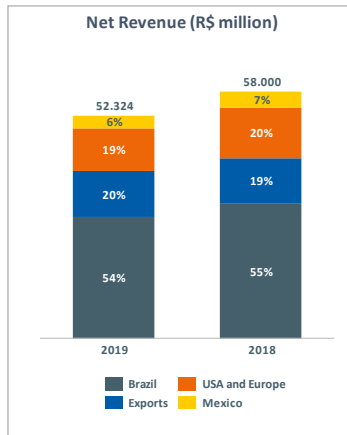
**Other income (expenses), net:** includes income of US\$85.5 million related to the delivery-or-pay clause in the ethane supply agreement.

**EBITDA:** was US\$361 million (R\$1,427 million), down 41% from 2018, and accounting for 24% of the Company's consolidated EBITDA.

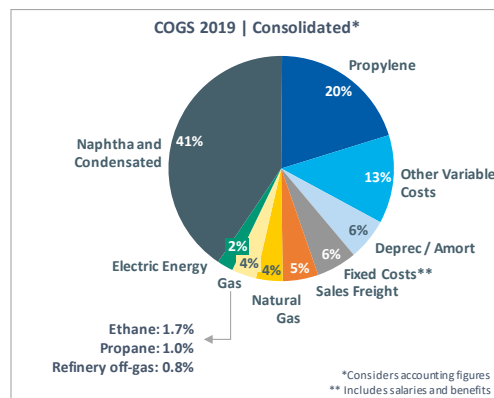


▪ **CONSOLIDATED RESULTS <sup>12</sup> (ECONOMIC-FINANCIAL)**

**NET REVENUE BY REGION**



**CONSOLIDATED COGS**



<sup>12</sup> Braskem's consolidated result corresponds to the sum of the results in Brazil, United States & Europe and Mexico, less eliminations from the revenues and costs related to transfers of products among these regions.

**OTHER INCOME (EXPENSES), NET**
*Other income*

In the year, the increase of R\$1,381 million in relation to the previous year is explained by the recognition of revenue from PIS and COFINS tax liabilities overpaid in prior period, following the decision by the Federal Supreme Court (STF) determining that ICMS tax should not be included in the PIS and COFINS calculation base.

*Other expenses*

The increase of R\$4,302 million compared to 2018 is due to: (i) the provision for implementation of the Financial Compensation and Support for Relocation Program, the actions required to close certain salt mines of the Company and the Program to Recover Business and Promote Education; (ii) the provision for the leniency agreement entered into with the Office of the Federal Controller General (CGU) and with the Office of the General Counsel of the Federal Government (AGU); (iii) the write-off of goodwill for impairment; (iv) the provision for permanently shutting down the chlor-alkali plant located in Camaçari, Bahia; and (v) the increase in the provision for remediation of environmental damages.

OTHER REVENUE (EXPENSE), NET <i>R\$ million</i>	2019 (A)	2018 (B)	Chg. (A)/(B)
<b>Other Revenue</b>			
PIS and Cofins Credits - exclusion of ICMS from the calculation basis	1,904	236	n.a.
Fine on supply contract of raw material	375	386	-3%
Insurance indemnity	18	101	-82%
Income from disposal of fixed assets	11	94	-88%
Tax Recovery	3	46	-93%
Others	97	164	-41%
<b>Total Other Revenues</b>	<b>2,408</b>	<b>1,027</b>	<b>134%</b>
<b>Outras Despesas</b>			
Provision for Alagoas	(3,383)	-	n.a.
Leniency Agreement	(410)	-	n.a.
Provision for the permanently shutdown of chlor-alkali production facility located in Bahia	(173)	-	n.a.
Provision of loss of fixed assets	(159)	(44)	n.a.
Provision for repairing environmental damage	(142)	(89)	58%
Provision of lawsuits, net of reversals	(136)	(83)	63%
Scheduled plant shutdowns	(108)	(91)	18%
Fine on sales contract	(104)	(49)	111%
Others	(243)	(197)	n.a.
<b>Total Other Expenses</b>	<b>(4,857)</b>	<b>(555)</b>	<b>n.a.</b>
<b>OTHER REVENUE (EXPENSE), NET</b>	<b>(2,448)</b>	<b>473</b>	<b>n.a.</b>

**EBITDA BY SEGMENT/REGION**

Financial Overview (R\$ million) CONSOLIDATED	Net Revenue	COGS	Gross Profit	SG&A	Alagoas	SG&A	Minority Interest	Other Revenue s and Expenses	Operating Profit	EBITDA
Brazil (i)	38,781	(34,604)	4,177	(2,621)	266	(2,355)	-	(4,179)	(2,357)	3,205
U.S. and Europe	10,044	(8,233)	1,811	(785)	-	(785)	-	8	1,034	1,247
Mexico	3,051	(2,504)	547	(351)	-	(351)	-	325	521	1,427
<b>Segments Total</b>	<b>51,877</b>	<b>(45,341)</b>	<b>6,536</b>	<b>(3,757)</b>	<b>266</b>	<b>(3,491)</b>	<b>-</b>	<b>(3,846)</b>	<b>(802)</b>	<b>5,879</b>
Other Segments (ii)	174	(51)	124	(27)	-	(27)	-	4	101	132
Corporate Unit	-	-	-	-	-	-	10	1,390	1,400	1,963
Eliminations and Reclassifications (iii)	273	(288)	(15)	(479)	-	(479)	-	4	(490)	(133)
<b>Braskem Total</b>	<b>52,324</b>	<b>(45,680)</b>	<b>6,644</b>	<b>(4,262)</b>	<b>266</b>	<b>(3,997)</b>	<b>10</b>	<b>(2,448)</b>	<b>209</b>	<b>7,840</b>
PIS and Cofins credits - exclusion of ICMS from the calculation basis (iv)	-	-	-	-	-	-	-	(1,904)	(1,904)	(1,904)
<b>Total Braskem Recorrente</b>	<b>52,324</b>	<b>(45,680)</b>	<b>6,644</b>	<b>(4,262)</b>	<b>266</b>	<b>(3,997)</b>	<b>10</b>	<b>(4,353)</b>	<b>(1,695)</b>	<b>5,936</b>

(i) Does not consider expenses related to geological phenomenon of Alagoas

(ii) It considers, mainly, the result of Cetrel already eliminated with the transactions between it and the Company

(iii) Includes transactions between the Company's segments

(iv) Adjustment related to PIS and COFINS credits - exclusion of ICMS from the calculation basis

## NET FINANCIAL RESULT

### *Financial expenses*

The 30% increase in relation to 2018 is explained by the higher expenses with: (i) the interest related to adoption of the new standard IFRS 16 as of January 1, 2019; (ii) the adjustment to present value of the leniency agreement due to the change in the adjustment index, from the IPCA index to the SELIC rate, of the installments payable to the Federal Prosecution Office (MPF) in the amount of R\$118 million; (iii) the payment of the premium for the total prepayment of the bonds due in 2020 and 2021, and for the partial prepayment of the bonds due in 2022 and 2023 (*breakfund costs*); and (iv) the amortization of transaction costs associated with the partial settlement of liabilities under the Project Finance structure.

### *Financial income*

The increase of 44% compared to 2018 is due to: (i) the recognition, and the respective inflation adjustment, of income related to the PIS and COFINS tax liabilities overpaid in prior period, in the aggregate amount of R\$208 million; and (ii) the inflation adjustment of the cash frozen by the courts related to the public-interest civil action filed by the Alagoas State Prosecution Office (MPE) and by the Alagoas State Public Defender's Office (DPE), in the amount of R\$68 million.

### *Exchange variation, net*

Expenses with exchange variation were 24% lower than in 2018, which is explained by the effects from the lower Brazilian real depreciation against the U.S. dollar on the net exposure of the financial result and by the effects from the Mexican peso appreciation against the dollar on the debtor balance of the loan of Braskem Idesa in the amount of US\$2,226 million on December 31, 2019. These effects offset the higher expenses with the transition to hedge account of export revenue that was recorded under shareholders' equity, in the amounts of R\$1,385 million at Braskem and R\$267 million at Braskem Idesa.

Financial Result (R\$ million) Consolidated	2019 (A)	2018 (B)	Chg. (A)/(B)
<b>Financial Expenses</b>	<b>(3,872)</b>	<b>(2,984)</b>	<b>30%</b>
Interest Expenses	(2,192)	(2,085)	5%
Others	(1,681)	(899)	87%
<b>Financial Revenue</b>	<b>851</b>	<b>589</b>	<b>44%</b>
Interest	709	530	34%
Others	142	59	141%
<b>Net Foreign Exchange Variation</b>	<b>(1,725)</b>	<b>(2,257)</b>	<b>-24%</b>
Foreign Exchange Variation (Expense)	(1,693)	(3,526)	-52%
<i>Passive exchange rate variation</i>	<i>(473)</i>	<i>(7,662)</i>	<i>-94%</i>
<i>Hedge Accounting Realization</i>	<i>(1,652)</i>	<i>(1,259)</i>	<i>31%</i>
Foreign Exchange Variation (Revenue)	(31)	1,269	n.a.
<b>Net Financial Result</b>	<b>(4,746)</b>	<b>(4,651)</b>	<b>2%</b>
<b>Net Financial Result, w/out foreign exchange variation, net</b>	<b>(3,022)</b>	<b>(2,394)</b>	<b>26%</b>
Final Exchange Rate (Dollar - Real)	4.03	3.87	4.0%
Final Exchange Rate (MXN/US\$)	19.11	19.65	-2.8%

## FREE CASH GENERATION

Free cash generation in 2019 was R\$3,108 million, down 56% from 2018, due to the lower EBITDA and the payment of interest related to the full/partial prepayment of certain bonds (*breakfund costs*), with these factors partially offset by:

- decrease in accounts receivable, due to the lower sales volume and lower sales prices of products;
- lower inventories of feedstock and finished goods;
- higher volume of naphtha imports with longer payment terms;
- monetization of R\$281 million of the balance in PIS/COFINS taxes (exclusion from ICMS tax base);

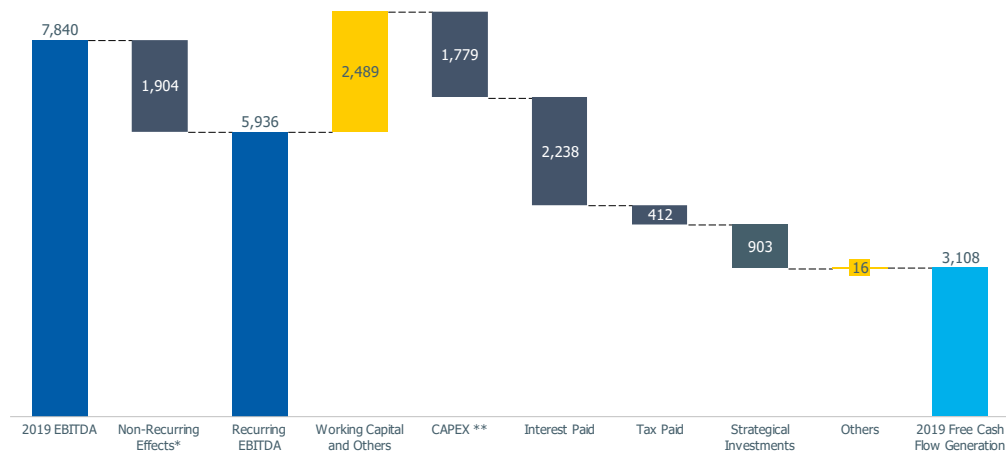
- receipt of advances from clients related to future sale of chemicals in the Brazilian market and to future exports of PE and PP; and
- lower payment of income tax and social contribution (IR/CSLL) in Brazil and of income tax in the United States.

Free Cash Flow Generation R\$ milhões	2019 (A)	2018 (B)	Chg. (A)/(B)
<b>Recurring EBITDA</b>	<b>5,936</b>	<b>11,080</b>	<b>-46%</b>
Changes in Working Capital*	2,489	1,373	81%
Operational CAPEX	(1,779)	(1,880)	-5%
Interest Paid	(2,238)	(1,917)	17%
Income tax and social contribution paid	(412)	(938)	-56%
Strategic Investments	(903)	(826)	9%
Others**	16	176	-91%
<b>Free Cash Flow Generation</b>	<b>3,108</b>	<b>7,068</b>	<b>-56%</b>

\*Adjusted to: (i) exclude the leniency agreement payment; (ii) exclude the effects of the reclassification between Financial Applications (includes LFT's and LF's) and Cash and Cash Equivalent; (iii) exclude the impact of judicial deposit related to Alagoas Public Civil Action; and (iv) includes the amount of other financial liabilities.

\*\*Includes, mainly funds received in the sale of assets and investments

**2019 Free Cash Flow Generation (R\$ million)**



\* Considers adjustments in the PIS/COFINS credits (exclusion of ICMS base)

\*\* Considers the Braskem Idesa Capex, Celrand does not consider associated taxes in the working capital

## LIQUIDITY & CAPITAL RESOURCES

### BRASKEM (ex-BRASKEM IDESA)

On December 31, 2019, the average debt maturity term was around 17 years<sup>13</sup> and the average weighted cost of the Company's debt was exchange variation + 5.17%. In the year, the highlights were as follows: (i) the US\$2.25 billion international bond issue, with US\$1.5 billion due in ten years and US\$750 million in 30 years; and (ii) the R\$550 million issue of promissory notes due in up to five years.

<sup>13</sup> Considers the 100-year perpetual bond. Including the 30-year perpetual bond, the average debt term is 12 years.



Debt US\$ million	dec/19 (A)	dec/18 (B)	Chg. (A)/(B)	
<b>Consolidated Gross Debt</b>	<b>9,750</b>	<b>9,214</b>	<b>6%</b>	
in R\$	407	266	3%	53%
in US\$	9,343	8,948	97%	4%
<b>(-) Debt - Braskem Idesa</b>	<b>2,476</b>	<b>2,711</b>	<b>-9%</b>	
in US\$	2,476	2,711	100%	-9%
<b>(+) Leniency Agreement*</b>	<b>468</b>	<b>420</b>	<b>12%</b>	
in R\$	399	323	77%	23%
in US\$	69	96	23%	-28%
<b>(=) Gross Debt (Ex-Braskem Idesa)**</b>	<b>7,742</b>	<b>6,923</b>	<b>12%</b>	
in R\$	806	589	9%	37%
in US\$	6,936	6,333	91%	10%
<b>(-) Cash and Cash Equivalents (Ex-Braskem Idesa) ***</b>	<b>2,373</b>	<b>1,794</b>	<b>32%</b>	
in R\$	1,453	1,098	61%	32%
in US\$	919	696	39%	32%
<b>(=) Net Debt (Ex-Braskem Idesa)</b>	<b>5,369</b>	<b>5,129</b>	<b>5%</b>	
in R\$	(648)	(508)	-10%	27%
in US\$	6,017	5,637	110%	7%
<b>Recurring EBITDA (LTM) ****</b>	<b>1,140</b>	<b>2,357</b>	<b>-52%</b>	
<b>Net Debt/Recurring EBITDA</b>	<b>4.71x</b>	<b>2.18x</b>	<b>116%</b>	
<b>EBITDA (LTM)</b>	<b>1,450</b>	<b>2,486</b>	<b>-42%</b>	
<b>Net Debt/EBITDA</b>	<b>3.70x</b>	<b>2.06x</b>	<b>80%</b>	

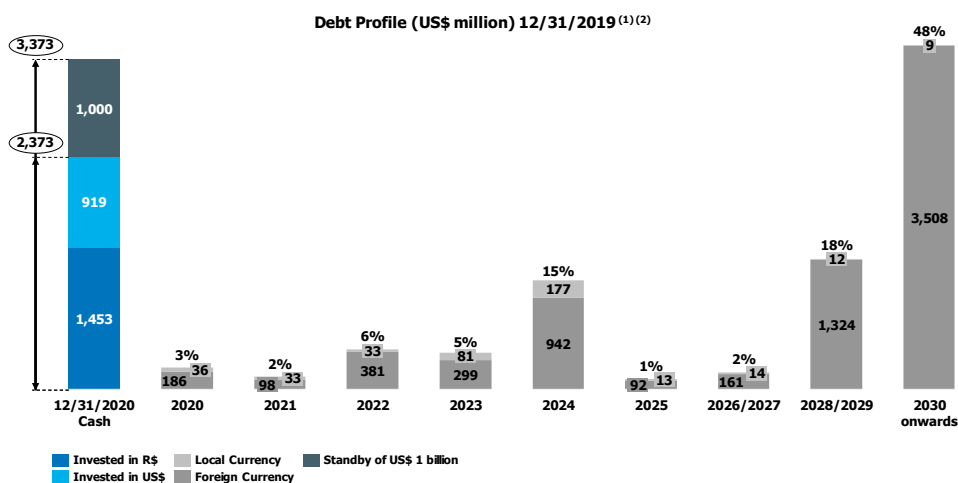
\* Includes US\$36 million of USD/IPCA SWAP

\*\* Includes US\$6 million of USD/CDI SWAP

\*\*\* Does not consider the amount of R\$1.7 billion destined to the Financial Compensation and Relocation Support Program in Alagoas

\*\*\*\* The Company modified its EBITDA calculation methodology as of 4Q19 to exclude non-recurring effects, the main one being PIS and COFINS credits (excluding the ICMS calculation base)

The liquidity position of US\$2,373 million is sufficient to cover the payment of all liabilities coming due in the next 71 months. Additionally, the Company has available an international stand-by credit facility of US\$ 1 billion due to 2023.



(1) Does not consider discounts from transaction costs and Leniency Agreement.  
 (2) Considers the amortization of R\$26 million in 2021 related to the NCE Swap, according to note 20 (20.3.1) of the 2019 Financial Statements.



### Risk-rating agencies:

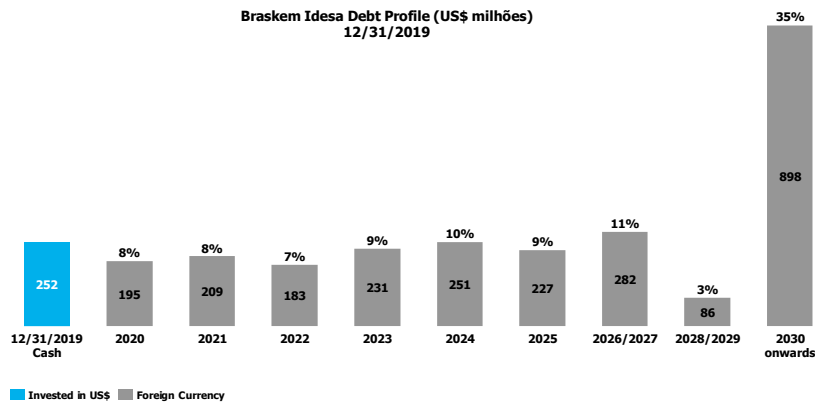
Braskem maintained its investment-grade credit rating assigned by Standard & Poor's (BBB-) and by Fitch Ratings (BBB-), however, with its outlook downgraded to negative at both agencies. At Moody's, Braskem's investment grade rating remained unchanged. The reports are available on the Investor Relations website (<http://www.braskem-ri.com.br/>).

## Braskem Idesa

On December 31, 2019, the average debt maturity term was around 6 years and the average weighted cost of the Company's debt was exchange variation + 5.98%. A highlight in the year was the international issue of US\$900 million in ten-year bonds.

In December 2019, Braskem Idesa issued US\$900 million in bonds in the international market due in 2029 and with interest of 7.45% p.a. The funds were used to fully settle and partially prepay installments of the Project Finance liabilities contracted by Braskem Idesa in 2012 with certain creditors to finance the construction of its petrochemical complex.

Braskem Idesa Debt US\$ million	dec/19 (A)	dec/18 (B)	Chg. (A)/(B)
<b>Gross Debt</b>	<b>2,476</b>	<b>2,711</b>	<b>-9%</b>
in US\$	2,476	2,711	-9%
<b>(-) Cash and Cash Equivalents</b>	<b>252</b>	<b>249</b>	<b>2%</b>
in US\$	252	249	2%
<b>(=) Net Debt</b>	<b>2,224</b>	<b>2,462</b>	<b>-10%</b>
in US\$	2,224	2,462	-10%
<b>EBITDA (LTM)</b>	<b>373</b>	<b>619</b>	<b>-40%</b>
<b>Net Debt/EBITDA</b>	<b>5.96x</b>	<b>3.98x</b>	<b>50%</b>



## INVESTMENTS

The Company made investments in its operations and in strategic projects<sup>14</sup> in the amount of US\$700 million, which was US\$187 million or 21% lower than the amount estimated at the start of the year and surpassed the reduction target of US\$100 million set at the end of 1H19, which demonstrates the Company's commitment to financial solidity in a more challenging petrochemical scenario that initially envisaged.

**Operating Investments 2019:** the largest investments were made in the scheduled shutdowns of the Bahia cracker in Brazil and in the La Porte plant in the United States.

**Strategic Investments 2019:** the funds were invested in the following projects: (i) construction of the new PP plant in the United States, which amounted to R\$678 million (US\$173 million), accounting for 75.1% of the total investment in strategic projects; (ii) the upgrading of the electrical infrastructure at the Neal plant in the United States; (iii) the modernization of the electrical system of the petrochemical complex in the ABC region of Greater São Paulo; and (iv) the resumption of chlor-alkali production in Maceió with the outsourcing of sea salt.

<sup>14</sup> Excluding the CAPEX of Braskem Idesa.

Investments	R\$ MM			US\$ MM		
	2019 (A)	2019e (B)	Chg. (A)/(B)	2019 (C)	2019e (D)	Chg. (C)/(D)
<b>Corporates (ex-Braskem Idesa)</b>						
<b>Brazil</b>	<b>1,749</b>	<b>2,079</b>	<b>-15.9%</b>	<b>440</b>	<b>556</b>	<b>-20.9%</b>
Operating	1,655	2,001	-17.3%	417	535	-22.2%
Strategic	94	78	21.7%	23	21	12.8%
<b>USA and Europe</b>	<b>1,027</b>	<b>1,236</b>	<b>-16.9%</b>	<b>260</b>	<b>331</b>	<b>-21.5%</b>
Operating	218	267	-18.3%	54	71	-24.5%
Strategic (i)	809	969	-16.5%	206	259	-20.6%
<b>Total</b>	<b>2,776</b>	<b>3,315</b>	<b>-16.3%</b>	<b>700</b>	<b>887</b>	<b>-21.1%</b>
<b>Total</b>						
Operating	1,873	2,268	-17.4%	470	607	-22.5%
Strategic	903	1,047	-13.7%	229	280	-18.2%
<b>Total</b>	<b>2,776</b>	<b>3,315</b>	<b>-16.3%</b>	<b>700</b>	<b>887</b>	<b>-21.1%</b>

(i) Includes mainly the investment in the construction of the new PP plant in the US

Investments	R\$ MM			US\$ MM		
	2019 (A)	2019e (B)	Chg. (A)/(B)	2019 (C)	2019e (D)	Chg. (C)/(D)
<b>Non-Corporates (Braskem Idesa)</b>						
<b>Mexico</b>						
Operating	104	107	-2.3%	26	29	-10.4%
<b>Total</b>	<b>104</b>	<b>107</b>	<b>-2.3%</b>	<b>26</b>	<b>29</b>	<b>-10.4%</b>

## Investments in 2020

The capital expenditures to be made by Braskem over the course are projected at R\$3,010 million (US\$721 million).

Investments	2020e	
	R\$ MM	US\$ MM
<b>Corporates (ex-Braskem Idesa)</b>		
<b>Brazil</b>	<b>1,857</b>	<b>445</b>
Operating	1,595	382
Strategic	263	63
<b>USA and Europe</b>	<b>1,153</b>	<b>276</b>
Operating	242	58
Strategic (i)	911	218
<b>Total</b>	<b>3,010</b>	<b>721</b>
<b>Total</b>		
Operating	1,836	440
Strategic	1,174	281
<b>Total</b>	<b>3,010</b>	<b>721</b>

(i) Includes mainly the investment in the construction of the new PP plant in the US

## Braskem Idesa

Braskem Idesa should invest R\$94 million (US\$22 million) during 2020 in projects for operating efficiency gains, such as the ethane import project, maintenance, productivity and HES.

Investments	2020e	
	R\$ MM	US\$ MM
<b>Non-Corporates (Braskem Idesa)</b>		
<b>Mexico</b>		
Operating	94	22
<b>Total</b>	<b>94</b>	<b>22</b>

## VALUE CREATION

### ABC petrochemical complex energy efficiency project

The partnership between Braskem and Siemens to modernize the thermoelectric system of the ABC Complex reached approximately 11% completion, with total investment to date of US\$13.3 million. The works are planned for during the next scheduled investment maintenance, which is slated for September 2020.

**Fast track project for ethane imports**

As disclosed to the market on February 10, 2020, Braskem Idesa imported the first shipment of ethane, the feedstock used to make polyethylene at the Petrochemical Complex in Mexico, which represents an important milestone for the Company, since it partially offsets the lower supply of ethane by PEMEX, thereby ensuring higher capacity utilization rates for Braskem Idesa.

**4. INNOVATION & TECHNOLOGY**

Consistent with its commitment to foster continuous development in the petrochemical industry and plastics chain, Braskem maintains an Innovation department with 301 dedicated professionals. Currently, it has 2 Innovation & Technology Centers, with 1 located in Triunfo, Rio Grande do Sul and 1 in Pittsburgh, Pennsylvania; 1 Renewable Chemicals Research Center in Campinas, São Paulo, 1 Center for the Development of Process Technologies in Mauá, São Paulo, 2 Technical Centers in Wesseling, Germany and Coatzacoalcos, Mexico, and 7 pilot plants. In December 2019, its portfolio was formed by 258 projects to develop new products, markets and processes.

A relevant portion of the pipeline's value is represented by longer-term projects of higher technological complexity, which are divided into programs for the development of new technologies, the creation of new product families and expansion into new markets.

The importance of Braskem's innovation program and its pipeline is demonstrated by the results of the launch of new polyolefins products in all regions, for which 16% of consolidated sales volume comes from products launched in the last five years. In 2019, 21 new resin grades were added to the portfolio, which included:

- The launch of PP RF70 is a new Braskem solution for use in stretch films produced in multiple layers, that confers an excellent balance of properties that produces benefits for the entire value chain. The resin RF 70, which can be used in conventional polypropylene films, provides better sealing behavior in final applications and excellent optical properties.
- Advances in the HDPE portfolio to better serve the agrochemical markets, with the launch of various resins with increased chemical resistance, which are converted via extrusion blow molding. For example, the resin HD4507UV for the large 1,000-liter containers called Intermediate Bulk Container (IBC), HS5103 for 200-liter drums and the resins Rigeo GF4950HS and Rigeo HD1053H for containers with capacities of 5, 10 and 20 liters.
- A new product family called Medcol was launched during K Fair, in Dusseldorf, Germany. Medcol grades were developed and are produced in accordance with the highest quality standards to serve the healthcare industry in Europe. The products launched were Medcol V4020, V4080, V4081 and V1070.

Some of the achievements in the year in the area of Innovation & Technology follow:

- Filing of 34 new patent applications and 152 requests for extensions. Today, the Company has 652 active documents, of which 282 have been granted patents;
- The highlights of the assets dedicated to research and development follow:
  - a. Investment of over R\$8 million in the Technology & Innovation Center (ITC) in Triunfo, Rio Grande do Sul and of over R\$2.9 million in the ITC in Pittsburgh, Pennsylvania to automate laboratories, seeking not only productivity gains, but also access to new technologies. Robotic systems were installed to increase the efficiency and precision of results, and automated systems were installed on equipment for measuring density, whose main benefits are a reduction in ergonomic risks and productivity gains;
  - b. Project Eagle launched a new information management, the Laboratory Information Management System (LIMS). The new system also features the use of the ELN-Electronic Lab Notebook for registering the research conducted and innovations achieved. The effort drew on the participation of team members from all of Braskem's I&T and Technical Support

teams in Germany, United States, Mexico and Brazil, as well as team members from the IT, Procurement, Legal and Digital teams;

- Support provided to 513 Clients at our technology center in Triunfo, Rio Grande do Sul, with over 50,000 tests conducted. In Pittsburgh, Pennsylvania, 16,000 tests were conducted for 57 Clients;
- Advances in the research in renewables in Campinas, São Paulo, with a focus on proof of concept of fermentative routes for the production of biobased solvents and plastics to substitute the fossil-based products used today. Another highlight, in Denmark, was the operation of a plant on a demonstrative scale of the catalytic route for the production of monomers from PET made from sugar. These projects are intimately related to the proposition of a circular economy at the start of the value chain and sustainability by seeking to develop products that capture CO<sub>2</sub> from the air and reduce the dependency on fossil-based feedstocks.
- The construction of a new building with over 4,000 square meters of area in Triunfo, Rio Grande do Sul is ongoing, with the construction and metallic infrastructure already completed. The investment of approximately R\$50 million in Braskem's Innovation & Technology Center will receive new equipment and laboratories for the development and testing of technologies for the production of thermoplastic resins around the world. The construction project itself is an inspiration to innovation, with the use of plastics in the construction already identified. These are solutions that take into account, the savings, durability, resistance and versatility of the materials;
- Start of construction in Pittsburgh, Pennsylvania of 9 new catalysis laboratories. The facility with 640 square meters of built-up area will be completed in the second half of 2020. The total cost is projected at US\$10 million. The new laboratories will support research in both chemicals and polyolefins. The facility will include laboratories for catalysis, chemicals, specialties, polyethylene, polymer sciences and will support the analytical team; and
- The assessment of the possible business models and technologies for additive manufacturing were finalized, which led to the creation of a new business whose mission is to create a new revenue stream from the supply of materials ready for 3D printing in the form of filaments and powder. We made advances in the development of five new products based on PP, PVC, biobased PE and biobased EVA to meet the demand for polyolefin and vinyl products for 3D printing using Fused Filament Fabrication and Selective Laser Sintering (SLS).

## 5. Value Drivers

### ▪ **DIGITAL TRANSFORMATION**

Braskem operates in an ever more complex and constantly changing business environment that is subject to uncertainties and market innovations. To the Company, this environment is viewed as offering new opportunities to create value for shareholders, clients and the business. As such, it constantly monitors the megatrends in the industrial sector, macro trends and geopolitics in search of strategic insights for enhancing the company's practices.

In 2019, Braskem announced a bold action plan that consisted of implementing a series of digital tools to transform strategic parts of its operations and processes in order to improve the performance of its business and reshape its work practices. The roadmap outline included opportunities to create value in critical areas, such as production, supply chain, marketing and sale, procurement, maintenance, corporate functions such as legal and financial, etc. The aim was to strengthen Braskem's position as a leader in the petrochemical industry and create value for businesses, shareholders, clients and team members.

The initiatives explored in 2019 by the Company included:

- **Reinforcing quality control:** new laser sensors and analytical tools made it possible to capture and organize information coming from the plants. This allowed the teams to develop important standards and connections for adjusting product quality based on past production. It also accelerated the process

of making any corrections at each plant, which reduced loss and general costs, while assuring higher quality standards for the chemical and plastic products;

- **The power of preventive maintenance:** employing advanced analysis of applications, Internet of Things and smartphones, Braskem established a target to monitor more than 7,000 equipment through digital tools. This type of technique accelerates the capacity to predict in advance and with greater accuracy higher severity faults in plants, helping to prevent machinery downtime. The operation led to less unplanned downtime and lower maintenance costs;
- **Edge Portal:** is a platform for clients in the chemical industry Edge enables clients to conduct searches and comparisons of the products available, place orders and access their order history. They also can track their shipments and access sale documents, serving as a one-stop shop for all the information they need and with access via desktops and mobile devices.
- **LoadShark:** seeks to improve the way that the Company schedules shipments by truck from plants to warehouses and clients. In Brazil, around 1,500 shipments leave Braskem's plants every day. Scheduling deliveries is a mainly manual process that involves different people, documents and spreadsheets. LoadShark uses algorithms to assess the impact of orders, the location of trucks, the receipt of shipments, clients, destinations and delivery deadlines. The platform uses these data to create delivery schedules that are more efficient in terms of freight costs and fleet productivity;
- **Pull and Push:** With "Push Process," the team seeks to connect Braskem to the most innovative technologies and to global megatrends through strategic partnerships with startups, marketing intelligence firms and universities to drive innovation from the inside out. Next comes the "Pull Process," using the "Innovation Sprint" tool. In this case, the Digital Center executes these sprints with the company to understand the problem points and to outline the priorities for surmounting these challenges and creating a script of digital initiatives guided by solutions. In 2019, the Digital Center conducted four of these sprints with different parts of the business: Polyolefins, Feedstocks, Shared Services and Legal & Governance. Over the course of the more than 150 interviews with leaders and other stakeholders, Braskem identified 868 unique critical points, which resulted in 30 opportunities that now will become part of the Company's roadmap and guide future innovations.

## 6. Capital Markets & Investor Relations

On December 31, 2019, Braskem's capital amounted to R\$8,043,222,080.41, divided into 797,218,554 shares, as shown in the following table. Its common shares, class "A" preferred shares and class "B" preferred shares trade on the Sao Paulo Stock Exchange (B3), under the stock tickers "BRKM3," "BRKM5" and "BRKM6," respectively.

On the New York Stock Exchange (NYSE), its shares trade through the Level III ADR Program, under the ticker "BAK." On the Madrid Stock Exchange, the shares trade through the Latibex Program, under the ticker "XBRK."

OWNERSHIP STRUCTURE								
SHAREHOLDERS	28/12/2018							
	COMMON		PREFERRED CLASS "A"		PREFERRED CLASS "B"		TOTAL	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
ODEBRECHT S.A.	226.334.623	50,11%	79.182.498	22,95%	0	0%	305.517.121	38,32%
PETROBRAS	212.426.952	47,03%	75.761.739	21,96%	0	0%	288.188.691	36,15%
ADR's	0	0,00%	48.780.072	14,14%	0	0%	48.780.072	6,12%
OTHERS	12.907.077	2,86%	140.090.605	40,60%	500.230	100%	153.497.912	19,25%
TREASURY	0	0,00%	1.234.758	0,36%	0	0%	1.234.758	0,15%
<b>TOTAL</b>	<b>451.668.652</b>	<b>100%</b>	<b>345.049.672</b>	<b>100%</b>	<b>500.230</b>	<b>100%</b>	<b>797.218.554</b>	<b>100%</b>

In 2019, there was no other material change in the ownership structure of the Company in the year, such as capital increases, stock splits, reverse stock splits, bonus shares or capital reductions.

On October 21, 2019, as announced to the market on October 25, 2019, a Alaska Investimento Ltda., through investment funds under its management, attained an equity position of 17,795,200 class "A" preferred shares issued by the Company, representing 5.15% of the total class "A" preferred shares issued

by the Company Alaska further informed that the increase in the aforementioned equity interest is strictly for the purposes of executing financial transactions, and does not seek to change the controlling group or the administrative structure of the Company. On December 31, 2019, Alaska's equity position reached 21,898,500 class "A" preferred shares, representing 6.34% of the total class "A" preferred shares issued by the Company.

▪ **B3 (Level I Corporate Governance) – BRKM5 and BRKM3 Stock Performance**

In 2019, the Bovespa Index (Ibovespa), continued its series of annual gains, advancing 31.58% from the closing quote on December 28, 2018. The main factors contributing to the index's positive performance were the series of cuts to the Selic policy rate (from 6.5% at the start of the year to 4.5% at the end of the year) and the stronger inflows of investors, in the context of the country's economic recovery. The common shares (BRKM3) closed the year quoted at R\$31.54 per share, representing a decrease of 35.2% from the end of 2018. The class "A" preferred shares (BRKM5) also declined, by 35.2%, in relation to the close of 2018, quoted at R\$29.85 per share. The depreciation in Braskem's shares during the year was mainly influenced by the downcycle in the petrochemical scenario and by the termination of negotiations between Odebrecht and LyondellBasell for the sale of an interest in Braskem, as per the notice of Material Information dated June 4.

In the year, the highest one-day gains in the shares BRKM3 and BRKM5 were 9.07% and 10.11%, respectively, in the trading session of May 20, 2019.

The highest one-day declines in the shares BRKM3 and BRKM5 in the year were 11.46% and 17.11%, respectively, in the trading session of June 4, 2019, in the context of the cessation of negotiations between Odebrecht and LyondellBasell for the sale of an interest in Braskem.

BRKM3 common shares registered average daily trading volume of R\$250,000 in 2019, compared to R\$129,000 in 2018, representing an increase of 93%. The stock's highest quote during the year was R\$55.00 per share, on February 26, 2019, and its lowest quote was R\$27.07 per share, on August 26, 2019.

In the year, the average daily financial trading volume in BRKM5 increased by 12.8% in relation to 2018, from R\$80.7 million to R\$91.1 million per day. The stock's highest quote during the year was R\$54.49 per share, on February 26, 2019, and its lowest quote was R\$25.40 per share, on August 27, 2019.

For the 15<sup>th</sup> straight year, Braskem stock was included as a component of the Corporate Sustainability Index (ISE), placing it in a select group of companies composing the portfolio in the period from January to December 2020. Created by the B3 in partnership with capital market trade associations, the Getulio Vargas Foundation, Instituto Ethos and the Ministry of the Environment, the ISE reflects the return on a portfolio composed of stocks from companies with a recognized commitment to social responsibility and corporate sustainability and to promoting good practices in Brazil's corporate environment. The new ISE portfolio comprises 36 stocks of 30 companies that represent 15 industries and combined market capitalization of R\$1.64 trillion, which corresponds to 37.62% of the total market capitalization of listed companies in Brazil.

▪ **LEVEL II ADR PROGRAM – New York Stock Exchange (BAK)**

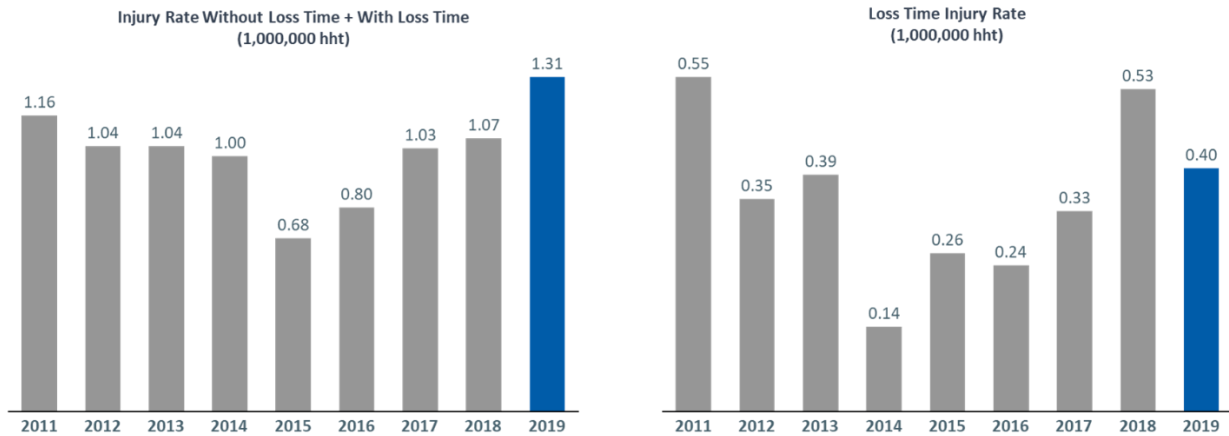
In 2019, the ADRs representing the class "A" preferred shares registered a decline of 39.17% in relation to 2018. The security's highest quote during the year was US\$29.99 per ADR, on February 15, 2019, and its lowest quote was US\$12.51 per ADR, on August 26, 2019.

In addition, as per the notices to the market dated October 7, 2019 and October 17, 2019, Braskem filed its 20-F Forms for the fiscal years 2017 and 2018, respectively. Consequently, as per the notice of material information dated October 21, 2019, the New York Stock Exchange ("NYSE") notified Braskem to inform that it had ended the procedures for suspending trading announced on May 13, 2019. Since October 24, trading in Braskem's American Depositary Shares ("ADSs") was resumed, and Braskem's ADSs resumed trading on the NYSE under the ticker "BAK" previously used by the Company.

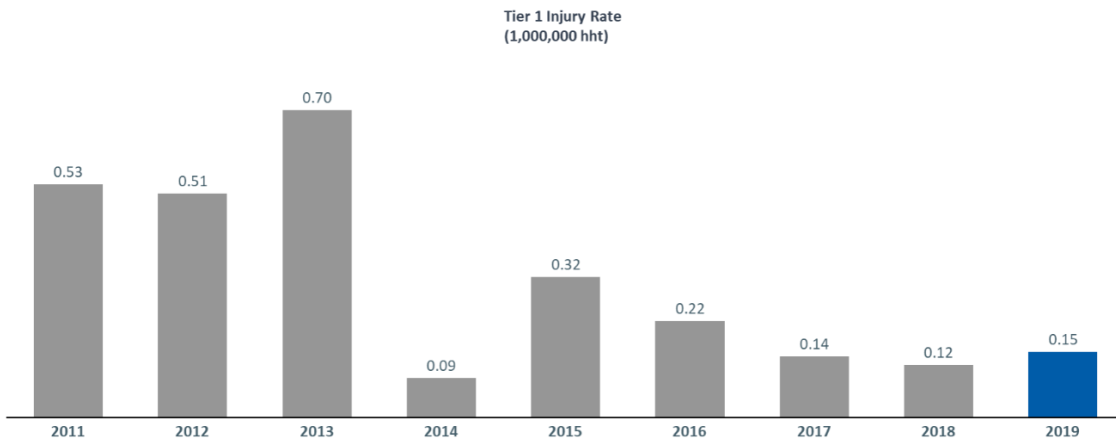
**7. Health & Safety**

In 2019, Braskem made advances in implementing its new management system, called Intelius, and is now initiating an audit of the more critical global requirements and standards. In its pursuit of continuous improvement and better results in the areas of Health & Safety, the Company carried out various actions to reduce risk scenarios in process safety and other areas, with a focus on human reliability, which included: training sessions on the PUMA and ABC tools, applied methodologies, such as analysis of root causes in incident investigations, with a focus on human factors; the development and use of games and videos, to disseminate a culture of human reliability. The Company also developed a pilot project for analyzing and identifying any behavioral factors with the potential to contribute in the profile of accidents at one of its regional sites in Brazil.

With regard to Workplace Safety, the Injury Frequency Rate with and without Lost Time per million hours worked, considering both team members and partners, was 1.31, while the Injury Frequency Rate with Lost Time, also considering team members and partners per million hours worked, was 0.40, which in relation to 2018 represents an increase in the former case and a decrease in the latter case. In view of the results and with a focus on continuous improvement in its processes, Braskem made progress in its plans to strengthen the aspects of human reliability and to improve the management of third-party service providers by registering improvement in relation to 2018. This includes strengthening campaigns to raise awareness, which includes even training seniors executives and local leaders in the principles of human reliability.



In Process Safety, in 2019, the focus on the critical analysis of near-miss accidents continued, especially on detailing events that provoked the activation of safety barriers, seeking lessons on prevention, better knowledge of the reliability of safety systems and consequently minimizing risks in higher significance scenarios. The rate of Tier 1 accidents per one million hours worked was 0.15. Although the rate increased in relation to 2018, it is in line with the rate of companies in the global chemical industry considered industry references in safety.





Process Safety in Logistics advanced with the creation of the program in risk studies, with the completion of the first cycle, which was begun in 2015. In this year, the study contemplated all the logistics operations involving the last 13 products not yet assessed in prior years and whose operations are classified as low risk potential, based on the volume transported and on the hazard level. Since its start, in 2015, 55 different hazardous and nonhazardous products produced and moved by Braskem already have been evaluated. In road freight, the analysis consisted of 29 freight companies and 289 highway system routes, 23 of which with international destinations (Mercosur), as well as 6 loading/unloading bases. In maritime freight, physical inspections were conducted of 150 vessels, 3,234 documents were analyzed and 8 technical visits were made by the team from Vetting. Specific HES assessments also were made of 9 different maritime terminals contracted by Braskem and at 5 owned terminals, with the inspections based on international standards, such as the Chemical Distribution Institute (CDI-T) and ISGOTT. Audits also were conducted of 33 different bonded warehouses. Note that the operations also adopted the HES procedures for Logistics, seeking to support the implementation of Intelius. As a result of the process of identifying, analyzing and treating potential risks, the first cycle of risk analyses of Braskem’s logistics operations was concluded presenting only low risk potential. By using this process to identify risks and define preventive control barriers, Braskem prioritizes the prevention of accidents involving its logistics operations

In Chemical Safety, the Company updated, improved and made available to stakeholders its Emergency Data Sheets the Chemical Products Safety Data Sheet, in accordance with the applicable legislations.

With the increased knowledge of products and their end applications, Braskem was able to obtain approval from international regulators and to enter new markets, ensuring safety for clients and the business. For the future Brazilian Chemical Safety Regulations, the Company is defending a simple piece of legislation and its gradual implementation jointly with the Brazilian Chemical Manufacturers' Association (Abiquim), which will help Brazil to understand the risks of chemical products without causing an overly heavy burden for the country. As a company that is a signatory to the Responsible Care Program®, Braskem is committed to excellence in health, environment and safety in order to improve people lives and to create sustainable solutions using chemical and plastics goods.

In the Management of Occupational Hygiene & Health (OHH), actions and campaigns were carried out to raise awareness and prevent disease and improve quality of life, such as the global campaign for World Health Day, whose theme was Mental Health, the flu vaccination campaign and the prevention of breast and prostate cancer at all sites. To reduce the risk profiles to occupational risk factors, certain improvement projects were implemented at units, such as the enclosure of noise sources and the installation of dual seal pumps and of closed samplers. During the process to implement Intelius, proposals for methodologies that prioritize OHH risks and the procedures for preparing and modeling the plan for management and response to pandemic. These proposals are then submitted for approval and the development of action plans for implementation in 2020. With regard to the indicator for New Cases or Worsening of Occupational Illness, 3 new cases were registered in 2019: One in the United States and two in Brazil, all due to acute exposure caused by isolated emergency situations.

## **8. Environment, Social Responsibility & Corporation Governance**

Braskem’s sustainability actions are based on: (i) its Belief and Purpose; (ii) the ten Macro Goals included in its Strategic Pillars of ever more sustainable processes and products and solutions for a more sustainable life; and (iii) its Global Policy for Sustainable Development. In this context, the Company conducted various initiatives in 2019 to strengthen its contribution to sustainable development, which include the following:

### **ENVIRONMENT/CIRCULAR ECONOMY**

The Company believes that innovations in plastics are essential for enabling society to raise the standard of living and improve the sustainability of products that avoid waste and increase efficiency. It also recognizes that global concern with the adequate management of post-consumer plastic waste is a mounting. In order for society to make the most of the benefits that plastics offer, it is essential to adequately recover the material so that it does not cause damage to the natural environment, including marine ecosystems.

In this scenario, aware of its role as a one of the world's largest polymer producer, Braskem, in 2019, implemented a series of global initiatives to drive the Circular Economy in the plastic goods production chain.

The main advances in 2019 in line with the Company's vision for the Circular Economy include:

### **Start**

#### *Product Design*

- **I'm Green:** aligned with the purpose of contributing to the transformation of a linear economy into a Circular Economy, Braskem has been investing in its I'm Green brand by developing its recycled resins portfolio to include sustainable solutions in both recycled and renewable materials. In Brazil, the Company ended the year total sales of recycled resins of 985 tons, while its North America Unit sold over 666 tons, for a total PCR sales of 1,651 tons. It also developed and sold around 699 tons of recycled hexane;
- **LightWeight Platform:** in the context of reducing the consumption of materials and the generation of solid waste throughout the chain, the platform promotes the innovation of new products, processes and more, while also seeking solutions to reduce the weight of final products, such as packaging, automotive parts and other applications, in order to improve the performance and competitiveness of the current portfolio;
- **Big Push – CEPAL:** The "Green Polymers" case study was considered eligible selected as one of the most transformational for the Big Push for Sustainability, a program created by the Economic Commission for Latin America (CEPAL) to foster sustainable investments in Latin America and drive economic growth in the region's countries. The case study not only was included in CEPAL's online repository, but also will be recognized in an international publication specializing in sustainable investments, which will be launched an official event in early 2020. CEPAL's plans is for the "publication to become a recognized international benchmark for sustainable investments in the economic, social and environmental tripod.";
- **Braskem Labs:** Braskem's entrepreneurship platform focused on its acceleration programs, Scale and Ignition, both of which were conducted in partnerships with the accelerator Quintessa. The 5<sup>th</sup> edition of the program Braskem Labs Scale accelerated 12 mature startups innovative and sustainable solutions in chemistry and plastics, while the program Braskem Labs Ignition, which focuses on startups in the early phase, accelerated 10 solutions with potential in innovation and sustainability. In all, 22 startups underwent four months of acceleration involving dozens of mentoring sessions and business connections. Since 2015, the Braskem Labs platform already has accelerated more than 70 startups that cause positive impacts through chemistry and plastics.

### **Production**

#### *Eco-indicators*

In the year, the performance of Braskem's ecological indicators was impacted by the decline in global production and by the shutdowns of the chlor-alkali and dichloroethane plants in the Brazilian state of Alagoas. Other relevant factors were: (i) the heavier rains in certain regions where the Company operates, which increased the discharge of effluents; (ii) the higher temperatures and deterioration in the quality of the water acquired, which provoked an increase in the evaporation rate in cooling towers and the consumption of fire-suppression water to cool down equipment in the summer; (iii) the procedures for maintaining and cleaning equipment; (iv) the delays in the scheduled shutdowns and the occurrence of other unscheduled shutdowns, which impacted all indicators; and (v) the lower efficiency of units and equipment. These effects were partially offset by the lower solid waste generation, due to the postponement or improvements in maintenance and cleaning activities, and by the use internally of waste streams as fuel.

Accordingly, the results obtained were as follows:

- **Wastewater generation:** (1.31 m<sup>3</sup>/t) increased by 10.03% in relation to 2018;

- **Solid, liquid and viscous waste generation:** (2.20 kg/t) increased by 3.61% in relation to 2018;
- **Energy consumption:** (11.09 GJ/t) increased by 1.34% in relation to 2018; and
- **Water consumption:** (4.31 m<sup>3</sup>/t) increasing 0.75% in relation to 2018.

#### *Climate change*

- **Management of Greenhouse Gases (GHG)<sup>15</sup>:** completion of the emissions inventory of 2019, for the base year of 2018, which encompassed all industrial plants and corporate centers and received the Gold Seal of the Brazil Greenhouse Gas Protocol Program for the ninth straight year. Direct emissions (scope 1) amounted to 10,214,251 tCO<sub>2</sub>e, indirect emissions from the use of acquired energy (scope 2) amounted to 802,590 tCO<sub>2</sub>e and other indirect emissions (scope 3) amounted to 24,009,110 tCO<sub>2</sub>e. The intensity of these emissions per ton of product produced reached 0.609 tCO<sub>2</sub>e/t, which represents a cumulative reduction of approximately 21% from the base year of 2008. The Company's target for 2020 is to reach 0.600 tCO<sub>2</sub>e/t of product produced.
- **ABC petrochemical complex energy efficiency project:** the partnership between Braskem and Siemens to modernize the thermoelectric system of the ABC Complex reached approximately 11% completion, with total investment to date of US\$13.3 million. With combined cogeneration of electricity and gas, the unit will consume less energy and emit less greenhouse gases. The estimates are for reductions of 11.4% in the unit's water consumption and of 6.3% in its CO<sub>2</sub> emissions.
- **Carbon credits certification:** receipt of the first certificate of verified use of a renewable fuel (ethanol) substituting a fossil fuel (gasoline) by at least 95% of the owned vehicle fleet in São Paulo, from July 1, 2017 to June 30, 2018.
- **Management of climate risk:** Braskem's Adaptation Plan, whose goal is to reduce to zero climate risks classified as high by 2023 and to maximize business opportunities, has registered good progress, with the projects implemented to date reducing potential physical impacts quantified at approximately US\$40 million;
- **Supplier recognition:** organization of the first event of the Procurement area to recognize suppliers with the best performance in managing their water resources and climate changes, using the performance evaluation of the CDP A List 2018; and
- **COP25, Madrid:** participation in COP25 in Madrid, with positive exposure (presentations on five different panels) for Braskem and its proactive positioning on issues related to Climate Change and Sustainable Development, with the highlight the article published in the newsletter of the Brazilian Chemical Manufacturers' Association (ABIQUIM).

#### *Renewable energy*

- **Floating solar panels:** conclusion of installation of 1 MWp of the 5 MWp floating solar panel project on an area of approximately 5 hectares (equivalent to 5 football fields), which was developed in partnership with Sunlution and UNIPAC group, a Braskem client, with the aim of maintaining or increasing the power generation capacity of the Chesf plant located in Sobradinho during prolonged droughts. Braskem developed a resin with high mechanical strength and guaranteed durability, since the floating solar panels must last for around 20 years; and
- **Distributed generation solar power plant:** investing in the diversification of its energy matrix, Braskem started operating this plant in Bahia, which functions based on distributed energy, a process that enables clients to install generators powered by renewable energy, which will supply 35% of the energy needs of Braskem's offices in Salvador. The energy produced in the month is transformed into a credit that is used to reduce the amount effectively paid.

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<sup>15</sup> Includes the gases CO<sub>2</sub> (carbon dioxide), CH<sub>4</sub> (methane), N<sub>2</sub>O (nitrous oxide) and SF<sub>6</sub> (sulfur hexafluoride) and gases of the HFC family (hydrofluorocarbons).

- **Renewable Energy Acquisition:** A long-term agreement was entered into with the multinational company Voltalia for the acquisition of solar energy for a period of 20 years. With the agreement, Braskem adds a competitive energy source to its portfolio and invests in a clean and sustainable energy matrix. The Company will reduce its CO<sub>2</sub> emissions by 130 kton over the term of the agreement.

*Water efficiency*

- **Adherence to CEO Water Mandate:** a special initiative of the United Nations and the UN Global Compact to promote the sustainable use of water in the world. Through its adherence, Braskem joined over 150 companies from various countries in the commitment to preserve natural resources. The mission of the CEO Water Mandate is to mobilize business leaders in the corporate management of water resources, in partnership with governments, civil society organizations and other stakeholders; and
- **Gota compact sewage system:** developed by BraskemLabs, the system was approved in four campaigns of pilot projects for sewage collection for rural areas in Mogi das Cruzes, São Paulo. Braskem remains aligned with its Sustainable Development Policy, seeking to consolidate itself as a provider of basic sanitation solutions, with joint actions with its client chain with the potential to benefit around 70% of the country's rural population, represented by some 23 million Brazilians without basic sanitation.

**Use**

*Conscientious use and creating value in recycling*

- **Edukatu:** created in 2013 through a partnership between the Akatu Institute and Braskem, this online learning network works to promote the sharing of knowledge and practices in ethical consumerism and sustainability through professors and students in elementary schools nationwide through a free and voluntary platform. The project makes available unprecedented educational content on topics, such as climate change and solid waste management, in fun formats and with language tailored to the public (applications, videos, infographics, games and class plans). In 2019, the project benefited 78 schools and 5,700 new participants;
- **Plastianguis:** initiative that works to expand knowledge among the general public in the Mexican cities of Nanchital and Veracruz on the value of post-consumer plastic through a drive to exchange plastic waste for food staples.

*Life cycle analysis (LCA)*

- **Completion of 20 studies:** with the study of anti-glare devices entitled "Sustainability for highways operation: Comparative analysis of vanes oval-shaped and steel screen anti-glare systems" being published in the international academic periodical *Journal of Cleaner Production*. From 2006 to 2019, a total of 146 studies have been conducted, 84 of which were completed, 17 review by third parties and 45 simplified;
- **Brazilian Business Network for Life Cycle Analysis:** created six years ago, the Company continues to participate actively in this network. In addition, it became a member of the Life Cycle Initiative (UNEP/SETAC), an international organization specializing in LCA whose members include over 30 companies, academic institutions, consulting firms, research centers, trade associations and other strategic partners;
- **Hackathons in Design for Environment:** realization, for the first time, of two hackathons with Colgate and Kimberly-Clark, for the development of more sustainable packaging for the products of these two brands. LCA was used as a tool to guide the development of these solutions. During the events, more than 20 simplified LCAs were conducted to quantify the environmental impact of the solutions proposed by the Engineering and Design students in order to guide them towards more sustainable options.

**Collection**

*Incentives for the recycling chain*

- **Ser+realizador:** present in all states in which Braskem operates, the project works to foster the social inclusion socioeconomic development of recyclable material collectors and cooperative members by development the national recycling chain. In 2019, 43 cooperatives were benefitted and 28,000 tons of recyclable waste sold to a recycling company.
- **Ser+ & WeCycle:** with the participation and support of Braskem’s legal team, the partnership between Ser+ and the WeCycle platform approved 12 cooperatives to serve as suppliers to the WeCycle platform in 2019.
- **Reciclar e Transformar:** the project works to foster consumer engagement by showcasing the recycling process through simulators. In 2019, 8,234 people were impacted;
- **Volunteer Program and We Care Week:** this project is for Global Volunteer Week, which was held on October 19 to 27, 2019, in which Braskem employees participated in volunteer actions related to the Circular Economy in the communities near the Company’s operations. The initiative had 559 volunteers, 7,500 people were benefitted and 3.7 tons of waste were collected. The Volunteer Program as a whole removed 71 tons from the environment through crowd efforts in parks, rivers and beaches.

**Recycling**
*Start of a new cycle*

- **Recycling Platform:** includes the Company’s efforts in Chemical Recycling, which makes it possible to transform post-consumer plastics into raw materials and chemical products, effectively closing the circular economy, and its efforts in Mechanical Recycling to improve the quality of recycled resins in terms of both application properties as well as properties related to odor, flavor and color. The platform also encompasses the efforts in carbon recycling using emerging technologies for transforming CO<sub>2</sub> into chemical products;
- **Development of chemical recycling technologies:** the company signed a partnership with the Polymer Engineering Laboratory (EngePol) of the Alberto Luiz Coimbra Institute of Engineering Graduate Studies and Research of the Federal University of Rio de Janeiro (COPPE/UFRJ), the SENAI Institute for Innovation in Biosynthetics (SENAI CETIQT) and Cetrel (an environmental services company founded in 1978), jointly with companies from the Camaçari Petrochemical Complex, for tests at the Company’s petrochemical plant slated for the first quarter of 2020;

In recognition of its contribution to sustainable development, the Company received the following accolades during the year:

- **RobecoSAM Yearbook:** selected for the RobecoSAM Yearbook for the sixth straight year (2014-19) as one of the world’s most sustainable companies;
- **CDP Investor:** in March, Braskem was recognized on the A List for 2018 for all three themes covered by the CDP (CDP Climate, CDP Water and CDP Supply Chain), becoming part of a select group of 16 companies among the 7,000 participants to figure on both the Climate and Water lists. The Company consolidated its position as a reference in the management of greenhouse gas emission and of water resources, and for its contribution to the sustainable economy. We are still awaiting the results for 2019;
- **Ecovadis Platform:** continued to be listed for the period from 2016 to 2019 as a Gold supplier on the Ecovadis platform, an international provider of monitoring systems for suppliers that evaluates the environmental, social, governance and compliance practices adopted by companies in its supplier operations and management;
- **B3 Corporate Sustainability Index (ISE):** for the 15<sup>th</sup> straight year, Braskem was included in the B3’s Corporate Sustainability Index (ISE), remaining part of a select group of seven companies that have been a component of the index since its launch;

- **Epoca 360 Yearbook:** Braskem was recognized as the most sustainable chemical company by the Epoca 360 2019 Yearbook; and
- **Global Compact LEAD:** Braskem was recognized, for the eighth straight year, as a leader in Sustainable Development by the UN Global Compact, figuring as the only Brazilian company among the 10,000 member companies.

### **SOCIAL RESPONSIBILITY**

Braskem believes that it is its duty to contribute to the development of the regions in which it operates by creating shared value and promoting the well-being of everyone. Its actions are guided by pillars that direct its Private Social Investment, which are: (i) local development; (ii) sustainable consumption and post-consumption; and (iii) sustainable innovation and entrepreneurship. The Company understands its role in the world and, together with its team members, seeks to act as an agent of change in society as a whole.

Through projects, the Company works to cause positive social impact and to strengthen relations with local communities. In 2019, Braskem directly benefitted over 200,000 people in its various geographies. The highlights include:

- **Social Dialogue in Maceió, AL**

In the last quarter of 2019, Braskem launched a Social Dialogue project in Maceió, Alagoas, which identified 91 stakeholders in the districts of Mutange, Bebedouro and Pinheiro, including community associations, schools, hospitals, government agencies, communication vehicles and community leaders. Of these 91 stakeholders, 58 participated in in-depth interviews in August and September. In addition, 20 new stakeholders were identified during the interviews, of which 16 already have been interviewed.

The goals of the interviews were to: identify expectations; gather perceptions of the current situation; convey Braskem's positioning; minimize conflicts; build a relationship and a foundation for partnerships and joint solutions.

The Social Dialogue made it possible to collect a series of elements present in people's everyday lives in the districts. The next step is to give feedback to the community, and then creating a collaborative action plan to address solutions for the points identified.

- **Traditional peoples:** renewal of the Rede de Maré project, which with Braskem's support since 2015, works with the traditional fishing and shellfish gathering communities on Ilha da Maré, which is located near our operations in Salvador, Bahia. The project promotes the sustainable management of artisanal fishing in the region, the maintenance of local traditional cultures and their ways of subsistence, and the environmental education of the community with a focus on the marine ecosystem;
- **Decent jobs in the value chain:** 1,644 truck drivers and 373 employees from logistics and freight companies participated in awareness raising actions on preventing the sexual exploitation of children and adolescents on the highways, under the Na Mão Certa program of Childhood Brasil, in which Braskem has participated since 2007. The level of engagement represented an increase of 55% in relation to 2018.
- **Social actions in local communities:** in 2019, Braskem worked on various Private Social Investment projects. Over 30 projects focused on Consumption and Post Consumption, Innovation & Sustainable Entrepreneurship and Local Development. Braskem invested around R\$17 million, which generated the following impacts:
  - Beneficiaries
    - 206,000 people;
    - 3,000 planted trees;
    - 2,300 teachers;
    - 29,000 students; and
    - 685 schools.
  - Volunteer work:

- 32,000 hours of work donated;
- 4,600 volunteers;
- 54,000 items donated; and
- 71 tons of waste removed from the environment.

### **CORPORATE GOVERNANCE**

Braskem adopts a management model based on recognized corporate governance practices to ensure its proper functioning in a transparent and sustainable manner. Apart from the Board of Directors and the Audit Board, whose duties are established by Federal Law 6,404/76 and amendments to Federal Law 10,303/01 and which functions as an Audit Committee in accordance with the Securities and Exchange Act of 1934, as amended by the Sarbanes-Oxley Act of 2002 ("SOX"), the Company has four Standing Committees of the Board of Directors. These are: Compliance Committee, Finance & Investment Committee, Strategy & Communication Committee, and People \* Organization Committee. The basic function of these committees is to advise the Board of Directors on pre-established matters.

The evolution in government legislation and rules around the world, especially in anti-corruption laws with extraterritorial jurisdiction, and their application by regulatory and judicial authorities, has demonstrated the importance of constantly reviewing our policies and other business documents that guide the conduct of our team members and serve as the foundation for internal and external relations, with a view to ensuring that Braskem's business activities are conducted lawfully and with independence and integrity.

In this regard, the Board of Directors made efforts throughout 2019 to improve the Corporate Governance System and the Compliance Program, having approved the Policy on Personal Data Privacy and Protection and reviewed the Policies on Indemnities, Compliance System, as well as Legal and Financial Affairs.

Braskem publishes annually the Brazilian Code of Corporate Governance Report (ICVM 586/2017), through which it provides information on its corporate governance practices under the "practice or explain" model.

Key corporate governance practices of Braskem follow:

- Listing on the Level 1 corporate governance segment of the B3 (special listing segment of B3) since February 13, 2003;
- Compliance with other requirements of Level 2 corporate governance and Novo Mercado listing segments of B3, such as 100% tag-along rights for all Braskem shareholders in case of the transfer of control, and a Board of Directors with at least 20% independent members and a unified term of office of up to two years, with re-election permitted. The Board of Directors currently has four 4 independent members, who represent 36% of the entire board;
- Audit Board, whose duties are established by Federal Law 6,404/76 and amendments to Federal Law 10,303/01 and which functions as an Audit Committee in accordance with the Securities and Exchange Act of 1934, as amended by the Sarbanes-Oxley Act of 2002 ("SOX"), notable among them: (i) monitoring and analyzing the process for engaging independent auditors and advising the Board of Directors on their selection and compensation; (ii) analyzing the Recommendations Report drafted by the independent auditors and the reports on internal controls; and (iii) supervising the work of independent auditors and discussing the scope of audit services to be performed, among other things, established in the charter;
- Corporate Policies, which include the policies on: compliance system; anticorruption; management of corporate risks; related parties; dividends; investments; financial; information disclosure and securities trading; sustainable development; insurance and guarantees; health; safety, environment, quality and productivity; personal data privacy and protection; and indemnity;
- Code of Conduct applicable globally, which establishes the values, principles and practices that guide the Company's business conduct;
- Ethics Committee, which assists the Compliance Committee by examining and discussing the findings of investigations into complaints received through the Ethics Line – the exclusive communication channel, with guaranteed confidentiality, through which team members, suppliers, contractors, clients

and other stakeholders can, securely and responsibly, provide information to ensure a safe, ethical, transparent and productive corporate environment;

- Corporate Governance Portal for the Board of Directors, its standing committees and the Audit Board to ensure secure access to the information required to exercise their duties and responsibilities;
- Integration Program for New Directors, which enables new directors to rapidly be trained on the culture, people and business environment of the Company, as well as its Corporate Governance and Compliance System within 30 days of becoming elected. The new directors also receive training on the Company's Code of Conduct, as well as on Brazilian and U.S. anticorruption law;
- Structured and centralized process for managing Braskem's regulatory documentation. This documentation describes, records and discloses the principles and processes at the Company to ensure that actions taken on behalf of Braskem are consistent and in alignment with its values.

### **External Audit**

The Company has a Pre-Approval Policy for Contracting Services that can be provided by the independent auditors, which was formalized and approved by the Board of Directors in the meeting held on June 22, 2005 ("Policy on Audit Services"). The Policy lists the services that may not be provided by the independent auditors (exemplifying a few situations) under penalty of being characterized as a loss of objectivity and independence of the external auditors.

In 2019, the services provided by independent auditors not related to the external audit amounted to R\$2.1 million, equivalent to about 13% of the total audit fees, which included: (i) a review of the sustainability content of the annual report and greenhouse gas inventory; and (ii) a compliance review of the calculation and use of tax credits, income tax and transfer price of the overseas subsidiary.

Pursuant to Article 3 of CVM Instruction 381/2003, the independent auditor KPMG Auditores Independentes (KPMG) declared that it rendered the aforementioned services in strict accordance with accounting standards addressing the independence of independent auditors conducting audits and that they do not represent a situation that could compromise the independence or objectivity required to perform the audit services provided to Braskem and its subsidiaries.

## **9. People Development**

Forging strong ties between people and the organization to ensure that team members' experiences are memorable is a key part of Braskem's People & Organization strategy. Over the course of 2019, Braskem made progress in various programs to foster the integration, development and qualifications of its Team Members, as well as to prepare and develop its leaders. The topics of diversity and inclusion were considered on all project fronts, and investments in digital mindset were supported in all deliveries on the People & Organization front.

Considered the first link in the Human Resources values chain, the Employer Branding cell focused last year on narrowing relations with public universities to strengthen its brand as an employer in order to improve Braskem's visibility to ensure its recognition as an attractive place to work. In Brazil, the highlights were Braskem's participation in 15 college fairs, the innovations in the internship recruiting process (Braskem Stories and Video Challenge) and the launch of the Program Braskem4DFuture, whose main focus is on developing and engaging interest to become spokespersons for Braskem at universities.

As a result of these initiatives, the College Internship Program received 25,084 applications, while the Technical Internship Program received 8,937, for a total of 34,021 applications submitted in 2019. Given the goal of making the recruiting process more inclusive, we conducted actions to target Afro-Brazilian students, which resulted in a significant percentage, of 42%, of submissions from candidates who self-declared as black/*pardo* in the College Internship Program. After the recruiting process, the interns participated in integration activities, in on-site training programs, including the White Belt course and the Petrochemical Chain Knowledge module, and in online activities to develop their behavioral competencies.



For the Recently Graduated Young Professionals (interns effectively hired), three on-site modules were administered at Braskem's various sites in Brazil, which developed their behavioral and business competencies and offered a tour of the plant and innovation laboratory. In 2019, 41 young professionals participated in this program.

For the Production Worker Training program, Braskem contracted 71 interns and 56 trainees, as part of its ongoing strategy to renew the industrial team. Also in 2019, the production worker recruiting process incorporated a new assessment tool that adopts artificial intelligence and matching learning to optimize the process and ensure new hires that are aligned with Braskem's safety and human reliability standards.

In Mexico, 75 interns were contracted and 6 were effectively hired to positions in industrial and support areas as analysts and technicians.

In the United States, as part of the integration process, 113 new Team Members participated in the Culture Integration Training and 7 associates started their careers at the Company. As part of the planning for the startup of the Delta plant, 22 new industrial workers were certified.

Another highlight was the Company receiving the awards Best Companies to Start a Career (Voice S/A) and Best Companies to Work For (Glassdoor).

Braskem also adopted in Brazil a new Recruiting and Selection tool called Guppy, which imparts greater transparency in recruiting processes, in accordance with the recently enacted General Data Protection Law, which further complements the system to match the right person with the right job opening. The advent of this platform considered the importance of increasing team member diversity and reducing the negative impact of unconscious biases in recruiting processes.

As part of our development actions, 60 engineers graduated from the Engineering Competencies Development Program offered in partnership with COPPE/UFRJ. To prepare Team Members for the challenges of the new business scenarios and challenges of industry 4.0, the strategy was launched for assessing Professionals 4.0 at Braskem, which focused on the skills that will be required and on formulating new learning strategies to leverage the performance of people and businesses.

Underpinned by a Lifelong Learning visions, training programs on the subjects of Negotiation & Influence, Project Management and Technical Path in Finance were offered to leaders and other Team Members. In addition to the on-site programs, Braskem also offered development opportunities through distance-learning programs in three environments: the Self-Development Portal, the Learning Management System (LMS) Platform and the Technical Development Platform.

In 2019, the LMS Platform was launched in Europe. On the Self-Development portal, Braskem launched two new learning paths on the Behavioral Economics and the Circular Economy, which cover leadership skills that produce results from a sustainable standpoints and with a focus on engaging people. To complement the online learning paths, the Keep Talking program continued its calendar of in-depth immersions into specific topics. In 2019, we welcomed Ron McLeod, a professor at Heriot-Watt University in Edinburgh, who conducts reflections and programs on Human Reliability around the world.

As part of its strategy to develop Leaders, Braskem created a set of programs structured in accordance with the Leader's development stage. In Brazil, in 2019, 71 New Leaders participated in the on-site Program Welcome to the Next Stage, which targeted team members who are working in leadership positions for the first time at Braskem; another 19 leaders were trained in Remote Leadership; and 208 leaders accessed the Self-Development Portal. In addition, during the year, the training of leaders in the Inclusion and Diversity Program was concluded. In all, 627 managers completed on-site training programs on diversity, inclusion, marginalized groups, privileges and the day-to-day role of leaders in the workplace with the aim of fostering more diverse and inclusive teams.

In Mexico, around 80 Individual Development Plans were prepared for leaders, whose main training topics were critical conversations between leaders and team members, international programs, strategic planning and coaching sessions, for a total of more than 2,618 hours of leadership training. The New Leader Development Program also was launched, which aims to prepare team members for their first transition to leadership.

In the United States, 25 leaders were trained through the Leadership Development.

In addition to maintaining the routine people development activities, Braskem focused intensely on delivering the initiatives under BeUx, which are the set of actions in the movement to better understand how people management practices can be improved.

The main deliveries in 2019 were:

- **New Career Philosophy (BR/US):** to promote dialogue on careers and foster self-knowledge and proactive engagement by team members, 8 meetings with over 500 participants were organized.
- **Insight (Global):** to encourage mutual development and transparency, a global feedback tool was launched, in which team members can request feedback from and give feedback to anyone with whom they interface at work.
- **Boomerang (Global):** to offer development opportunities for team members just starting their careers while strengthening Braskem's global operations, 9 team members participated in the program, which involves performing a short assignment at one of Braskem's international offices or plants.
- **New Layout (BR/MX):** to create more collaborative, shared, welcoming and positive workspace, a new layout was presented for the Company's five floors of corporate building in São Paulo, as well as a common area for team members at the plant in Camaçari.
- **Health/Wellness (MX/US):** given Braskem's commitment to its team members' health, it conducted health and wellness initiatives with nutritional accompaniment at the offices in Mexico, and in the United States it revised its health care plan to offer more benefits to team members.

In addition to the above initiatives, Braskem understood that, to effectively incorporate this new experience, it would have to evolve its culture, reflected on the role that leaders perform in the company and review its performance assessment model. In this sense, over the course of 2019, it conducted various seminars with senior leaders to reflect and discuss the evolving role that leaders play at Braskem, which led to the development of a competencies model based on the dimensions of Self-knowledge, People Management and Business Management. A dedicated working group also was created to review performance management practices in order to further improve meritocracy, fairness and transparency in the appraisal process. Business Sponsors were named to support the People & Organization team in the design and development of these fronts.

In 2019, Braskem's Diversity Program & Inclusion completed five years in Brazil and, to commemorate the date, a special video was launched to reiterate Braskem's goals and efforts in diversity and inclusion. In recognition of its work on the topic, Braskem was featured in the "Exame Diversity Guide" among the 36 other companies in Brazil recognized in the area of Diversity & Inclusion. Braskem also was the winner in the Bronze category in the Women Entrepreneurship Platform (WEP) Awards for UN Women, which recognized good practices in promoting gender equality. It also was recognized in the Women in Leadership Latin America (WILL) Awards as the best Brazilian company in developing actions to leverage the representation and inclusion of women in leadership.

In the United States, 80% of team members underwent training and awareness raising actions on the topic. Through events and communications, we commemorate important dates, such as Martin Luther King Celebration, Pride Month Celebration, Black History Month, Gender Equality, Disability Independence Day, Hispanic Heritage Month and Veteran's Day, to support our efforts to foster a more inclusive culture.

In Mexico, in 2019, this was the first year of the Diversity & Inclusion Program. A survey conducted of all leaders and team members on the topic was conducted that produced inputs on the design and formulation of the strategy for the upcoming steps.

For management, one of the main metrics accompanied by the Company is the voluntary termination rate, which globally stood at 2.5%. In Brazil, the voluntary turnover rate was 1.6% (International: 5.5%). In the case of leaders (G2) globally, the voluntary termination rate was in 2019 was 2.51%; excluding termination due to retirement and permanent international locational/transfer, the rate stood at 2.01%.

**EXHIBIT I**
**Consolidated Statement of Operations**

Income Statement (R\$ million)	2019	2018	Change
CONSOLIDATED	(A)	(B)	(A)/(B)
<b>Gross Revenue</b>	<b>62,284</b>	<b>68,663</b>	<b>-9%</b>
<b>Net Revenue</b>	<b>52,324</b>	<b>58,000</b>	<b>-10%</b>
Cost of Good Sold	(45,680)	(46,553)	-2%
<b>Gross Profit</b>	<b>6,644</b>	<b>11,447</b>	<b>-42%</b>
Selling and Distribution Expenses	(1,783)	(1,689)	6%
(Loss) reversals for impairment of accounts receivable	(7)	44	n.a.
General and Administrative Expenses	(2,224)	(1,793)	24%
Expenses with Research and Technology	(248)	(219)	13%
Investment in Subsidiary and Associated Companies	10	(1)	n.a.
Other Revenues	2,408	1,065	126%
Other Expenses	(4,857)	(549)	n.a.
<b>Operating Profit Before Financial Result</b>	<b>(57)</b>	<b>8,304</b>	<b>n.a.</b>
<b>Net Financial Result</b>	<b>(4,746)</b>	<b>(4,651)</b>	<b>2%</b>
Financial Expenses	(3,872)	(2,984)	30%
Financial Revenues	851	589	44%
Foreign Exchange Variation, net	(1,725)	(2,257)	-24%
<b>Profit Before Tax and Social Contribution</b>	<b>(4,803)</b>	<b>3,653</b>	<b>n.a.</b>
Income Tax / Social Contribution	1,906	(745)	n.a.
<b>Net Profit (Loss)</b>	<b>(2,897)</b>	<b>2,907</b>	<b>n.a.</b>
<b>Attributable to</b>			
Company's shareholders	(2,798)	2,867	n.a.
Non-controlling interest in Braskem Idesa	(99)	41	n.a.

**EXHIBIT II**
**Calculation of Consolidated EBITDA**

EBITDA Statement (R\$ million)	2019	2018	Change
CONSOLIDATED	(A)	(B)	(A)/(B)
<b>Net Profit</b>	<b>(2,897)</b>	<b>2,907</b>	<b>n.a.</b>
Income Tax / Social Contribution	(1,906)	745	n.a.
Financial Result	4,746	4,651	2%
Depreciation, amortization and depletion	3,632	2,991	21%
<i>Cost</i>	2,895	2,781	4%
<i>Expenses</i>	738	210	n.a.
<b>Basic EBITDA</b>	<b>3,576</b>	<b>11,295</b>	<b>-68%</b>
Provisions for the impairment of long-lived assets (provision/reversal)	216	20	n.a.
Results from equity investments	(10)	1	n.a.
Provision for Alagoas	3,383	-	n.a.
Others*	676	-	n.a.
<b>EBITDA</b>	<b>7,840</b>	<b>11,315</b>	<b>-31%</b>
<i>EBITDA Margin</i>	59%	20%	39 p.p.
EBITDA US\$ million	2,008	3,105	-35%

**EXHIBIT III**
**Consolidated Balance Sheet**

ASSETS (R\$ million)	dec/19 (A)	dec/18 (B)	Change (A)/(B)
<b>Current</b>	<b>23,390</b>	<b>21,384</b>	<b>9%</b>
Cash and Cash Equivalents	6,804	5,548	23%
Marketable Securities/Held for Trading	1,688	2,358	-28%
Accounts Receivable	2,286	3,075	-26%
Inventories	7,625	8,487	-10%
Recoverable Taxes	1,238	423	193%
Prepaid expenses	440	774	-43%
Dividends and Interest on Equity	3	1	n.a.
Prepaid expenses	115	239	-52%
Accounts Receivable from related parties	0	0	n.a.
Derivatives	5	28	-83%
Judicial deposit	2,572	0	n.a.
Other Assets	615	452	36%
<b>Non Current</b>	<b>44,739</b>	<b>37,810</b>	<b>18%</b>
Marketable Securities/ Held-to-Maturity	10	10	-3%
Accounts Receivable	21	18	18%
Advances to suppliers	16	31	-48%
Taxes recoverable	2,258	1,369	65%
Income Tax and Social Contribution	240	242	-1%
Deferred Income Tax and Social Contribution	2,663	1,104	141%
Compulsory Deposits and Escrow Accounts	1,509	170	n.a.
Related Parties	0	0	n.a.
Insurance claims	83	63	32%
Derivatives	18	47	-62%
Other Assets	176	190	-7%
Investments	64	66	-3%
Property, Plant and Equipment	32,315	31,760	2%
Intangible Assets	2,762	2,741	1%
Assets right of usage	2,606	0	n.a.
<b>Total Assets</b>	<b>68,129</b>	<b>59,194</b>	<b>15%</b>
LIABILITIES AND SHAREHOLDERS' EQUITY (R\$ million)	dec/19 (A)	dec/18 (B)	Change (A)/(B)
<b>Current</b>	<b>16,216</b>	<b>23,116</b>	<b>-30%</b>
Suppliers	9,117	8,341	9%
Financing	775	737	5%
Braskem Idesa Financing	744	10,505	-93%
Debenture	47	28	68%
Derivatives	49	70	-30%
Salary and Payroll Charges	624	645	-3%
Taxes Payable	323	432	-25%
Income Tax and Social Contribution	35	419	-92%
Dividends	7	672	-99%
Advances from Customers	356	153	132%
Leniency Agreement	363	288	26%
Sundry Provisions	203	192	6%
Other payables	931	623	49%
Provision - geological event in Alagoas	1,450	-	n.a.
Other financial liabilities	517	-	n.a.
Lease	676	10	n.a.
<b>Non Current</b>	<b>47,968</b>	<b>30,167</b>	<b>59%</b>
Suppliers	4	273	-99%
Financing	28,242	24,161	17%
Braskem Idesa Financing	9,237	-	n.a.
Debenture	228	267	-15%
Derivatives	170	162	5%
Taxes Payable	129	86	51%
Accounts payable to related parties	-	-	n.a.
Loan to non-controlling shareholders of Braskem Idesa	2,396	2,184	10%
Deferred Income Tax and Social Contribution	273	325	-16%
Post-employment Benefit	389	206	89%
Contingencies	1,152	965	19%
Leniency Agreement	1,380	1,155	19%
Sundry Provisions	302	233	30%
Provision - geological event in Alagoas	1,933	-	n.a.
Other payables	134	59	126%
Lease	2,001	91	n.a.
<b>Shareholders' Equity</b>	<b>3,945</b>	<b>5,911</b>	<b>-33%</b>
Capital	8,043	8,043	0%
Capital Reserve	232	232	0%
Profit Reserves	1,905	4,673	-59%
Goodwill on acquisition of subsidiary under common control	(488)	(488)	0%
Other results	(4,758)	(5,623)	-15%
Treasury Shares	(50)	(50)	0%
Retained Earnings	0	(0)	n.a.
<b>Company's Shareholders</b>	<b>4,885</b>	<b>6,788</b>	<b>-28%</b>
Noncontrolling Shareholder Interest in Subsidiaries	(941)	(876)	7%
<b>Total Liabilities and Shareholders' Equity</b>	<b>68,129</b>	<b>59,194</b>	<b>15%</b>