

BRASKEM SA  
Form 6-K  
August 16, 2017

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**SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

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**FORM 6-K**

**REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13A-16  
OR 15D-16 OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the month of August, 2017**  
**(Commission File No. 1-14862 )**

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**BRASKEM S.A.**  
*(Exact Name as Specified in its Charter)*

**N/A**  
*(Translation of registrant's name into English)*

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**Rua Eteno, 1561, Polo Petroquimico de Camacari**  
**Camacari, Bahia - CEP 42810-000 Brazil**  
*(Address of principal executive offices)*

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Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F  Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K  
in paper as permitted by Regulation S-T Rule 101(b)(1).

Indicate by check mark if the registrant is submitting the Form 6-K  
in paper as permitted by Regulation S-T Rule 101(b)(7).

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to  
the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes  No

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82- \_\_\_\_\_.

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## BRASKEM MANAGEMENT REPORT 2016

The Management of Braskem S.A. ("Braskem") submits for your consideration this Management Report and corresponding Financial Statements, which are accompanied by the opinions of the Independent Auditors and the Audit Board for the fiscal year ended Dec. 31, 2016.

The year 2016 was marked by uncertainty in the political and economic environments both locally and internationally. In the international scenario, the uncertainties generated by the United Kingdom's exit from the European Union, by the new paradigm of more moderate economic growth in China and by the U.S. presidential elections led to stagnant growth in international trade and lower investment, which also reflected the slower-than-expected growth in the world economy.

In Brazil, according to the latest round of indicators, economic growth was weaker than expected, with the main factor the negative GDP growth in the third quarter due primarily to lower borrowing, given the higher levels of debt held by households and businesses. This context, combined with the persistent bottlenecks contributing to Brazil cost and the prolonged political and institutional crisis, affected the country's economy and consequently demand for resins in the Brazilian market.

### Brazil:

In this scenario, Brazil's resin demand reached approximately 4,888 kton, decreasing 1% from 2015. Braskem, following the contraction in the Brazilian market, posted total sales volume in the year of 3,339 kton, with its PE, PP and PVC market share in Brazil remaining stable at 69%.

To mitigate this contraction, Braskem continued to dedicate efforts to identifying new opportunities in the international market to take advantage of its sales team and international sales offices, and set a new record for resin exports of 1.7 million tons, representing growth of 24% on the prior year.

The year was marked by the higher availability of feedstock at the Rio de Janeiro cracker, which in 2016 registered an average capacity utilization rate of 87%, up 12 p.p. from 2015. The higher capacity utilization supported a 2% increase in polyethylene production in the year.

The oil price averaged US\$43/barrel in 2016 or 17% lower than the average price in 2015. The lower oil price led to an average naphtha price in the international market of US\$385/ton in 2016, compared to the average price in the prior year of US\$462/ton. Ethane, the feedstock

used by the Rio de Janeiro cracker, registered an average U.S. Gulf price reference of US\$146/t (US\$20 cts/gal), an increase of 7% on the prior year, which further weakened the competitive advantage of gas-based producers over naphtha-based producers.

The average spread in the international market of the thermoplastic resins produced by Braskem in Brazil remained at healthy levels, reaching US\$677/ton, down 3% from the average spread in the prior year.

At the units in Brazil, the Company focused its efforts on maintaining operational and commercial efficiency, while exporting any volumes not sold locally, especially to Mercosur. As a result, the Brazilian units, including exports, posted EBITDA in the year of R\$8,478 million, which represents a new record for resin and basic petrochemical production and export volume.

United States and Europe:

During the year, the average U.S. Gulf (USG) price reference for propylene was US\$759/ton, down 12% on the prior year, given the higher supply of propylene in the market following the startup of a propane-based propylene production unit in the region.

In this scenario, PP spreads in the United States stood at US\$702/ton in the year, an increase of 24% on the prior year, which was influenced by the higher feedstock supply and the stronger PP demand in the U.S. market.

The units in the United States and Europe registered a capacity utilization rate of 100% in 2016, up 2 p.p. on the prior year, which mainly reflects the project to optimize PP grades implemented over the year and the strong demand for the resin in both regions.

A highlight was the commissioning of the plant producing ultra-high molecular weight polyethylene in La Porte, Texas, to better serve clients in North America and Europe. Another highlight was the investments made to debottleneck the PP plant in Marcus Hook, Pennsylvania that increased the plant's nameplate capacity to 64 kton per year.

In 2016, the operations in the United States and Europe contributed significant results, with record EBITDA of US\$698 million (R\$2,474 million), which is 120% higher year over year and represented 21% of the Company's consolidated segments. The result was mainly due to the Company's strategy to ensure its operating and commercial efficiency, which enabled the units to register a capacity utilization rate of 100%, and to take advantage of market opportunities given the strong demand for PP in the regions.

#### Mexico:

In 2016, the Company achieved an important milestone with the startup of the petrochemical complex in Mexico, which is still in the ramp-up phase. In March, the cracker was started and the ethylene specified; in April, the first PE line started operations; and in June, the three polyethylene plants already were operational. In the second quarter of the year, the PE plants operated at a capacity utilization rate of 32% and, by the fourth quarter, the PE plants had ramped up to a capacity utilization rate of 73%.

In the year, the Mexico unit posted EBITDA of US\$163 million (R\$530 million), with the PE plants registering an average capacity utilization rate of 42%, in line with the Company's estimate.

In the year, the Company's efforts at the Mexico unit were focused on (i) ensuring the stability of the petrochemical complex's production; (ii) growing sales in the Mexican market and strengthening relations with local clients; and (iii) exporting products in synergy with the Braskem operations in other regions.

#### Braskem – Consolidated:

In 2016, Braskem posted record EBITDA in Brazilian real and U.S. dollar of R\$11,507 million and US\$3,301 million, representing growth of 23% and 18%, respectively, on the prior year. The improvement is mainly due to (i) the good operating performance; (ii) healthy resin spreads in the international market; (iii) higher export sales volume from Brazil; (iv) performance of the operations in the United States and Europe; (v) the Mexico complex beginning to contribute its result; and (vi) the 5% average Brazilian real depreciation.

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In the year, with the continued progress on Braskem's international expansion, 47% of its net revenue (ex-resale of naphtha and condensate) came from international markets, reflecting the exports from Brazil and the operations in the United States, Germany and Mexico.

In 2016, Braskem posted a consolidated net loss of R\$729 million, of which R\$411 million is attributable to the parent company.

Reflecting the Company's solid cash generation and commitment to financial health, corporate leverage, as measured by the ratio of Net Debt to EBITDA in U.S. dollar, stood at 1.67, down 12% from the prior year, reflecting the US\$146 million decrease in net debt in U.S. dollar combined with the 11% increase in EBITDA in the last 12 months.

Over the year, Braskem remained engaged in implementing its cost-reduction program, which by year-end had delivered an effective gain of R\$368 million and a recurring gain of R\$395 million, with completion of 66% of the planned initiatives. The gains are distributed in the following categories: reduction in fixed and variable costs and optimization of investments.

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Another highlight in the period was the conclusion of the global settlement with Brazil's Federal Prosecution Office ("MPF"), the U.S. Department of Justice ("DoJ"), the U.S. Securities and Exchange Commission ("SEC") and the Swiss Office of the Attorney General to resolve reports of wrongdoings involving the Company, in connection with Operation Car Wash. Under the global agreement, the Company will pay the applicable authorities in Brazil and abroad approximately US\$957 million, equivalent to approximately R\$3.1 billion.

As part of its contribution to sustainable development, Braskem remains focused on finding solutions to mitigate risks and on creating shared value. In this respect, Braskem operates on three fronts: (i) increasingly sustainable operations; (ii) increasingly sustainable products; and (iii) solutions for a more sustainable life.

Braskem's commitment to sustainable development also supported important internal achievements and external recognition in 2016. Braskem was named a Climate Leader by the Carbon Disclosure Project Brazil and became the first Brazilian company to be included on the "A" List of CDP Investor. The Company also confirmed its inclusion in the 12<sup>th</sup> portfolio of the Corporate Sustainability Index (ISE) of the São Paulo Stock Exchange (BM&FBovespa) and was included for the fifth straight time in the Dow Jones Sustainability Emerging Markets Index.

#### Acknowledgements:

Management once again takes this opportunity to thank its Clients for the trust they place in Braskem, since this partnership motivates us to always follow a path of excellence, and to thank our Team Members, Partnership and Suppliers for their dedication and competence, which are critical to ensuring our accomplishments and results. We also thank our Shareholders for their support in ensuring the feasibility of our strategic projects, which are fundamental to strengthening the Company.

Despite the consistent downward path in inflation and the increase in investor confidence in recent months, the same macroeconomic challenges of 2016 remain in place in 2017.

Although a recovery in economic growth is expected in 2017, the consensus expectation is calling for gradual and slow growth. According to the Central Bank report of December 2016, industrial activity in Brazil should grow by 0.6% in 2017, with the GDP growth forecast for the year revised downward from 1.3% to 0.8%.

In the international market, according to the International Monetary Fund (IMF), the outlook improved for advanced economies in 2017 and 2018, given the stronger economic activity registered in the second half of 2016 and expectation of fiscal stimulus in the United States.

For emerging markets and developing economies in general, the growth outlook worsened marginally, with an upward revision for China given the expectation of economic stimulus and downward revisions for countries like Mexico given the uncertainties associated with the North American election.

In the oil market, the expectation is for OPEC members to maintain their agreement and other

producers to limit global supply, which could support higher oil prices and consequently boost the competitiveness of gas-based producers in relation to naphtha-based ones.

In the petrochemical industry, new polyethylene capacities coming online in the United States as of end-2017 and mainly in 2018 could pressure polyethylene spreads in the international market in the period, with a recovery expected as of 2019. For other resins (PP and PVC), the expectations are calling for stability in spreads at sustainable levels, especially in the U.S. market for PP, where no new capacity is expected before the end of the decade.

In this scenario, the Company's strategy will be to focus on: (i) diversifying its feedstock profile and geographic footprint to mitigate the volatility of the petrochemical cycle; (ii) exports, while capturing synergies across Braskem's units and commercial offices; (iii) strengthening its petrochemical operations by ensuring high operating efficiency, productivity and competitiveness at units in all regions, with the highlight the stabilization of production at the Mexico complex; (iv) seeking new opportunities for growth

in PP based on competitive propylene feedstock in the United States; (v) continually enhancing its compliance program and governance practices; while maintaining its financial health and cost discipline.

## § **BRAZIL**

In 2016, Braskem's results in Brazil were formed by the following segments: Basic Petrochemicals, Polyolefins, Vinyls and Chemical Distribution.

### **BASIC PETROCHEMICALS**

The Basic Petrochemicals segment is formed by and operates four petrochemical complexes (Camaçari, Triunfo, São Paulo and Rio de Janeiro) producing olefins, aromatics and utilities.

These units have total annual ethylene production capacity of 3,952 kton, of which approximately 78% is naphtha-based, 16% is gas-based and the remainder is ethanol-based. Of the total ethylene produced by the Basic Petrochemicals Unit, around 80% is transferred for use by Braskem's Polyolefins and Vinyls segments.

Total annual propylene production capacity is 1,585 kton, of which approximately 65% on average is transferred for use by the Company's Polyolefins segment.

The following table provides a financial overview of this segment:

Financial Overview (R\$ million)	2016	2015	Change
<b>BASIC PETROCHEMICALS</b>	(A)	(B)	(A)/(B)
<b>Net Revenue</b>	<b>25,063</b>	<b>24,270</b>	<b>3%</b>
Cost of Good Sold	(20,266)	(20,053)	1%
<b>Gross Profit</b>	<b>4,796</b>	<b>4,217</b>	<b>14%</b>
<b>Gross Margin</b>	<b>19%</b>	<b>17%</b>	<b>2 p.p.</b>
SG&A	(698)	(659)	6%
Other Operating Income (expenses)	(374)	(178)	110%
<b>EBITDA</b>	<b>4,910</b>	<b>4,440</b>	<b>11%</b>
<b>EBITDA Margin</b>	<b>20%</b>	<b>18%</b>	<b>2 p.p.</b>

### **Capacity Utilization:**

In 2016, Braskem's crackers operated at an average capacity utilization rate of 92%, an increase of 3 p.p. from 2015, which is mainly explained by: (i) the good operating



performance of the crackers, in line with the Company's strategy to ensure its operating efficiency in order to serve the Brazilian market, while exporting any volumes not absorbed; and (ii) the higher availability of feedstock at the gas-based cracker in Rio de Janeiro.

**Production:**

Due to the good operating performance, the production of basic petrochemicals in 2016 amounted to 8.5 million tons, increasing 3% from 2015 and setting a new record for the Company. In the year, ethylene production also set a new record and posted growth of 3% on the prior year.

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Performance (tons) BASIC PETROCHEMICALS	2016 (A)	(B)	Change (A)/(B)
<b>Production</b>			
Ethylene	3,459,861	3,357,077	3%
utilization rate	92%	89%	3 p.p.
Propylene	1,400,466	1,389,796	1%
Cumene	193,936	203,079	-5%
Butadiene	411,688	389,273	6%
BTX*	1,000,489	981,570	2%
Others	2,018,037	1,901,254	6%
Total Production	8,484,476	8,222,049	3%

BTX\* - Benzene, Toluene and Paraxylene

**Internal Transfers:** The Basic Petrochemicals segment transfers mainly ethylene to the Vinyls segment and ethylene and propylene to the Polyolefins segment.

Performance (tons) BASIC PETROCHEMICALS	2016 (A)	2015 (B)	Change (A)/(B)
<b>Transfers</b>			
Ethylene	2,856,541	2,793,531	2%
Propylene	1,022,070	987,280	4%
Total Transfers	3,878,611	3,780,810	3%

### **Sales Volume – Brazilian Market:**

In 2016, sales volume of key basic petrochemicals to third parties was 1.8 million tons, setting a record and up 5% from 2015.

Performance (tons) BASIC PETROCHEMICALS	2016 (A)	2015 (B)	Change (A)/(B)
<b>Sales - Brazilian Market</b>			
Ethylene	511,865	485,761	5%
Propylene	291,311	246,081	18%
Cumene	194,472	206,035	-6%
Butadiene	198,451	220,109	-10%
BTX*	676,958	631,466	7%
Total Brazilian Market	1,873,057	1,789,453	5%

BTX\* - Benzene, Toluene and Paraxylene

### **Net Revenue – Domestic Market:**

In 2016, net revenue from domestic sales in Brazil came to R\$19,490 million (including R\$10,775 million from sales<sup>1</sup> to the Polyolefins and Vinyls units), increasing 1% compared to 2015. The increase is mainly explained by the higher sales by volume of basic petrochemicals to third parties, with the highlight the redirecting of gasoline sales to the domestic market, which grew by 66% from the prior year.

In U.S. dollar, net revenue came to US\$5,615 million, down 4% from the previous year, mainly due to the lower prices for key basic petrochemicals in the international market, which were partially offset by the 5% depreciation in the Brazilian real between periods.

**Sales Volume – Export Market:**

In 2016, exports of key basic petrochemicals reached 705 kton, down 7% from 2015, which is mainly explained by the substitution of propylene export volumes to supply to a client in the acrylics complex in

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[1] Sales of Basic Petrochemicals to the Polyolefins and Vinyls units are presented here on a managerial basis solely to show the result allocated to each segment.

Bahia and by the higher volume of transfers to the Polyolefins segment to produce PP, with these factors partially offset by the higher exports of benzene and butadiene.

Performance (tons)	2016	2015	Change
BASIC PETROCHEMICALS	(A)	(B)	(A)/(B)
<b>Sales - Export Market</b>			
Ethylene	64,193	62,859	2%
Propylene	79,312	170,454	-53%
Butadiene	213,666	165,404	29%
BTX*	347,498	356,195	-2%
Total Exports	704,670	754,911	-7%
BTX* - Benzene, Toluene and Paraxylene			

### Net Revenue - Export Market:

In 2016, net revenue from exports came to R\$5,572 million, up 13% from 2015, mainly due to: (i) the depreciation in the Brazilian real in the period; (ii) the higher sales volume and better international price references for certain basic petrochemicals, especially butadiene. In U.S. dollar, net revenue from exports was US\$1,627 million, increasing 11% from 2015.

**COGS:** naphtha, HLR (refinery gas), ethane and propane are the main feedstock used by the Basic Petrochemicals segment to produce olefins and aromatics. Petrobras supplies 100% of the HLR, 100% of ethane, 95%, on average, of propane, around 70% of the naphtha consumed by Braskem, with the remainder met by imports from various suppliers.

In 2016, COGS was R\$20,266 million, up 1% from 2015, mainly due to the higher total production volume and the 5% depreciation in the Brazilian real between the periods, with these factors partially offset by the lower prices for key feedstock in the international market.

In 2016, the ARA naphtha price averaged US\$385/ton, down 17% from 2015, explained by lower oil prices. The decrease mainly reflects (i) the higher U.S. production and uncertainties concerning the impact of OPEC on global supply; (ii) higher inventories, especially in the U.S. Gulf region; and (iii) lower demand for fuel production.

Regarding the supply of naphtha in the Brazilian market (average of n-1 quote), the international price reference averaged US\$379/ton in 2016, decreasing 23% from 2015 (when the average price was based on the three-month moving average).

In 2016, the USG price reference for ethane, the feedstock used by the Rio de Janeiro cracker, averaged 20¢/gal US\$146/ton), increasing 7% from 2015, explained by the stronger demand resulting from logistics debottlenecking projects, which supported higher export volumes.

Meanwhile, the USG price reference for propane in 2016 averaged 48¢/gal (US\$252/ton), increasing 7% from 2015, which is explained by the equalization of inventories given the higher consumption by dehydrogenation (PDH) units, the stronger export volumes from the USA and the stability in PP production volume. In U.S. dollar, COGS at the Basic

Petrochemicals Unit amounted to US\$5,856 million in 2016, down 3% from 2015.

**SG&A Expenses:**

In 2016, selling, general and administrative expenses amounted to R\$698 million, up 6% from 2015, which is explained by the higher total sales volume and increased logistics costs, primarily with exports.

**EBITDA:**

In 2016, the Basic Petrochemicals Unit posted EBITDA of R\$4,910 million, an increase of 11% on 2015, which is mainly explained by the higher total sales volume, better spreads for certain petrochemical products and the Brazilian real depreciation between periods. In U.S. dollar, EBITDA amounted to US\$1,415 million, up 7% from 2015.

## POLYOLEFINS

The Polyolefins segment is formed by 18 industrial plants in Brazil producing polyethylene (PE) and polypropylene (PP), which includes the production of Braskem's Green PE from renewable feedstock.

The industrial operations consist of the PE and PP plants located in the petrochemical complexes of Triunfo, Camaçari, São Paulo, Paulínia, and Rio de Janeiro, which have combined annual production capacity of 3,055 kton of PE, with 200 kton of Green PE and 1,850 kton of PP.

The following table provides a financial overview of the Polyolefins unit:

Financial Overview (R\$ million)	2016	2015	Change
POLYOLEFINS	(A)	(B)	(A)/(B)
<b>Net Revenue</b>	<b>20,307</b>	<b>19,986</b>	<b>2%</b>
Cost of Good Sold	(16,041)	(15,461)	4%
<b>Gross Profit</b>	<b>4,266</b>	<b>4,525</b>	<b>-6%</b>
<b>Gross Margin</b>	<b>21%</b>	<b>23%</b>	<b>-2 p.p.</b>
SG&A	(1,304)	(1,225)	6%
Other Operating Income (expenses)	(120)	(131)	-8%
<b>EBITDA</b>	<b>3,291</b>	<b>3,647</b>	<b>-10%</b>
<b>EBITDA Margin</b>	<b>16%</b>	<b>18%</b>	<b>-2 p.p.</b>

### Capacity Utilization:

In 2016, the PE plants operated with an average capacity utilization rate of 89%, up 2 p.p. from 2015, influenced mainly by the better performance of the plants in the states of Sao Paulo and Rio de Janeiro.

The PP industrial units operated with an average capacity utilization rate of 86% in 2016, up 10 p.p. from 2015, influenced by the better performance of the plants in Sao Paulo state and the Rio de Janeiro complex, given the higher supply of propylene to the Basic Petrochemicals segment.

### Production:

With the higher average capacity utilization rate, production by the Polyolefins segment came to 4,301 kton in 2016, setting a new PE production record.

Performance (tons)	2016	2015	Change
POLYOLEFINS	(A)	(B)	(A)/(B)
<b>Production</b>			
PE's	2,708,466	2,648,819	2%
utilization rate	89%	87%	2 p.p.
PP	1,592,474	1,510,363	5%
utilization rate	86%	76%	10 p.p.
Total Production	4,300,940	4,159,182	3%
Utilization rate does not comprises capacity of the hibernated PP plant in Bahia from 1Q16 onwards			

### **Brazilian Market:**

In 2016, the polyolefins market (PE and PP) was estimated at 3.9 million tons, the same level as in 2015. The positive highlights in the year were the performance of the agricultural packaging industry, the launch by Braskem of new products (Flexus Cling, Amppleo) and the creation of the WeCycle platform, an initiative to value plastic waste along the production chain through projects developed by the Company.

**Sales Volume – Brazilian Market:** In the year, sales volume in Brazil decreased 1% from 2015, with market share of 73%, in line with the previous year.

Performance (tons) POLYOLEFINS	(A)	2015 (B)	Change (A)/(B)
<b>Sales - Brazilian Market</b>			
PE's	1,705,462	1,705,877	0%
PP	1,105,675	1,126,949	-2%
Total Brazilian Market	2,811,137	2,832,827	-1%

#### **Net Revenue – Domestic Market:**

In 2016, net revenue came to US\$4,008 million, down 6% from 2015, mainly due to the lower PP prices in the international market. In Brazilian real, net revenue amounted to R\$13,903 million, or 1% lower than in 2015.

#### **Sales Volume – Export Market:**

In the year, the polyolefins unit exported 1,590 kton, or 22% more than in 2015, led by exports of PP, mainly to South America and Europe, and the higher PE exports to northern South America, as a strategy to support the startup of the Mexico complex.

Performance (tons) POLYOLEFINS	2016 (A)	2015 (B)	Change (A)/(B)
<b>Sales - Export Market</b>			
PE's	1,024,233	921,044	11%
PP	566,255	386,150	47%
Total Exports	1,590,488	1,307,193	22%

#### **Net Revenue – Export Market:**

In 2016, net revenue from exports was 3% and 8% higher than in 2015 in U.S. dollar and Brazilian real, respectively. The higher sales volume and Brazilian real depreciation offset the lower average prices in the international market.

**COGS:** ethylene and propylene are the main feedstock used to make PE and PP, respectively. For PE production, 100% of the ethylene used is supplied by the Basic Petrochemicals Unit, as is 65% of the propylene used to make PP, with the remainder supplied by Petrobras.

In 2016, cost of goods sold (COGS) of the Polyolefins Unit amounted to R\$16,041 million, increasing 4% compared to 2015. The lower feedstock prices were insufficient to offset the higher sales volume and Brazilian real depreciation. The average price reference for ethylene in the U.S. Gulf (USG) was US\$759/ton, while the international price reference for Europe (NWE) averaged US\$1,005/ton, down 12% and 6%, respectively, from 2015.

#### **SG&A Expenses:**

Selling, general and administrative expenses amounted to R\$1,304 million in 2016, increasing



6% compared to 2015, influenced by the higher sales volumes.

**EBITDA:**

In 2016, EBITDA amounted to R\$3,291 million, down 10% from 2015. The lower international spreads were partially offset by the higher sales volume combined with the Brazilian real depreciation. In U.S. dollar, EBITDA contracted 14% to US\$947 million, with EBITDA margin of 16%, down 2 p.p. from 2015.

**VINYLS**

The Vinyls segment is formed by the industrial and commercial operations of the PVC, Chlorine and Caustic Soda units, as well as other products such as hydrogen and sodium hypochlorite.

The industrial operations include three PVC plants located in the petrochemical complexes in Camaçari and Alagoas and the two chlor-alkali plants located in the same two petrochemical complexes.

The Company's annual production capacity is 710 kton of PVC and 539 kton of caustic soda.

The following table provides a financial overview of the Vinyls unit:

Financial Overview (R\$ million)	2016	2015	Change
VINYLS	(A)	(B)	(A)/(B)
<b>Net Revenue</b>	<b>3,016</b>	<b>2,780</b>	<b>9%</b>
Cost of Good Sold	(2,834)	(2,416)	17%
<b>Gross Profit</b>	<b>183</b>	<b>364</b>	<b>-50%</b>
<b>Gross Margin</b>	<b>6%</b>	<b>13%</b>	<b>-7 p.p.</b>
SG&A	(241)	(225)	7%
Other Operating Income (expenses)	(49)	(27)	83%
<b>EBITDA</b>	<b>241</b>	<b>355</b>	<b>-32%</b>
<b>EBITDA Margin</b>	<b>8%</b>	<b>13%</b>	<b>-5 p.p.</b>

### Capacity Utilization:

In 2016, the average capacity utilization of the PVC plants stood at 84%, up 7 p.p. from 2015.

### Production:

Performance (tons)	2016	2015	Change
VINYLS	(A)	(B)	(A)/(B)
<b>Production</b>			
PVC	594,039	542,297	10%
utilization rate	84%	76%	7 p.p.
Caustic Soda	440,907	436,185	1%
Total Production	1,034,945	978,482	6%

### Brazilian Market:

In 2016, the Brazilian market for PVC contracted by 2% from the previous year, due to weaker activity in the construction and infrastructure sectors.

### Sales Volume – Brazilian Market:

In 2016, sales in the Brazilian market amounted to 528 kton, in line with 2015, with the highlight the sales made to the agribusiness sector (irrigation tubing). Market share expanded to 52%, up 1 p.p. from 2015.

Performance (tons)	2016	2015	Change
VINYLS	(A)	(B)	(A)/(B)
<b>Sales - Brazilian Market</b>			
Brazilian Market - PVC	1,023,867	1,048,053	-2%

Braskem Sales	528,314	529,493	0%
Market Share	52%	51%	1 p.p.

**Net Revenue – Domestic Market:**

In 2016, net revenue from domestic sales of vinyls increased 4% compared to 2015, to R\$2,695 million. In U.S. dollar, net revenue was US\$778 million, 1% lower.

**Sales Volume – Export Market:**

In the year, exports increased by 79% from 2015, influenced by the Company’s strategy to export part of its PVC production given the weaker demand in the domestic market.

Performance (tons)	2016	2015	Change
VINYLS	(A)	(B)	(A)/(B)
<b>Sales - International Market</b>			
PVC	116,919	65,375	79%
Total Exports	116,919	65,375	79%

### **Net Revenue - Export Market:**

Net revenue from the PVC exports grew 69% and 65% compared to 2015 in U.S. dollar and Brazilian real, respectively, amounting to US\$92 million and R\$321 million.

**COGS:** Ethylene, energy and salt are the main inputs used by the Vinyls segment to produce caustic soda, chlorine and PVC. The ethylene is 100% supplied by the Basic Petrochemicals segment. In salt consumption, Braskem holds significant cost advantages over some competitors thanks to its low-cost extraction of sodium chloride (especially compared to sea salt) and low transportation costs, given its industrial unit's proximity to the salt mine.

In 2016, cost of goods sold (COGS) amounted to R\$2,834 million, up 17% from 2015, mainly explained by the Brazilian real depreciation and the higher production volume and sales of vinyls in the period.

### **SG&A Expenses:**

Selling, general and administrative expenses amounted to R\$241 million in 2016, increasing 7% compared to 2015, influenced by the higher sales volumes.

### **EBITDA:**

In the year, EBITDA from the Vinyls segment amounted to R\$241 million, down 32% from 2015. In U.S. dollar, EBITDA contracted 35% to US\$69 million, with EBITDA margin of 8%, down 5 p.p. from 2015.

### **CHEMICALS DISTRIBUTION (quantiQ):**

The chemicals distribution segment has a portfolio of more than 1,500 products. The products are classified as commodities, performance and specialties.

The following table presents a financial overview of the Chemicals Distribution unit:

Financial Overview (R\$ million)	2016	2015	Change
CHEMICALS DISTRIBUTION	(A)	(B)	(A)/(B)

<b>Net Revenue</b>	<b>831</b>	<b>875</b>	<b>-5%</b>
Cost of Good Sold	(667)	(693)	-4%
<b>Gross Profit</b>	<b>164</b>	<b>182</b>	<b>-10%</b>
<b>Gross Margin</b>	<b>20%</b>	<b>21%</b>	<b>-1 p.p.</b>
SG&A	(133)	(123)	8%
Other Operating Income (expenses)	(1)	(5)	-87%
<b>EBITDA</b>	<b>36</b>	<b>59</b>	<b>-40%</b>
<b>EBITDA Margin</b>	<b>4%</b>	<b>7%</b>	<b>-3 p.p.</b>

### Net Revenue:

Despite the higher sales volume influenced primarily by the better performance of the commodities segment, which includes products such as methanol and caustic soda, net revenue in the year decreased 9% from 2015, to US\$239 million. In Brazilian real, net revenue was R\$831 million, down 5% from 2015.

**COGS:** The main cost of the Chemicals Distribution Unit is the acquisition of products. In the year, cost of goods sold amounted to R\$667 million, down 4% from 2015.

**EBITDA:**

In 2016, EBITDA came to US\$10 million, down 43% from the prior year. In Brazilian real, EBITDA contracted 40% to R\$36 million, with EBITDA margin of 4%, down 3 p.p. from 2015.

**§ INTERNATIONAL BUSINESS**

Braskem's overseas results are formed by the polypropylene plants and commercial operations in the United States and Europe and by Braskem Idesa, the petrochemical complex in Mexico.

**UNITED STATES AND EUROPE**

The segment's results are formed by five industrial plants in the United States and two in Europe, with aggregate annual production capacity of 2,010 kton, with 1,465 kton in the United States and 545 kton in Europe.

In 2016, the segment posted net revenue of R\$8,896 million (US\$2,548 million) and EBITDA of R\$2,474 million (US\$698 million), representing 18% and 21%, respectively, of the Company's consolidated revenue and EBITDA.

The following table provides a financial overview of the United States and Europe segment:

<b>Financial Overview (US\$ million)</b>	<b>2016</b>	<b>2015</b>	<b>Change</b>
<b>UNITED STATES AND EUROPE</b>	<b>(A)</b>	<b>(B)</b>	<b>(A)/(B)</b>
<b>Net Revenue</b>	<b>2,548</b>	<b>2,478</b>	<b>3%</b>
Cost of Good Sold	(1,750)	(2,093)	-16%
<b>Gross Profit</b>	<b>798</b>	<b>384</b>	<b>108%</b>
<b>Gross Margin</b>	<b>31%</b>	<b>16%</b>	<b>15.8 p.p.</b>
SG&A	(162)	(134)	21%
Other Operating Income (expenses)	(3)	(2)	12%
<b>EBITDA</b>	<b>698</b>	<b>317</b>	<b>120%</b>
<b>EBITDA Margin</b>	<b>27%</b>	<b>13%</b>	<b>14.6 p.p.</b>
Net Revenue - R\$ million	8,896	8,240	8%
EBITDA - R\$ million	2,474	1,110	123%

**Capacity Utilization:**

The units in the United States and Europe registered a capacity utilization rate of 100% in 2016, up 2 p.p. on the prior year, which mainly reflects: (i) the project to optimize PP grades implemented over the year; and (ii) the strong demand for the resin in both regions.

**Production:**

Performance (tons) UNITED STATES AND EUROPE	2016 (A)	2015 (B)	Change (A)/(B)
<b>Production</b>			
PP	2,007,179	1,967,028	2%
utilization rate	100%	98%	2 p.p.

**Market:**

Sales of domestic production in the U.S. market for PP contracted by around 2% in 2016 compared to 2015, due to the higher volume of PP imports, mainly from South Korea and Saudi Arabia. The sectors most impacted by the increase in imports were housewares, carpets and biaxially oriented films, or BOPP (used in labels, tags and food packaging).

In Europe, PP demand remained strong throughout 2016, increasing 4% from the previous year. The increase was driven mainly by demand from the automotive industry and economic recoveries in European countries. This scenario supported the highest margins by non-integrated producers of the last nine years.

### **Sales Volume:**

In 2016, PP sales volume increased 2% from the previous year, due to the better operating performance of the units and the higher demand for PP in the United States and Europe.

	Performance (tons) UNITED STATES AND EUROPE	2016 (A)	2015 (B)	Change (A)/(B)
<b>Sales</b>				
PP		2,008,473	1,973,274	2%

### **Net Revenue:**

In 2016, net revenue came to US\$2,548 million, up 3% from the prior year, supported by the higher PP prices in the U.S. market and the stronger sales volume.

**COGS:** The main feedstock used to make PP in the United States and Europe is propylene, which is supplied to the Company's industrial units by various local producers.

In 2016, cost of goods sold (COGS) of the segment amounted to US\$1,750 million, down 16% compared to 2015.

The U.S. Gulf (USG) price reference for propylene averaged US\$759/ton in 2016, or 12% lower than in 2015, due to the feedstock's higher supply in the year from PDHs, which, despite some operating difficulties in the second half, operated at higher capacity utilization rates than in the prior year.

The Europe reference price for propylene averaged US\$727/ton, down 23% from 2015, mainly reflecting the limited supply during most of 2015, when low inventories and an above-normal number of unscheduled shutdowns led to price increases.

### **SG&A Expenses:**

In 2016, selling, general and administrative expenses were US\$162 million, increasing 21% from 2015, influenced by: (i) higher expenses with the feasibility studies for strategic projects; (ii) higher costs with the leasing of freight cars for transporting PP; and (iii) the expenses with external audits.

### **EBITDA:**

EBITDA in the year was US\$698 million, up 120% from 2015, explained by the higher PP-propylene spreads in the international market, which reached 24% for the U.S. price reference and 16% for the European price reference, coupled with the good operating



performance of plants. In Brazilian real, EBITDA was R\$2,474 million.

## **MEXICO [2]**

The segment is composed of an ethane-based cracker, two high-density (HDPE) and one low-density (LDPE) polyethylene plants, with combined annual production capacity of 1,050 kton of PE.

Since May 2016, the result of Braskem Idesa is no longer recorded as a project, but as a reportable operating segment, except for the result of the LDPE plant, which ceased to be considered a project in August.

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[2] This unit includes the results of Braskem Idesa SAPI and of the other subsidiaries of Braskem S.A. in Mexico.

The following table provides a financial overview of the Mexico unit in Brazilian real and U.S. dollar:

Financial Overview (US\$ million)	2016	2015	Change
MEXICO	(A)	(B)	(A)/(B)
<b>Net Revenue</b>	<b>474</b>	-	<b>0%</b>
Cost of Good Sold	(302)	-	0%
<b>Gross Profit</b>	<b>173</b>	-	<b>0%</b>
<b>Gross Margin</b>	<b>36%</b>	<b>0%</b>	<b>0.0 p.p.</b>
SG&A	(73)	-	0%
Other Operating Income (expenses)	(38)	-	0%
<b>EBITDA</b>	<b>163</b>	-	<b>0%</b>
<b>EBITDA Margin</b>	<b>34%</b>	<b>0%</b>	<b>0.0 p.p.</b>
Net Revenue - R\$ million	1,587	-	0%
EBITDA - R\$ million	530	-	0%

\*Includes pre-marketing activities recorded in the period.

### Production and Capacity Utilization:

Still in the ramp-up phase, the PE plants operated in the year at an average capacity utilization rate of 42%, producing 443 kton of PE.

Performance (tons)	2016	2015	Change
MEXICO	(A)	(B)	(A)/(B)
<b>Production</b>			
PE	443,180	-	<i>n.a</i>
utilization rate	42%	0%	<i>n.a</i>

### Sales Volume:

PE sales in the year came to 432 kton, which include resin resale to serve the Mexican market with grades not yet produced during the ramp-up phase. Of the total sales volume, 46% was sold in the Mexican market and the remainder exported to various regions, in particular Asia, Europe and the United States.

Performance (tons)	2016	2015	Change
MEXICO	(A)	(B)	(A)/(B)
<b>Sales</b>			
PE	431,652	-	<i>n.a</i>

### Net Revenue:

In 2016, net revenue came to US\$474 million (R\$1,587 million). The sales price of Braskem Idesa's PE in the Mexican market is based on the price of resins sold in the U.S. Gulf region. In the year, the average price [3] stood at US\$1,115/ton, down 9% from 2015, accompanying the decline in oil prices, which in turn reduced the marginal cost of PE production.

**COGS:** For its ethane supply, Braskem Idesa has a long-term contract (20 years) with the subsidiary of Petróleos Mexicanos (PEMEX), the Mexican state-owned oil and gas company, whose price is based on the USG ethane price reference.

In 2016, COGS came to US\$302 million (R\$1,017 million). In the year, the USG ethane price reference averaged US\$146/ton, increasing 7% from 2015, which is explained by the stronger demand following the logistics debottlenecking projects, which supported higher export volumes of the United States.

**SG&A Expenses:**

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[3] 71.4% (HDPE USA) and 28.6% (LDPE USA), as per the capacity mix of the Braskem Idesa units in Mexico.

In the year, selling, general and administrative expenses amounted to US\$73 million. The highest expenses were with: (i) personnel; (ii) leasing of freight cars; (iii) advertising and marketing related to the complex's inauguration; and (iv) technical consulting services.

**Other Operating Income/Expenses:**

Includes US\$38 million (R\$125 million) related to costs and expenses with the idle capacity during the ramp-up phase of the petrochemical complex.

**EBITDA:**

EBITDA amounted to US\$163 million (R\$530 million), with EBITDA margin of 34%.

**Net Financial Result Braskem Idesa:**

The financial result of the subsidiary Braskem Idesa is mainly impacted by the debt contracted under the project finance structure and the loan from the project's shareholders. In 2016, the net financial result of Braskem Idesa was an expense of R\$1,780 million, compared to the expense of R\$355 million in 2015, which is explained by:

Interest Expenses:

- § Start of the transition to the financial result of expenses, which previously were capitalized during the project phase, which affects the balances of the project finance debt (R\$491 million) and of the loan (R\$464 million);

Exchange Variation:

- § All of the project-finance debt is designated as hedge accounting. Therefore, all exchange variation is recorded temporarily under equity and only recorded as financial income (expense) when the sales designated as hedge accounting are realized. In 2016, the amount recognized in the financial result related to the transition to hedge accounting was R\$60 million;

- § The effect from exchange variation on the loan in the amount of R\$1,059 million, arising from the 19% depreciation in the Mexican peso against the U.S. dollar between the periods. As of December 31, 2016, the outstanding principal of this loan was US\$1,883 million.\_

Financial Result Braskem Idesa R\$ million	2016 (A)	2015 (B)	Change (A)/(B)
<b>Financial Expenses</b>	<b>(253)</b>	<b>(253)</b>	<b>0%</b>
Interest Expenses	(643)	35	-
Net Interest on Fiscal Provisions	(0)	(0)	-87%
Others	(46)	(55)	-16%
<b>Financial Revenue</b>	<b>(765)</b>	<b>(786)</b>	<b>-3%</b>
Interest	2	3	-18%
Monetary Variation (MV)	1	16	-94%
Others	0	0	-85%

<b>Foreign Exchange Variation, net</b>	<b>(1,094)</b>	<b>(354)</b>	<b>209%</b>
Foreign Exchange Variation (Expense)	(1,163)	(399)	191%
Foreign Exchange Variation (Revenue)	69	45	51%
<b>Net Financial Result</b>	<b>(1,780)</b>	<b>(355)</b>	<b>402%</b>

### Income Tax Braskem Idesa:

The nominal income tax rate in Mexico is 30% on the base of taxable profit, which is net income adjusted by permanent and temporary differences, such as additions, exclusions and compensations authorized under tax legislation and any accumulated tax losses from prior periods. Furthermore, under Mexican law, tax losses must be used within a maximum period of ten years, with no limit on the amount of taxable income.

Considering that Braskem Idesa did not present taxable profit in 2016 and the accumulated tax loss is R\$7,219 million, there were no cash disbursements for payment of income taxes in the year.

### § Revenue

In 2016, consolidated net revenue was US\$13.7 billion, down 3% from the prior year. The decline is explained by the 8% decrease in the international prices of resins and basic petrochemicals, mainly due to the lower oil prices and the new resin capacities, especially for polypropylene, that came online in China during the year. Another factor contributing to the decline was the 1% lower sales volume in the domestic market compared to 2015. In Brazilian real, revenue came to R\$47.6 billion, up 2% from last year, due to the Brazilian real depreciation between the periods.

Excluding naphtha/condensate resales from the analysis, net revenue in the year increased by 1% in U.S. dollar and by 6% in Brazilian real.

In U.S. dollar, overseas revenue came to US\$6.6 billion in the year, down 4% from 2015, also influenced by the lower average price of resins and basic petrochemicals in the international market. In Brazilian real, revenue from overseas markets was R\$23 billion, of which R\$9.8 billion came from exports. Overseas revenue accounted for 45% of Braskem's total revenue (excluding naphtha/condensate resales).

### § Cost of Goods Sold

Consolidated cost of goods sold (COGS) in 2016 amounted to US\$10,074 million (R\$34,941 million). Excluding the COGS of resales (R\$2,427 million), consolidated COGS were R\$32,514 million, in line with COGS ex-resale in 2015 (R\$32,360 million), since the negative impacts from (i) the startup of the Braskem Idesa complex; (ii) the 5% average Brazilian real depreciation between the periods; and (iii) the higher sales volume in the year, were offset by lower raw-material prices, especially naphtha.

The share of naphtha in total COGS was 42.6%, down 1.1 p.p. from 2015, reflecting the lower naphtha price in the international market.

### § **Selling, General and Administrative Expenses**

In 2016, Selling, General and Administrative Expenses amounted to R\$3,050 million, up 20% from 2015, mainly due to: (i) the effects from the Brazilian real depreciation against the U.S. dollar on the expenses of the international businesses; (ii) the advertising expenses associated with the Paralympic Games; (iii) expenses with attorneys and auditors in connection with the internal investigation conducted during the year; (iv) higher expenses with software licensing; and (v) the startup of the petrochemical complex Braskem Idesa. In U.S. dollar, expenses amounted to US\$883 million, up 16% from 2015.

### § **Other Net Operating Income (expenses)**

The Company recorded an amount of R\$3,752 million in other operating expenses, which includes, mainly:

- (i) Provision of the Leniency Agreement signed by the Company with the authorities on December 21, 2016, totaling R\$ 2,860 million;
- (ii) Expenses idle and hibernated plants in the total amount of R\$ 252 million, including costs and expenses with Braskem Idesa's idle capacity during the ramp-up phase of the petrochemical complex;
- (iii) Provision for losses on investments and project expenses in the amount of R\$ 54 million;
- (iv) Provision for labor and tax proceedings in the amount of R\$ 170 million; and
- (v) Provision for environmental damages recovery, totaling of R\$ 183 million.

### § **EBITDA**

In 2016, Braskem's consolidated EBITDA amounted to R\$11,494 million, increasing 23% from the previous year. In U.S. dollar, EBITDA advanced 18% to US\$3,301 million.

The improvement compared to 2015 is mainly explained by (i) the good operating performance registered by plants during the year; (ii) the inauguration and ramp-up of the petrochemical complex in Mexico; (iii) higher export volume; (iv) the improvements in PP-propylene spreads and the performance of the operations in the United States and Europe; and (v) the 5% average Brazilian real depreciation.

§ **Net Financial Result**<sup>[4]</sup>

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[4] Excludes the financial result of the subsidiary Braskem Idesa SAPI

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The net financial result in 2016 was an expense of R\$4,215 million, compared to an expense of R\$1,544 million in 2015, reflecting the start of the recognition of hedge accounting under profit or loss in the amount of R\$1,298 million and the 16.5% Brazilian real appreciation between the end of both periods, which negatively affected the balance of financial investments and accounts receivable in foreign currencies.

Excluding the effects of exchange and monetary variation, the net financial result was an expense of R\$2,100 million, compared to an expense of R\$2,340 million in 2015. This represents a reduction of R\$240 million, which is explained by the lower interest expenses and higher interest income, given the US\$339 million increase in the cash position and the maintenance of a higher cash position in Brazilian real than in 2015.

The following table shows the composition of Braskem's net financial result, excluding Braskem Idesa:

Consolidated Financial Result (Ex- Braskem Idesa R\$ million)	2016 (A)	2015 (B)	Change (A)/(B)
<b>Financial Expenses</b>	<b>(3,051)</b>	<b>(3,141)</b>	<b>-3%</b>
Interest Expenses	(1,564)	(1,728)	-9%
Monetary Variation (MV)	(410)	(378)	9%
Net Interest on Fiscal Provisions	(250)	(148)	69%
Others	(828)	(888)	-7%
<b>Financial Revenue</b>	<b>951</b>	<b>801</b>	<b>19%</b>
Interest	756	610	24%
Monetary Variation (MV)	141	127	11%
Others	54	65	-17%
<b>Foreign Exchange Variation, net</b>	<b>(2,115)</b>	<b>796</b>	<b>-366%</b>
Foreign Exchange Variation (Expense)	(911)	(535)	70%
Foreign Exchange Variation (Revenue)	(1,204)	1,331	-190%
<b>Net Financial Result</b>	<b>(4,215)</b>	<b>(1,544)</b>	<b>173%</b>

### § Net Income/Loss

In 2016, Braskem recorded a consolidated net loss of R\$729 million, reflecting the provision for the present value of the pecuniary sanction under the Leniency Agreement in the amount of R\$2,860 million, and initial recognition of hedge accounting in the profit or loss, in the amount of R\$1,358 million. Net loss attributable to shareholders was R\$411 million.

### § Dividends

In the year, the Board of Directors of the Company approved the distribution of R\$2 billion in dividends, which corresponds to 63% of net income for the previous fiscal year. The payments were made in April and October.

§ **Liquidity and Capital Resources**

On December 31, 2016, the Company's consolidated gross debt (excluding the US\$3.1 billion debt of Braskem Idesa) stood at US\$7,513 million, up 3% from gross debt on December 31, 2015.

The balance of cash and cash equivalents amounted to US\$2,250 million, increasing 19% from the end of 2015. This balance excludes (i) US\$133 million in financial investments given as guarantee to cover Braskem's obligation related to the constitution of a reserve account for the project finance of the subsidiary Braskem Idesa, and (ii) the cash balance at Braskem Idesa of US\$62 million.

Due to the strong cash generation in the year, on December 31, 2016, Braskem recorded consolidated net debt excluding Braskem Idesa of US\$5,263 million, down 3% compared to December 2015.

Financial leverage, as measured by the ratio of net debt to EBITDA in U.S. dollar, ended the year at 1.67, down 12% from the end of 2015, benefitting from the decrease in net debt in U.S. dollar combined with the 11% increase in EBITDA in the last 12 months. In Brazilian real, the leverage ratio stood at 1.56, decreasing 30% from December 31, 2015.

Debt	12/31/2016		12/31/2015		Chg.
US\$ million	(A)		(B)		(A)/(B)
<b>Consolidated Debt</b>	<b>10,623</b>		<b>10,441</b>		<b>2%</b>
in R\$	1,582	15%	1,553	15%	2%
in US\$	9,041	85%	8,888	85%	2%
<b>Project Finance - Mexico</b>	<b>(3,110)</b>		<b>(3,144)</b>		<b>-1%</b>
in US\$	(3,110)	100%	(3,144)	100%	-1%
<b>Gross Debt Ex-Project Finance</b>	<b>7,513</b>		<b>7,297</b>		<b>3%</b>
in R\$	1,582	21%	1,553	21%	2%
in US\$	5,932	79%	5,743	79%	3%
<b>Cash and Cash Equivalents</b>	<b>(2,250)</b>		<b>(1,887)</b>		<b>19%</b>
in R\$	(1,204)	54%	(670)	35%	80%
in US\$	(1,046)	46%	(1,217)	65%	-14%
<b>Net Debt</b>	<b>5,263</b>		<b>5,409</b>		<b>-3%</b>
in R\$	377	7%	883	16%	-57%
in US\$	4,886	93%	4,526	84%	8%
<b>EBITDA LTM</b>	<b>3,152</b>		<b>2,835</b>		<b>11%</b>
<b>Net Debt / EBITDA</b>	<b>1.67x</b>		<b>1.91x</b>		<b>-12%</b>

Through a global agreement with authorities in Brazil and abroad, the Company undertook to pay such authorities approximately US\$957 million, equivalent to approximately R\$3.1 billion. Including the present value of this amount in the Company's net debt, adjusted leverage in U.S. dollar at the end of the year was 1.95.

Debt	12/31/2016	12/31/2015	Chg.
US\$ million	(A)	(B)	(A)/(B)
<b>Adjusted Net Debt</b>	<b>6,139</b>	<b>5,409</b>	<b>13%</b>
Net Debt	5,263	5,409	-3%
Leniency Agreement*	957	-	-
Value Adjustment for 12/31/2016	(82)	-	-
<b>EBITDA LTM</b>	<b>3,152</b>	<b>2,835</b>	<b>11%</b>
<b>Adjusted Net Debt / EBITDA</b>	<b>1.95x</b>	<b>1.91x</b>	<b>2%</b>

\*Face value of the Leniency Agreement

On December 31, 2016, the average debt term was 14.6 years, and considering only dollar-denominated debt, the average debt term was 17.4 years. The average cost of servicing the Company's debt was 6.14% in U.S. dollars and 9.96% in Brazilian reais, compared to 6.13% and 11.58%, respectively, in the prior year.

In line with its strategy to maintain high liquidity and its financial health, the Company also maintains two stand-by credit facilities in the amounts of US\$750 million and R\$500 million, both of which mature in 2019. The Company's stand-by credit facilities were not used in the period.

Braskem's liquidity position of US\$2,250 million is sufficient to cover the payment of all obligations maturing over the next 28 months. Considering the stand-by credit facilities, this coverage is 35 months.

The following chart details on Braskem's debt amortization schedule as of December 31, 2016:

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§ **Risk Rating Agencies**

In 2016, Braskem maintained investment grade ratings at Standard & Poor's (BBB-) and Fitch Ratings (BBB-) and its credit risk is above Brazil's sovereign risk at the three main rating agencies (S&P, Fitch and Moody's).

The highlights in the year were:

§ Fitch Ratings: In September 2016, Fitch reaffirmed Braskem's rating on the global scale rating of BBB- and upgraded the outlook from negative to stable. The upgrade was supported by Braskem's (i) strong cash generation, (ii) diversified feedstock profile following the startup of the Braskem Idesa petrochemical complex, (iii) cash position held abroad, and (iv) readily available stand-by credit facilities;

§ Standard & Poor's: Despite Brazil's sovereign rating being downgraded by S&P in February, Braskem had its global scale rating reaffirmed at BBB-, with a negative outlook, supported by its solid cash position and the fact that it has overseas operations; and

§ Moody's: In February, Moody's downgraded Brazil's sovereign rating and reaffirmed the negative outlook. According to the agency's scale, the rating was downgraded by two notches to Ba2. Accordingly, following the downgrading of the sovereign rating, Moody's downgraded Braskem's rating by one notch to Ba1. Even with the downgrade, Braskem maintained its credit risk one notch above Brazil's sovereign rating.

Consistent with its commitment to foster continuous development in the petrochemical industry and plastics chain, Braskem maintains an Innovation department with 302 dedicated team Members.

It currently maintains 2 Innovation & Technology Centers, with 1 in Triunfo, Rio Grande do Sul, Brazil and 1 in Pittsburgh, Pennsylvania, United States; 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 2016, its portfolio was formed by 334 projects to develop new products and processes with aggregate risk-adjusted net present value of US\$2,599 million.

A relevant portion of the pipeline's value is represented by long-term projects of higher technological complexity, which are divided into seven platforms that address topics related to 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 new products launches by, for instance, the group of Polyolefins in all regions, where 12.4% of sales come from products launched in the last three years. In 2016, 21 new resin grades were added to the portfolio, which included:

- BRASKEM PP AMPPLEO (high melt-strength polypropylene): polypropylene resin modified to feature increased resistance to strain when melted at high temperatures. Developed for high-performance foaming processes, with applications in the packaging and automotive industries to meet requirements involving resistance and thermal and acoustic insulation.
- EVA Extreme Adhesion: resin for the adhesives market with tack properties similar to those in the best alternatives for applications such as footwear (insoles), furniture, packaging and mattresses. Resin with technology and performance aligned with Braskem's initiatives in sustainability and chemical safety for products and processes, featuring uniform adhesion, shorter processing times and increased safety.
- LLDPE Flexus Cling®: developed especially for stretch films produced using extrusion processes, the resin's main application is protecting cargo during transportation. Developed in partnership with MSL, the leading and most respected maker of extrusion machines for stretch films, the resin was processed throughout K Fair. To round off the current portfolio, Braskem is launching the Braskem Flexus Cling resin, which is recommended for producing the external layer of films to confer excellent cling performance and low unwinding force to the final product.
- High Gloss PE: new polyethylene resin featuring high gloss and better finishing for blow-molded packaging. This new launch in our portfolio follows industry trends and attests to our commitment to offering innovative and complete solutions to Clients by improving their products' visibility on store shelves to let them stand out. The new product expands our offering of packaging solutions for the cosmetics, personal care, home care and food industries, making our portfolio even more complete while adding greater value.

Some of the most notable achievements in the field of Innovation & Technology in the year are described below:

- a) Filing of 10 new patent applications and 73 requests for extensions. Over its history, Braskem has filed 1,030 patents. The Company has currently 458 active filings, 207 of which with patents granted.
- b) Continuation of the Scientific Consulting Group formed by five external members with five distinct specializations (materials science, macromolecular chemistry, polymer catalysis,

process and thermodynamics, and renewable chemicals), with two meetings held in 2016 to collaborate on Braskem's Innovation & Technology programs, assess efforts, give scientific opinions and present global technological trends to support strategies.

c) With regard to the assets dedicated to research and development, the highlights were:

- (i) Investment of R\$2.2 million in the Technology and Innovation Center in Triunfo, Rio Grande do Sul in rotomolding equipment. This segment involves the production of large, hollow parts, mainly for the construction and retail industries. Applications range from water tanks, water cisterns, children's playground equipment, kayaks and agricultural parts. Investments include a rotomolding machine, a micronizing machine and ancillary equipment, to be used to support clients and develop new products. The equipment already has been installed and should be inaugurated in 2017;
- (ii) Investments of US\$845,400 to update Nuclear MRI equipment at the Technology and Innovation Center in Pittsburgh, United States. MRI is one of the most powerful structural analysis tools available in a polymer science laboratory. The investment will enable

Braskem to attain a state-of-the-art level in polymer characterization. The applications include expanding and deepening knowledge on modified polymers and catalysts;

(iii) Inauguration of European technical center in Wesseling, Germany with investment of €5 million. This latest achievement reflects the progress made in our international expansion process, which led us to strengthen our commitment to Clients and the European market by developing and researching new products and applications to help expand the portfolio and enhance our technical support; and

(iv) Investment of over R\$10 million in the Petrochemical Technologies Development Laboratory (LDTP) located in the petrochemical complex of Mauá, Sao Paulo to modernize and acquire equipment, which will strengthen the development of technologies used in production processes for resins, basic petrochemicals and specialties.

d) Braskem continues to focus on finding solutions for products based on renewable resources through internal projects and partnerships with Amyris and Michelin to produce isoprene, and with Genomatica to produce butadiene.

e) The Innovation & Technology center in Brazil provided support to 470 clients through 20,000 support analyses. Meanwhile, the Innovation & Technology Center in the United States provided support to 60 clients through 16,000 analyses.

f) Printing the Future – In partnership with Made In Space, the leading U.S. developer of 3D printers for operation in zero gravity and a supplier to NASA, Braskem took Brazilian technology into space. Developed by Made In Space, the Additive Manufacturing Machine (AMF) is the first 3D printer to be permanently allocated off planet. The equipment, installed aboard the International Space Station (ISS), will be able to fabricate various parts using I'm green™ green Plastic, which is Braskem's biobased polyethylene resin produced at its plant in Triunfo, Rio Grande do Sul. The first part fabricated, which is a tubing connector for a vegetable irrigation system, was printed in September 2016.

In 2016, Braskem made investments in the aggregate amount of R\$2,975 million. The R\$687 million decrease compared to the initial projection of R\$3,661 million is explained mainly by the effect from the translation to Brazilian real of the investments made in U.S. dollar, and by the optimization of the investment portfolio, which led to the postponement/cancelation of certain operating and strategic projects.

Excluding Braskem's contributions to the Mexico project from the analysis, total investment came to R\$1,780 million, down 31% from the initial estimate of R\$2,334 million. Of this amount, R\$1,439 million, or approximately 81% of the total, was allocated to industrial operations (R\$107 million of which in the United States and Europe, equivalent to US\$33 million), including the investments related to operating efficiency, HES, productivity and modernization. The other R\$341 million (of which R\$244 million in the United States and Europe, equivalent to US\$72 million) were allocated to strategic projects, such as: (i) investment to produce UTEC® resin in La Porte, USA; (ii) investment to diversify the feedstock profile of the cracker in Bahia; and (iii) investments to capture productivity gains at the PP



plants in the United States and Germany.

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[5] Includes the operating investments, maintenance shutdowns and spare parts of Braskem and its subsidiaries and the equity contributions to the Mexico project.

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Million	Investments		2016e	
	2016			
<b>Operational (R\$)</b>				
	<b>1,439</b>	48%	<b>1,797</b>	49%
Brazil (R\$)	1,332		1,595	
United States and Europe (US\$)	33		48	
<b>Mexico (R\$)</b>	<b>1,195</b>	40%	<b>1,327</b>	36%
Mexico (US\$)	330		329	
<b>Strategic Projects (R\$)</b>	<b>341</b>	11%	<b>537</b>	15%
Brazil (R\$)	96		255	
United States and Europe (US\$)	72		69	
<b>Total (R\$)</b>	<b>2,975</b>	100%	<b>3,661</b>	100%
Brazil (R\$)	1,428		1,850	
Mexico, United States and Europe (US\$)	434		447	

### § UTE<sup>®</sup> Project

Braskem's new line to produce ultra-high molecular weight polyethylene (UHMWPE), known commercially as UTE<sup>®</sup>, started operations in January 2017.

Located in La Porte, Texas, the plant will complement the production capacity of the existing UTEC line in Brazil at the petrochemical complex in Camaçari. Using 100%-Brazilian technology, UTEC<sup>®</sup> resin has a vast array of applications in industries such as automotive and transportation, electronics, fibers and textiles, industrial and heavy equipment, material handling, oil and gas, pipe and mining, porous plastics, recreation and consumer goods.

Production at the UTEC<sup>®</sup> plant in La Porte will serve mainly the U.S. market, although, in the future, the Company hopes to export the resin to destinations in Europe, India and China.

The plant's startup strengthens Braskem's position as one of the world's leading producers of UHMWPE.

### § Project to diversify the feedstock profile in Bahia

With investment of R\$380 million, the project will enable the cracker in Bahia to use ethane feedstock to produce up to 15% of its ethylene. The investment also includes the retrofitting of the plant and adaptation of the port infrastructure, and is scheduled to start operating in the second half of 2017.

To supply the feedstock, the Company signed an agreement with an affiliate of Enterprise Products for the purchase of ethane imported from the United States. The agreement has a term of 10 years and prices based on the Mont Belvieu international price reference.

The project is advancing, with the highlight this year the conclusion of the basic engineering, with the engineering detailing and management of procurement of critical items continuing to advance on schedule. This year, Braskem invested R\$82 million in the project. The Company has already invested a total of R\$120 million since the beginning of the project.

§ **Debottlenecking of the Marcus Hook plant, USA**

In line with the strategy to expand into international markets and meet the needs of its Clients, in 2016, Braskem invested around US\$21 million to debottleneck the PP plant in Marcus Hook, Pennsylvania, which increased its annual nominal capacity by approximately 64 ktons per year. The scope of the project included improvements to the propylene purifier and to the plant's resin production areas.

Additionally, in the last 2 years, approximately US\$3 million were spent on reliability projects such as pellet transfer system, piping upgrade and other process control improvements that supported an increase in the productivity of Braskem's plants located in the U.S. Gulf Coast, resulting in a PP capacity increase of 42 ktons per year.

Considering all the initiatives and efforts to capture the favorable spreads in North America, Braskem's polypropylene capacity in the U.S. increased by 105 ktons per year, going from 1,465 ktons per year in 2016 to 1,570 ktons per year in the beginning of 2017.

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On December 31, 2016, Braskem's capital was R\$8,043,222,080.50, divided into 797,254,604 shares, as shown in the following table. Its common shares, class "A" preferred shares and class "B" preferred shares are traded on the Sao Paulo Stock Exchange (BM&FBOVESPA under the stock tickers "BRKM3," "BRKM5" and "BRKM6," respectively.

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

SHAREHOLDERS	SHARES IN 12/31/2016							
	Common Shares		Class "A" Preferred Share		Class "B" Preferred Shares		TOTAL	
	QUANTITY	%	QUANTITY	%	QUANTITY	%	QUANTITY	%
ODEBRECHT S.A.	226,334,623	50.11%	79,182,498	22.95%	0	0.00%	305,517,121	38.32%
PETROBRAS	212,426,952	47.03%	75,761,739	21.96%	0	0.00%	288,188,691	36.15%
ADR's	0	0.00%	46,063,824	13.35%	0	0.00%	46,063,824	5.78%
OTHERS	12,907,077	2.86%	142,767,803	41.38%	578,330	100.00%	156,253,210	19.60%
TREASURY	0	0.00%	1,234,758	0.36%	0	0.00%	1,234,758	0.15%
<b>TOTAL</b>	<b>451,668,652</b>	<b>100%</b>	<b>345,010,622</b>	<b>100%</b>	<b>578,330</b>	<b>100%</b>	<b>797,257,604</b>	<b>100%</b>

In 2016, 15,288 class "B" preferred shares were converted into 7,644 class "A" preferred shares. Also in the year, BNDES Participações S.A. – BNDESPAR sold part of its class "A" preferred shares issued by Braskem, thereby decreasing its ownership interest in the Company to less than 5% of the total capital. 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.

#### § **BM&FBOVESPA (Level I Corporate Governance) – BRKM5 and BRKM3 Stock Performance**

The year 2016 was another marked by shifts in investor confidence related to the economic and political scenarios, which generated volatility in the stock market. The Bovespa Index, the country's main stock index, reversed its downward path of the prior three years to gain 38.9% in 2016, based on the index's level at the close of trading on December 30, 2015. Braskem's common shares (BRKM3) closed 2016 quoted at R\$29.99, for an increase of 101% compared to the end of 2015. Braskem's class "A" preferred shares (BRKM5) also appreciated, by 37.8%, compared to the close of 2015, quoted at R\$34.25.

The gain in Braskem stock was influenced by: (i) the startup of the petrochemical complex

Braskem Idesa in 2Q16; (ii) the execution of the global settlement with applicable authorities; (iii) the first signs of a gradual recovery in the Brazilian market; (iv) the export performance of Brazilian resins and basic petrochemicals; (v) the performance of the units in the United States and Europe; and (vi) the adoption of enhancements to the Company's compliance system to ensure best market practices.

One of the strongest gains in Braskem's common shares (BRKM3) on any single day of 2016 occurred on September 28, when the stock increased 9.77%, benefitting from the notice to shareholders regarding the payment of interim dividends made on the previous day. The most substantial drop in the stock price in any single day of 2016 was on March 23, when documents linking Braskem to Operation Car Wash were reported by the media. BRKM3 common shares registered average daily trading volume of R\$154,000 in 2016, compared to R\$173,000 in 2015, a reduction of 11%. The maximum stock price in the year was R\$30.30, on December 28, 2016, and the minimum was R\$13.80, on August 3, 2016.

For the class "A" preferred shares (BRKM5), the largest gain on a single day was 12.43%, on December 2, 2016, following rumors that Braskem had entered into a Leniency Agreement with authorities. The biggest

loss, on the other hand, was 11.73% at the end of trading on March 23, 2016, reflecting the market's reaction to developments under Operation Car Wash. In 2016, average daily financial trading volume in the preferred stock BRKM5 increased by 17% to R\$41 million, from R\$34.9 million in 2015. The highest price in the year was R\$34.39, on December 28, 2016, and the lowest was R\$18.25, on July 15, 2016.

For the 12<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 for the period from January to December 2017. Created by the BM&FBovespa 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 portfolio includes 40 stocks from 35 companies that represent 16 sectors of the economy.

#### **§ Level III ADR Program – New York Stock Exchange (BAK)**

In 2016, the ADRs representing class "A" preferred shares gained 74.4% compared to 2015. The gain is explained by: (i) the shift in sentiment regarding the Brazilian economy after the change in government; (ii) the execution of the Leniency Agreement with the applicable authorities; (iii) the Company's economic and operating performance on a quarterly basis; and (iv) the Company's capacity to pay interim dividends of R\$1 billion for the first time ever. The highest stock price in the year was registered on December 30, 2016, of US\$21.21/ADR, while the lowest was registered on February 11, 2016, at US\$10.21/ADR.

Braskem once again was included in the Dow Jones Sustainability Emerging Markets Index (DJSI Emerging Markets), of which it has been a component since its launch. Formed by 92 companies, 16 of which from Brazil, the DJSI identifies companies that are recognized for best practices in economic, social and environmental management and have strategies to address climate change, energy consumption, people development and corporate governance.

In 2016, Braskem continued to focus its efforts on strengthening its contribution to sustainable development, which centered on its Belief & Purpose and on the Ten Macro Goals in three Strategic Pillars.

In the pillar of increasingly sustainable production processes, it achieved excellent results in the macro goals of water efficiency and energy efficiency, in which the highlights are the best results since 2002 in wastewater discharge, energy consumption and promoting diversity. Another highlight was the investment of R\$103.9 million in Health, Environment and Safety projects to support the continuous improvement in operating performance.

Braskem registered a 14% decrease in the intensity of its greenhouse gas emissions between 2009 and 2015, which is in line with the target set and was subjected to third-party verification (KPMG). Braskem also was named a Climate Leader by the Carbon Disclosure Project Brazil and became the first Brazilian company to be included on the "A" List of CDP Investor.

In the pillar increasingly sustainable products, the highlights were the initiatives and results obtained in the macro goals of Renewable Resources, Energy Efficiency, Climate Change and Post-Consumer Waste: Braskem's Green PE production was modernized through investments of R\$7.1 million between 2013 and 2015, which achieved a 30% reduction in CO<sub>2</sub> emissions. New equipment was installed to reduce losses and lower fuel consumption by the generator, and included a new system for the reuse of wastewater. The Life Cycle Assessment (LCA) for Green PE was updated and identified the capture of 2.78 CO<sub>2</sub>e/t of sustainable resin, compared to the capture of 2.15 CO<sub>2</sub>e/t identified in the previous study. Green PE is the first good produced by Brazil's petrochemical industry to receive the carbon footprint seal, an initiative led by the Technical Commission for the Industrial Sector Plan (CTPI) of the Ministry of Development, Industry and Foreign Trade, which establishes and orients actions for implementing the National Climate Change Policy in priority sectors. According to the measurement conducted by Carbon Trust and the

Brazilian Association of Technical Standards (ABNT), Braskem's Green PE has a negative emissions footprint (-2.11 kilograms of CO<sub>2</sub> equivalent per kilogram of product), which means that it helps to sequester carbon gas from the air.

Another highlight is the Wecycle platform, which was created to foster businesses and initiatives that value plastic waste and to develop solutions, products and processes involving the recycling of plastics. The platform seeks opportunities in the various links of the plastic chain to develop custom projects, which include developing products made from post-consumer recycled plastic, improving existing applications for this material and developing new applications. Also, the first polypropylene and polyethylene resins made from 100% recycled content, with the combined production volumes of the two resins potentially reaching 50 tons per month.

In the pillar solutions for a more sustainable life, the highlights are the initiatives and results obtained in the macro goals Local Development, Development of Solutions and Strengthening Practices.

In the period from 2011 to 2016, 41 Life Cycle Assessment (LCA) studies and five Carbon Footprint studies were conducted, which identified the advantages and priority areas of improvements of the Company's products. A methodology was developed to identify the level of alignment with the Sustainable Development Goals (SDGs) of the projects to develop new applications for Braskem's thermoplastic resins. Launched by the United Nations in 2015, the SDGs aim to help end poverty, promote prosperity and well-being for everyone, protect the environment and mitigate climate change. In 2016, the level of alignment with the SDGs of Braskem's project pipeline stood at around 84%, which reinforces the Company's role as a provider of social and environmental solutions to society.

To identify opportunities and the impacts of human rights on its value chain, Braskem launched a due diligence process that is based on the Ruggie Framework.

Braskem is spearheading implementation of the "Lower Losses, More Water Movement" jointly with the water utility SANASA. The newly elected mayors in cities of the states of São Paulo and Alagoas have undertaken to reduce water losses during their administrations and will receive support from the movement starting in 2017. In addition, a booklet with success cases was published that highlights the substitution of cement-asbestos and galvanized-iron piping for high-density polyethylene piping as a way to reduce water losses in Brazil's distribution system.

Demonstrating how its practices were strengthened, Braskem was included for the 12<sup>th</sup> straight year in the portfolio of the Corporate Sustainability Index (ISE) of the São Paulo Stock Exchange (BM&FBOVESPA) and for the fifth straight year in the Dow Jones Sustainability Emerging Markets Index of the New York Stock Exchange (NYSE).

Since the disclosure of a Public Commitment upon its creation on August 16, 2002, Braskem



has reaffirmed its commitment to align the interests of all of its shareholders, its commitment to ethics, competitiveness and excellence in all actions to assure better returns for shareholders, while adding value to its assets and remunerating its capital.

Guided by this vision, Braskem adopts a management model based on recognized corporate governance practices to ensure its proper functioning. In addition to the Board of Directors and to the Audit Board with the expanded powers envisioned by the Sarbanes-Oxley Act, the Company has four Standing Committees to support the Board of Directors (Finance and Investment Committee, Strategy and Communication Committee, People and Organization Committee and the recently created Compliance Committee). The basic function of the Support Committees is to advise the Board of Directors on pre-established matters.

The evolution in government legislation around the world, especially in anti-corruption laws with extraterritorial effectiveness, and their application by regulatory and judicial bodies, 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.

This led the Board of Directors to create, in 2016, the Compliance Committee; approve the Compliance Policy for Acting with Ethics, Integrity and Transparency; and strengthen its Compliance department. The creation of Braskem's Compliance Committee to support the Board of Directors and the committee's direct link with the Compliance department strengthen the conditions for the Compliance system to be effectively implemented throughout the Company. Another important advance achieved in 2016, was the appointment of three independent directors to the Board of Directors, bringing to six the number of independent directors on the governance body.

Braskem's key corporate governance practices follow:

§ Listing on the Level 1 Corporate Governance segment of the BM&FBovespa (special listing segment for companies on the BM&FBovespa) since February 13, 2003.

§ Braskem also complies with other requirements for listing on the Level 2 Corporate Governance and Novo Mercado listing segments of the BM&FBovespa, such as: (i) 100% tag-along rights for all Braskem shareholders in the event of the transfer of control; (ii) reporting of financial statements in accordance with international standards; and (iii) a Board of Directors formed by at least five directors with a unified term of up to two years, who are eligible for reelection, as well as by independent directors.

§ An Audit Board with the expanded powers envisioned by the Sarbanes-Oxley Act, particularly: monitoring and analyzing the process for engaging independent auditors and advising the Board of Directors on their selection and compensation; (ii) approving the Annual List of Pre-Approved Services that can be rendered in any fiscal year by the independent auditors; (iii) analyzing the Recommendations Report drafted by the independent auditors and the reports on internal controls; and (iv) supervising the work of the independent auditors and discussing the scope of the audit services to be developed, among other things.

§ Various corporate policies, which include the following: compliance Policy for Acting with Ethics, Integrity and Transparency; Investment Policy; Financial Management Policy; Securities Trading Policy; Social Responsibility Policy, Insurance and Guarantees Policy; Compensation Policy; and Health, Environment and Safety Policy.

§ Braskem's Code of Conduct was strengthened and incorporated into the Compliance Policy, which applies to all of Braskem's operations around the world. The code also establishes the values, principles and practices that guide the Company's corporate conduct.

§ An Ethics Committee, which works jointly with the Compliance Committee, whose function is to document, address, recommend and/or make decisions to resolve the denouncements made through the company's ethics hotline, which is a confidential communications channel to report violations of the Code of Conduct, enforce compliance with the code and continually improve the company's internal procedures and controls;

§ Private information systems for the Board of Directors and its Support Committees and the Audit Board. Through the Braskem Corporate Governance Portal, directors can access the information that they need to carry out their roles and responsibilities in a secure, transparent, fair and timely manner.

§ Manual for shareholder meetings, which is a supporting document that provides shareholders with guidelines on procedures and deadlines for participating in shareholder meetings.

§ The Braskem Director Manual, which supports the exercise of the duties of the directors, compiles in a single volume the main documents that guide Braskem's corporate governance and serves as basis for the activities of the members of the Board of Directors, its Advisory Committees and the Audit Board.

§ Structured process for managing all of Braskem's guidance documentation, through which it describes, registers and disseminates the corporate decisions, rules and guidelines of fundamental importance for supporting the work of its Team Members.

### § **External Audit**

The Company's policy for engaging independent auditors to perform services unrelated to the external audit is based on principles that preserve the independence of audit professionals. In accordance with internationally accepted standards, these principles are: (a) auditors may not audit their own work; (b) auditors may not exercise a management function at the audited firm; and (c) auditors may not promote the interests of their clients.

During the fiscal year ended Dec. 31, 2016, the external audit firm provided a total of R\$1,779 thousand in services not related to its external audit, including: (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. This amount corresponds to around 95% of the fees paid to the audit firm.

The independent auditor has declared that it rendered the aforementioned services in strict accordance with the 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.

In 2016, Braskem continued to make progress in its management of **Health, Environment and Safety (HES)** and, in keeping with its culture of prevention through discipline, continued to prioritize aspects of **Process Safety**, in line with the Integrated Health, Environment and Safety System (**SEMPRE**), by conducting audits and critical analyses.

The **Injury Rate Without Lost Time + With Lost Time**, considering both Team Members and Partners per million hours worked, was 0.80, or 19.8% higher than in 2015, a result that is considered a benchmark in the industry. The **Lost-Time Injury Rate**, considering both Team Members and Partners per million hours worked, was 0.24, in line with the figure in 2015.

In the area of **Process Safety**, in 2016, the focus on this topic was strengthened in all of the Company's leadership committees. In addition to rigorously assessing and managing the risks posed to processes in the industrial and logistics operations, Braskem also focused on registering and analyzing near-miss accidents to improve its preventive measures, on continually improving its barrier management and on implementing technical actions to mitigate the risks associated with scenarios of greater significance. Braskem also approved a newly standardized and enhanced risk matrix, which will be implemented in all of its businesses and units. The rate of Tier 1 incidents per million hours worked was 0.22, down



from the previous year and in line with the Company's expectations and with the average of the six companies in the global chemicals industry considered references in safety.

**Logistics Process Safety** was strengthened in 2015 and continued in 2016 through the structured risk assessment program, which involved seven new products whose operations are classified as medium risk by Braskem, based on the volumes transported and the hazard level. For the logistics operations involving these seven products, the company assessed 144 routes, 17 freight carriers, six loading/unloading areas, the configurations of road equipment and ten maritime vessels that transport these products. Specific HES inspections also were carried out at the six maritime terminals used by Braskem, which were based on international standards, such as those from the Chemical Distribution Institute (CDI-t), with the aim of identify risks and define preventive control barriers.

In the area of **Chemical Safety**, Braskem updated and made available to stakeholders all of its Emergency Datasheets, in accordance with the new legislation, and also improved the Chemical Product Safety Information Records (FISPO) for the products it produces and sells. Braskem, in partnership with the Brazilian Chemical Manufacturers' Association (ABIQUIM), works with the International Council of Chemical Associations (ICCA) to promote the recognition and awareness of risks and benefits to both people and the environment resulting from the use of chemical products.

In **Health and Hygiene Management**, Braskem organized various initiatives to raise awareness on disease prevention and improving the quality of life of all Team Members and their families. The Company also implemented improvement projects supported by capital expenditures at certain plants to further reduce any sporadic exposure to products, in accordance with international standards, with the control measures adopting statistical measurements and monitoring activities.

With regard to the **Environment**<sup>6</sup>, in 2016, Braskem made progress on various actions that culminated in improvements in most of its indicators:

§ Wastewater discharge (1.11 m<sup>3</sup>/t): reduction of 3.5% from 2015 and a 4.3% improvement from the target for 2016. Braskem's best result ever;

§ Solid, liquid and viscous waste generation (2.16 kg/t): increase of 7.5% from 2015, due to the general maintenance shutdown at one of the naphtha cracking lines and at the aromatics

plants in Bahia, and to the desilting of wastewater treatment lakes, effectively in line with the target for 2016;

§ Energy consumption (10.25 GJ/t): reduction of 2.3% from 2015 and in line with the target for 2016. Braskem's best result ever;

[6] Does not include Braskem Idesa data.

§ Water consumption (3.93 m<sup>3</sup>/t): reduction of 3% from 2015 and a 6% improvement from the target for 2016.

In the management of **Greenhouse Gases<sup>7</sup> (GHG)**, Braskem concluded the 2016 emissions inventory (base year 2015) covering all industrial plants and corporate centers; was elected the best publicly held corporation in Latin America in carbon management by the Carbon Disclosure Project (CDP) in the Transparency category; and was recognized for the fourth consecutive year in the Gold Category of the Brazil GHG Protocol Program. Direct emissions (scope 1) amounted to 9,140,042 tCO<sub>2</sub>e, indirect emissions (scope 2) amounted to 1,077,644 tCO<sub>2</sub>e and other indirect emissions (scope 3) amounted to 15,803,961 tCO<sub>2</sub>e. The intensity of these emissions reached 0.604 tCO<sub>2</sub>e/t, which represents a reduction of approximately 14% from 2009 to 2015; the Company's goal is to reach 0.6 tCO<sub>2</sub>e/t of product produced by 2020.

At Braskem, the commitment to developing local communities is firmly rooted as well as formalized through a Public Commitment undertaken by the Company upon its incorporation, in 2002, and through its corporate philosophy, which establishes social responsibility as one of its five basic tenets.

Braskem's Social Action Strategy, which was formulated to guide these efforts, establishes the following guiding causes: (i) driving human development; and (ii) fostering social and environmental development through chemistry and plastics.

In 2016, this strategy was executed through 13 Private Social Investment projects, of which five have a national scope and eight focus on the regions in which Braskem operates. The highlights included:

Braskem Labs: program to encourage entrepreneurs to develop innovative solutions based on plastics and chemistry that help make people's lives better. Working in partnership with Endeavor, the program held its second edition in 2016, in which 12 entrepreneurs were accelerated, which included two working in a special category focusing on eradicating the mosquito *Aedes aegypti*. The entrepreneurs underwent a four-month training program in which some 30 Braskem Leaders participated as mentors. The program culminated in Demo Day, when the entrepreneurs presented their solutions to an audience of 180 investors, mentors and Braskem partners and clients. The highlights of the program's results, which were compiled through a survey of the entrepreneurs, included: (i) new business deals generated for 50% of participants; (ii) product improvements for 75%; and (iii) entry of new investors for 67%.

Ser+ realizador: active in all states where Braskem has operations, the initiative fosters the social inclusion of recyclable-material collectors and increases the percentage of post-consumer waste recycled in Brazil, which helps to improve the efficiency of the recycling production chain. By investing in equipment and infrastructure at picking centers, offering personalized training and guidance services, the recyclable waste collectors were able to boost their productivity and income levels. Another highlight of the program is the support for



developing and executing strategies for managing post-consumer solid waste at the municipal level in the cities of Porto Alegre and Salvador and in the ABC region of Greater São Paulo, working in alignment with the National Solid Waste Policy. In 2016, the project benefitted over 3,100 collectors and the 47 cooperates supported sent more than 27,000 tons of solid waste for recycling.

Fábrica de Florestas Institute: project in the states of Bahia, São Paulo and Rio de Janeiro that works to expand, recover and maintain green areas through integrated environmental education. The project is developed with local communities, which receive training on how to collect seeds, produce and plant native seedlings and maintain planted areas. The project offers guided tours of its Nursery-Schools to students in public and private schools. In 2016, the program inaugurated a Nursery-School in Bom Jesus da Lapa, Bahia and sponsored initiatives, such as launching a sustainability event in Salvador (*1<sup>st</sup> Virada Sustentável Salvador*), an exhibition of the first Itinerant Nursery-School in malls and the Eco Parque Sauipe Summer, which offers educational circuits at the Braskem Environmental Station in Bahia state. During the year, more than 88,000 seedlings were produced and 46,000 were planted, while 1,036 people were trained in cultivation techniques.

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[7] Includes the gases CO<sub>2</sub> (carbon dioxide), CH<sub>4</sub> (methane), N<sub>2</sub>O (nitrous oxide) and HFC 134 (hydrofluorocarbon, refrigerant fluid).

Braskem's social investment in Brazil amounted to R\$26 million allocated to social, environmental and cultural projects. In addition to the investment made directly by Braskem, the PSI projects also raised over R\$8 million through external partners.

Another highlight was Braskem's sponsorship of the Brazilian Parathletics Team and of runner Alan Fonteles. Athletics is one of Brazil's leading sports in terms of the number of medals won. At the Pan American Games held in Toronto, Brazil figured first in the overall medal count and the sport was responsible for 80 of the 257 medals won by the country in this historic campaign.

In the United States and Germany, Braskem made over R\$550,000 (approximately US\$125,000 in the United States and €30,000 in Germany) in philanthropic donations that benefitted over 60 organizations and programs focusing primarily on the benefits of plastics for people's lives and in the fields of science, technologies, engineering and mathematics. The amounts invested in the United States were complemented by hundreds of hours of volunteer work in local communities by Braskem Team Members.

In Mexico, social investment in the year surpassed R\$1.3 million (MXN 2 million) in productive projects in communities neighboring the industrial site that focus on boosting income, supporting tilapia raising cooperatives and producing uniforms for use in the complex. The Mexico unit also made external financial donations of around R\$1.6 million (MXN 2.4 million).

Developing and attracting people to support Braskem's planned growth is the core strategy of the People and Organization department. During 2016, Braskem continued to implement several programs focused on continually improving the workplace, integrating and training Team Members and preparing and developing Leaders.

The main matric monitored by the Company is the voluntary turnover rate, which stood at 1.9% overall. In Brazil, the result of 1.3% in 2016 accompanied the downward trend of recent years. With regard to Leaders, the voluntary turnover rate in 2016 was 1.98%, compared to 2.06% in 2015.

We conducted a work environment survey during the year to better understand Team Members' perceptions of Braskem internal practices and workplace in order to develop improvement actions. The survey was conducted in all countries and sites and registered a Team Member participation rate of 82%. The survey score improved by 9 percentage points in relation to the one conducted in 2013, reaching a favorability level of 77%, attesting to Braskem's progress as an excellent place to work.

To attract young professionals, the Company maintained close relations with student organizations in order to strengthen its positioning as a company with the capacity to attract young talent. On this front, it signed a partnership with the Federation of Junior Companies of the states of Rio Grande do Sul, Bahia and Rio de Janeiro to support young professionals in their academic environments. Braskem participated in six events at universities in the states of São Paulo, Rio de Janeiro and Rio Grande do Sul to strengthen relations with university students and reinforce its brand. Through the platform targeting young professionals called

Jovens Braskem, content was made available to help guide them in their careers and give them an opportunity to learn about Braskem's day-to-day activities through testimonials from various professionals. The vocational and college internship programs combined received 32,000 applications in 2016, with the number of applications submitted by college students growing 22%, which attests to the company's attractiveness among these stakeholders. The program Young Production Worker (*Jovem Operador*) received 4,541 applications and trained 219 new production workers. In the United States, Braskem concluded the training program for its 2014 class of associates, selected four interns for the federal government program Science without Frontiers and recruited 16 participants for its Summer Internship program. In Mexico, 33 new interns were hired.

As part of the ongoing technical and industrial worker education and development process, over 3,900 Team Member participated in educational actions, which included seminars, technical forms and e-learning courses. Four classes completed the Technical Competencies Development Program for the Operations and Maintenance teams, with 134 Team Members graduating. Furthermore, in partnership with National Industrial Training Service (SENAI) in states where Braskem has industrial sites in Brazil, a technical course in petrochemicals was launched that offers content that is aligned with the industry's needs and designed to effectively prepare new industrial workers in chemical and petrochemical processes.

As part of its strategy to develop Leaders, Braskem created Leadership Paths, which is a set of programs structured in accordance with the Leader's development stage. This year, 30 leaders graduated and another 60 began their development through the Educator Leader Development Program, which focused on professionals in their first or second leadership stages. Another highlight was the graduation of 30 professionals from the Global Leaders program, which focuses on developing entrepreneurs who are aligned with Braskem's international expansion strategy. In the United States, 70 leaders in the first two leadership stages graduated from their development programs.

To help disseminate and strengthen the practice of the corporate culture, various initiatives were carried out in which 2,660 people participated from all countries where Braskem has operations.

In addition to the on-site education program, Braskem launched the leader self-development platform, which is a platform that offers videos, e-learning courses and action scripts aimed at developing the culture competencies. The diversity program expanded its activities in Brazil and launched efforts to foster race equality and LGBT rights, and continued to dedicate efforts in the area of gender equality, which were launched in association with the federal government's Gender and Race Equality Program and developed an action plan based on the program's guidelines. In 2016, Braskem signed the letter of commitment to LGBT rights. Braskem is the first Brazilian company to sign the commitment. In the area of gender equality, two editions of the Braskem Women's Forum were held in all regions of Brazil, which featured lectures on women in the workplace, to engage Team Members on the topic and reinforce its importance. To improve the facilities made available to Team Members, Braskem created dedicated spaces in all regions for mothers to express and store breastmilk, and also built or remodeled 73 bathrooms at industrial sites. In view of Braskem's performance on this front, it was a finalist in the Women Empowerment Principles Award sponsored by UN Women and received honorable mention for its work on promoting gender equality.



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

Income Statement (R\$ million)	2016	2015	Change
CONSOLIDATED	(A)	(B)	(A)/(B)
<b>Gross Revenue</b>	<b>55,378</b>	<b>53,526</b>	<b>3%</b>
<b>Net Revenue</b>	<b>47,664</b>	<b>46,880</b>	<b>2%</b>
Cost of Good Sold	(34,965)	(36,712)	-5%
<b>Gross Profit</b>	<b>12,699</b>	<b>10,168</b>	<b>25%</b>
Selling Expenses	(1,411)	(1,083)	30%
General and Administrative Expenses	(1,477)	(1,280)	15%
Expenses with Research and Development	(162)	(170)	-4%
Investment in Subsidiary and Associated Companies	30	2	1255%
Other Net Operating Income (expenses)	(3,752)	(731)	413%
<b>Operating Profit Before Financial Result</b>	<b>5,926</b>	<b>6,906</b>	<b>-14%</b>
Net Financial Result	(6,091)	(2,475)	146%
Financial Expenses	(3,571)	(3,163)	13%
Financial Revenues	690	585	18%
Foreign Exchange Variation, net	(3,210)	103	-3220%
<b>Profit Before Tax and Social Contribution</b>	<b>(165)</b>	<b>4,431</b>	<b>-104%</b>
Income Tax / Social Contribution	(616)	(1,660)	-63%
Discontinued operations result	27	6	321%
<b>Net Profit</b>	<b>(754)</b>	<b>2,777</b>	<b>-127%</b>
<b>Attributable to</b>			
Company's shareholders	(436)	3,018	-114%
Non-controlling interest in Braskem Idesa	(318)	(242)	32%

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

EBITDA Statement R\$ million	2016	2015	Change
CONSOLIDATED	(D)	(E)	(D)/(E)
<b>Net Profit</b>	<b>(729)</b>	<b>2,760</b>	<b>-126%</b>
Income Tax / Social Contribution	616	1,661	-63%
Financial Result	6,091	2,476	146%
Depreciation, amortization and depletion	2,678	2,116	27%
Cost	2,332	1,871	25%
Expenses	345	245	41%
<b>Basic EBITDA</b>	<b>8,656</b>	<b>9,012</b>	<b>-4%</b>
Provisions for the impairment of long-lived assets (i)	(23)	273	-108%
Adjustments in discontinued operations result (ii)	11	48	-77%
Results from equity investments (iii)	(30)	(2)	1255%
Others (iv)	2,893	-	0%
<b>Adjusted EBITDA</b>	<b>11,507</b>	<b>9,331</b>	<b>23%</b>
<b>EBITDA Margin</b>	<b>24.1%</b>	<b>19.9%</b>	<b>4 p.p.</b>

<b>Adjusted EBITDA US\$</b>	<b>3,304</b>	<b>2,800</b>	<b>18%</b>
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- (i) Represents the accrual and reversal of provisions for the impairment of long-lived assets (investments, property, plant and equipment and intangible assets) that were adjusted to form EBITDA, since there is no expectation of their financial realization and if in fact realized they would be duly recorded on the statement of operations.
- (ii) Corresponds to the results of quantiQ and IOAG (Note 5 to the 2016 Financial Statements)
- (iii) Corresponds to results from equity investments in associated companies and joint ventures.

[8] The consolidated financial statements for 2015 were restated retrospectively, due to:

- (i) Restatement of taxes provisions

As informed in Note 23.3(b), between 2006 and 2014 the Company made payments to certain companies without any corresponding evidence of services actually provided. These payments were initially taxed at zero rate of income tax at source (IRF) and considered as deductible for income tax (IR) and social contribution on profit (CSL). Upon the identification from the lack of corresponding services, the Management of Braskem determined the payment of all taxes owed and a revision of deferred income tax and social contribution. The main tax assessed was the IRF with a rate of 35%. In addition, these payments were considered as non-deductible for the purpose of calculating IR and CSL. The amounts involved in this matter are disclosed in Note 23.3(c).

- (ii) Other immaterial adjustments

In view of restatement of these financial statements of 2015, the Management of Braskem decided to recognize other adjustments in prior years. The impact of these adjustments are being demonstrated in the column "Adjustments – Other" as shown on the table below.

(iv) Adjustments made because they do not impact operating cash generation as per the Company's understanding. The main impact is related to the provision under the Leniency Agreement (Note 30 to the 2016 Financial Statements).

**EXHIBIT III**

**Consolidated Balance Sheet<sup>8</sup>**

**(R\$ million)**

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ASSETS (R\$ million)	12/31/2016 12/31/2015 Change		
	(A)	(B)	(A)/(B)
<b>Current</b>	<b>15,897</b>	<b>18,140</b>	<b>-12%</b>
Cash and Cash Equivalents	6,702	7,043	-5%
Marketable Securities/Held for Trading	1,190	415	187%
Accounts Receivable	1,634	2,756	-41%
Inventories	5,238	6,109	-14%
Recoverable Taxes	826	1,312	-37%
Prepaid Expenses	15	2	650%
Prepaid Expenses	102	166	-39%
Related parties	-	11	-100%
Derivatives operations	8	54	-84%
Others receivables	181	273	-34%
<b>Assets non current held for sale</b>	<b>360</b>	<b>-</b>	<b>n.a.</b>
<b>Non Current</b>	<b>35,566</b>	<b>42,487</b>	<b>-16%</b>
Marketable Securities/ Held-to-Maturity	-	46	-100%
Accounts Receivable	70	20	254%
Advances to suppliers	62	135	-54%
Taxes Recoverable	1,088	1,318	-17%
Deferred Income Tax and Social Contribution	1,653	3,205	-48%
Judicial deposits	233	277	-16%
Related parties	-	145	-100%
Insurance claims	51	63	-20%
Derivatives operations	29	12	139%
Others receivables	141	192	-27%
Investments	92	86	7%
Property, Plant and Equipment	29,337	34,100	-14%
Intangible Assets	2,809	2,888	-3%
<b>Total Assets</b>	<b>51,822</b>	<b>60,627</b>	<b>-15%</b>
LIABILITIES AND SHAREHOLDERS' EQUITY (R\$ million)	12/31/2016 12/31/2015 Change		
	(A)	(B)	(A)/(B)
<b>Current</b>	<b>22,943</b>	<b>17,643</b>	<b>30%</b>
Suppliers	6,545	12,374	-47%
Financing	2,594	1,970	32%
Braskem Idesa Financing*	10,438	302	3353%
Derivatives operations	29	58	-50%
Salary and Payroll Charges	562	610	-8%
Taxes Payable	624	1,003	-38%
Dividends	3	754	-100%
Advances from Customers	203	120	70%
Leniency Agreement	1,354	-	n.a.
Sundry Provisions	113	94	20%
Post-employment Benefit	-	-	n.a.
Accounts payable to related parties	-	-	n.a.

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Other payables	476	359	33%
<b>Non Current Liabilities Held for Sale</b>	<b>95</b>	<b>-</b>	<b>n.a.</b>
<b>Non Current</b>	<b>27,063</b>	<b>42,038</b>	<b>-36%</b>
Suppliers	202	57	253%
Financing	20,737	25,381	-18%
Braskem Idesa Financing*	-	11,975	-100%
Derivatives operations	861	1,120	-23%
Taxes Payable	24	27	-10%
Accounts payable to related parties	-	-	n.a.
Intercompany Loan	1,621	1,539	5%
Deferred Income Tax and Social Contribution	511	773	-34%
Post-employment Benefit	162	170	-5%
Provision for losses on subsidiaries	-	-	n.a.
Advances from Customers	163	31	424%
Contingencies	985	554	78%
Leniency Agreement	1,499	-	n.a.
Sundry Provisions	206	99	107%
Other payables	93	312	-70%
<b>Shareholders' Equity</b>	<b>1,721</b>	<b>945</b>	<b>82%</b>
Capital	8,043	8,043	0%
Capital Reserve	232	232	0%
Profit Reserves	835	2,882	-71%
Other Comprehensive Income**	(6,322)	(9,061)	-30%
Treasury Shares	(50)	(50)	0%
Retained Earnings (Losses)	-	(417)	-100%
<b>Company's Shareholders</b>	<b>2,739</b>	<b>1,630</b>	<b>68%</b>
Non Controlling Interest on Braskem Idesa	(1,018)	(685)	49%
<b>Total Liabilities and Shareholders' Equity</b>	<b>51,822</b>	<b>60,627</b>	<b>-15%</b>

\* Includes the exchange variation of financial liabilities designated as hedge accounting (Note 17.4 to the 2016 Financial Statements).

At the reporting date for the financial statements as of December 31 2016, these clauses were not being complied with obligations customary in project finance contracts. In this sense, the entire balance of non-current liabilities, in the amount of R\$ 9,492 million, was reclassified to current liabilities, in accordance with CPC 26 and its corresponding accounting standard IAS 1 (Presentation of Financial Statements).

According to the standards mentioned above, such reclassification is required when a contractual breach entitles creditors to request the immediate repayment of the obligations in the short-term. In this context, note that none of its creditors has requested said immediate repayment of obligations and Braskem Idesa has been settling this obligation in accordance with its original maturity schedule. Additionally, Braskem Idesa has already entered into agreements with its creditors to obtain approvals for said contractual breach in order to return the entire amount reclassified from current liabilities to non-current liabilities.

\*\* Includes the exchange variation of financial liabilities designated as hedge accounting (Note 17.4 to the 2016 Financial Statements).



