





## DISCLAIMER ON FUTURE STATEMENTS

This presentation contains forward-looking statements. Such information is not only historical facts, but they reflect the goals and expectations of Braskem's management. The words "advance", "believe", "expect", "foresee", "intend", "plan", "estimate", "project", "goal" and similar are prospective statements. Although we believe that these forward-looking statements are based on reasonable assumptions, these statements are subject to various risks and uncertainties, and are made taking into account the information to which Braskem currently has access to.

This presentation is updated until September 30, 2020 and Braskem is not under any obligation to update it with new information and/or future events.

Braskem is not responsible for operations or investment decisions that are made based on the information contained in this document.

## **AGENDA**

- 2020 Results
  Pedro Freitas (CFO)
- Braskem Idesa
  Stefan Lepecki (CEO of Braskem Idesa)
- Petrochemical Scenario
  Rosana Avolio (Investor Relations Leader)
- Sustainable development

  Jorge Soto (Leader of Sustainable Development)
- Transform for Value
  Celso Procknor (Leader of Transform for Value)
- 2021 Priorities

  Roberto Simões (CEO)
- Q&A

2020 Results Pedro Freitas (CFO)



## In 2020, we stayed focused on our five clearly defined strategic pillars







PRODUCTIVITY
AND
COMPETITIVENESS

Braskem as a first quartile operator



FEEDSTOCK AND SUPPLIER DIVERSIFICATION

Achieve balance between liquid and gas bases, increasing flexibility



GEOGRAPHICAL DIVERSIFICATION

 Increase global capacity, with operations outside Brazil representing more than 50% of EBITDA



PEOPLE, INNOVATION,
GOVERNANCE AND
REPUTATION

Recognition of Braskem as a global, sustainable, innovative company with a focus on people



CAPITAL ALLOCATION
/ FINANCIAL
DISCIPLINE

Maintenance of strong level of liquidity

## We improved performance in safety and in 2020, we are close to Best in Class

#### 1) Productivity and Competitiveness

### Personnel Safety - Accident Rate CAF<sup>1</sup> + SAF<sup>2</sup>

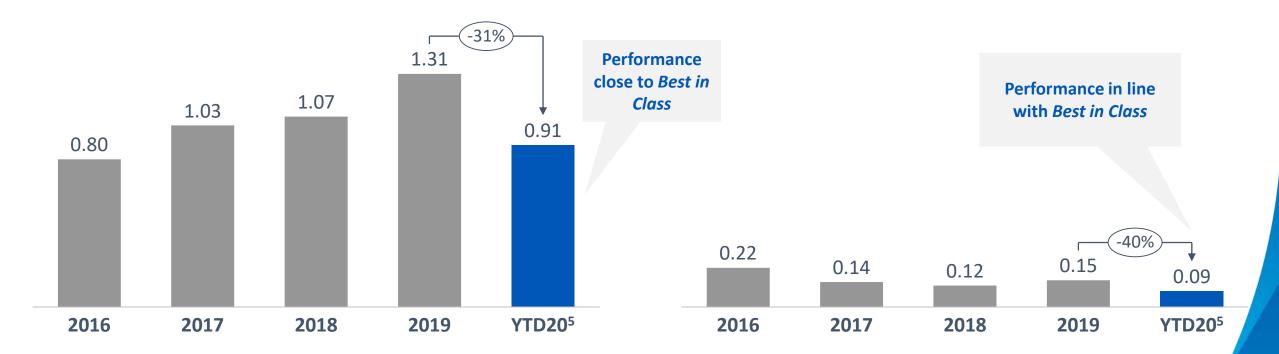
(events/1MM HH³)

Benchmarks: ACC<sup>4</sup> (3.25) and *Best in Class* (~0.80 - 0.90)

#### **Process Safety - Accident Rate TIER 1**

(events/1MM HH<sup>3</sup>)

Benchmarks: ACC<sup>4</sup> (0.45) and *Best in Class* (~0.10 - 0.20)



SAFE performance is and will always be central to Braskem's operations, being a PERMANENT AND NON-NEGOTIABLE VALUE In 2020, better performance in safety is explained, mainly by the actions of the Human Reliability program

## Industrial operations in Brazil and the US have returned to normal, after a temporary reduction in 2Q20

#### 1) Productivity and Competitiveness

#### **Petrochemical Crackers in Brazil**

**Utilization Rate (%)** 



#### PP Plants in the US + Europe

**Utilization Rate (%)** 





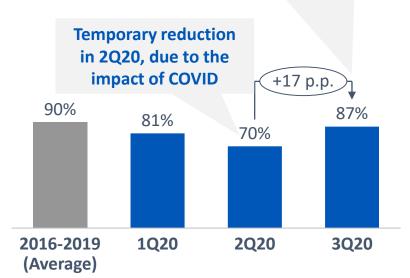
## PE Plants in Mexico

Utilization Rate (%)



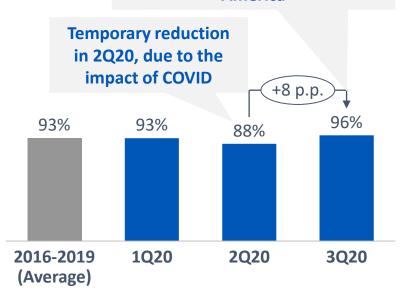
**Global Average for Ethylene: 85%**<sup>1</sup>

Normalization in 3Q20, due to the recovery of demand for resins in the Brazilian market



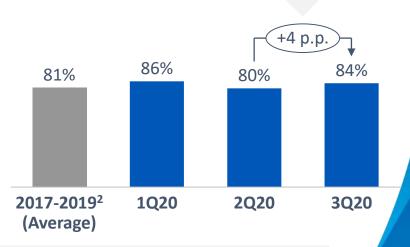
Global Average for PP: 84%<sup>1</sup>

Normalization in 3Q20, due to the recovery of PP demand in North **America** 



**Global Average for PE: 84%**<sup>1</sup>

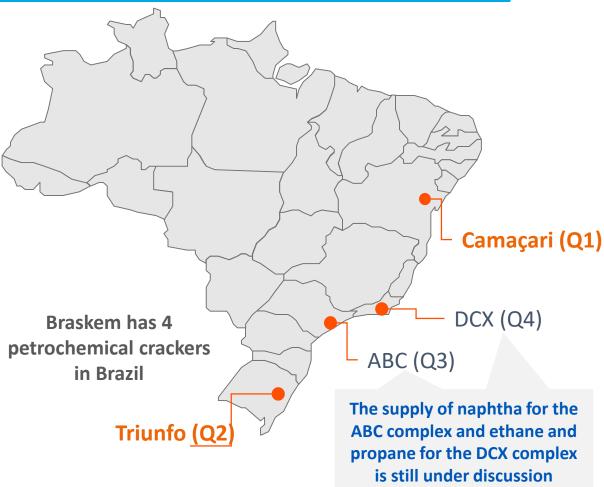
In 2Q20 and 3Q20, 13% of the utilization rate in the quarter came from the Fast Track solution



The operational performance in Mexico will be addressed in greater detail in the chapter focused on Braskem Idesa

## We signed contracts with Petrobras to supply naphtha to the petrochemical crackers in Bahia and Rio Grande do Sul

### 1) Productivity and Competitiveness



## **Highlights:**

- We signed contracts for the supply of **petrochemical naphtha** for Braskem's industrial units in **Bahia** and **Rio Grande do Sul**
- The contracts have a **5-year term** after the termination of the current contract (Dec/2020)
- Minimum annual volume of **650,000 tons** and, at the discretion of Petrobras, an additional maximum volume of up to 2.8 million tons per year
- Price: 100% of the ARA international reference

Additionally, to guarantee access to the logistics system of naphtha in Rio Grande do Sul, Braskem also renewed the tankage contracts with Petrobras and for movement and tankage with Transpetro

## We continue to move forward with our energy modernization projects and concluded new contracts that will increase our use of renewable energy

#### 1) Productivity and Competitiveness

### **Energy Modernization Projects**

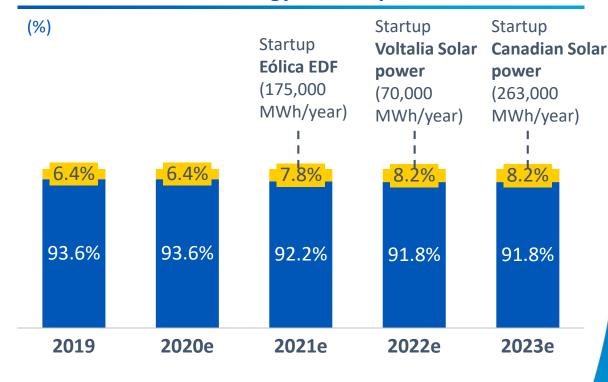
**Vesta Project:** replacement of steam turbines by highperformance electric motors in the ABC petrochemical cracker

- **Description**: increases production efficiency
- Physical Progress: 71% until September/2020
- Total investment planned: BRL 210 MM, of which BRL 147 MM was already disbursed up to September/2020
- Startup planned: Engines: May/2021; Co-generation: Aug/2021

**Project at the Neal plant (US):** upgrade of electrical infrastructure at the Neal plant (US)

- **Description**: Mitigates safety risks and ensures operation reliability
- Physical Progress: 97%
  - Total investment planned: USD 40 MM
- Startup planned: December/2020

#### **Breakdown of Total Energy Consumption**





The 03 renewable energy contracts signed by the Company place us close to reaching the mark of 1 million tCO2 emissions avoided

# We are radically transforming our core



Braskem of the near future

# ... and creating new business models

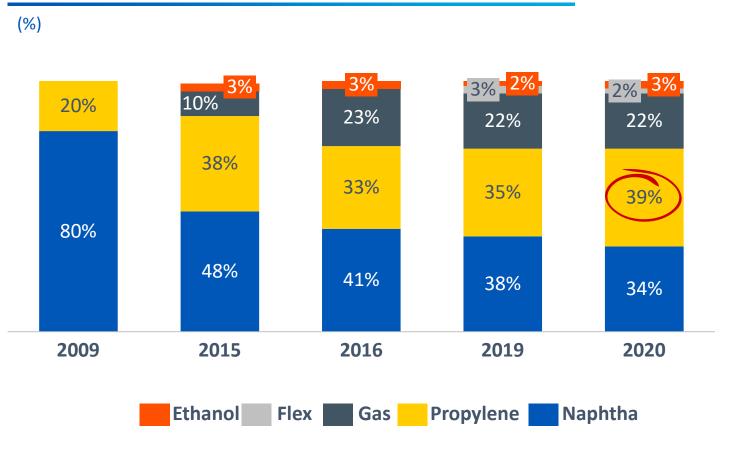


An e-commerce platform for customers to manage their orders, transforming the way we do business in the chemical and polymer industry

## In the feedstock diversification, we move toward a more balanced profile between oil and natural gas sources

#### 2) Feedstock and Supplier Diversification

## **Feedstock Profile by Production Capacity**



## Highlights:

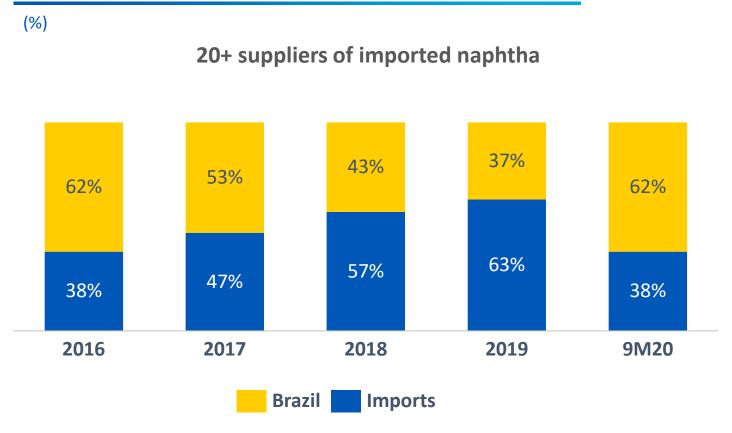
- Feedstock is a key element in the competitiveness of the petrochemical industry, corresponding to a large part of the production costs
- Therefore, we constantly seek to diversify our feedstock matrix to reduce the volatility of our bottom line
- PP plant in the US, propylene will be the most relevant feedstock for Braskem, surpassing the relevance of naphtha

Our strategy for diversifying feedstock aims to increase the profitability of the business and mitigate risks

## In line with our supplier diversification strategy, we continue to acquire naphtha through supply agreements with international suppliers

2) Feedstock and Supplier Diversification





## Highlights:

- Braskem has **flexibility in the supply of naphtha** and, depending on the current
  strategy, may increase or decrease the
  purchase volume of imported naphtha
- In the 1<sup>st</sup> semester of 2020, we chose to buy a volume of domestic naphtha above the previous years, due to a mutually beneficial opportunity with Petrobras
- On this occasion, Braskem obtained a discount on the price of the feedstock and Petrobras managed to operate its refineries at a higher utilization rate

This year, naphtha imports decreased compared to 2019, but continued to represent an important part of our total consumption

## Abroad, we also have a diversified profile of feedstock suppliers

#### 2) Feedstock and Supplier Diversification

	Braskem America	Braskem Europe	Braskem Idesa	
Business Model	Non-integrated PP Business	Non-integrated PP Business	Integrated PE Business	
Assets <sup>1</sup>	6 PP plants	2 PP plants	1 cracker and 3 PE plants	
Feedstock	100% Propylene	100% Propylene	100% ethane	
Production Capacity	2,020 kt/year of PP	625 kt/year of PP	1,050 kt/year of PE and Ethylene	
Strategy	Supply flexibility through a variety of propylene sources, such as PDHs <sup>2</sup> , refineries and crackers		Local supply, supplemented by imports	
Number of suppliers	+15	+5	2+ with other suppliers under analysis	

## With regard to geographical diversification, we had one of the most relevant achievements of the year, by starting commercial production at our new PP plant in the US (Delta)

3) Geographical Diversification

## **Delta Conclusion**

- The new plant is located in **La Porte**, Texas, and has a production capacity of **450,000 tons per year**
- The project had a **safety performance in the 1**<sup>st</sup> **quartile**, as well as **excellent execution (cost and schedule)** in a challenging environment (COVID and hurricanes)
- The investment is in line with our strategy for diversification of feedstock and geography
- In **October**, production of our new PP plant in the United States (Delta) was **36,000 tons**, near the plant's monthly production capacity of about 38,000 tons

**Delta Pellets** 









At the end of September, we organized Delta Day, an online event where we talked about the new PP plant in the US.

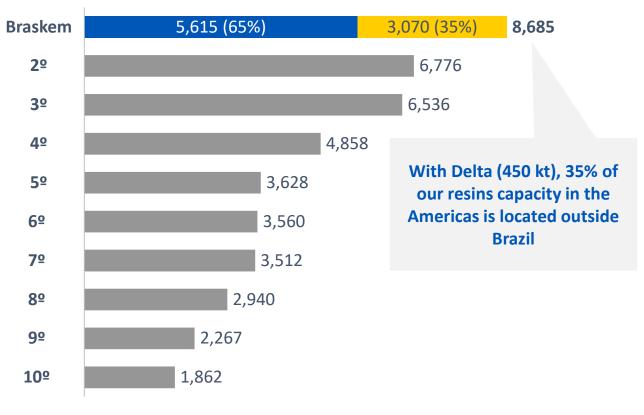
The complete material can be accessed on the Company's IR website

## With Delta's conclusion, we became an even more global company and now 40% of our total resins capacity is located outside of Brazil

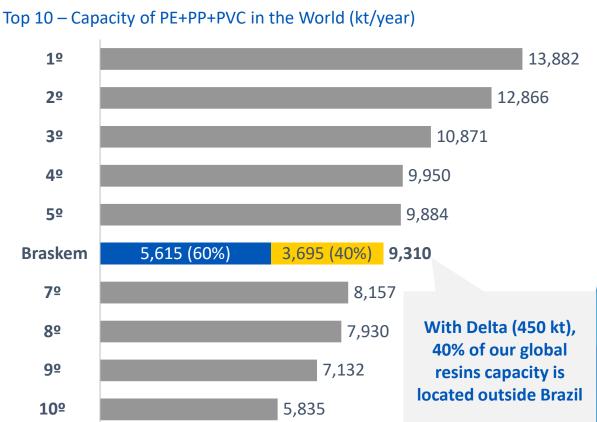
3) Geographical Diversification

### BRASKEM IS THE LEADER IN THE PRODUCTION OF THERMOPLASTIC RESINS IN AMERICAS...

#### Top 10 – Capacity of PE+PP+PVC in the Americas (kt/year)



## ... AND THE SIXTH LARGEST THERMOPLASTIC RESINS PRODUCER IN THE WORLD



Abroad Brazil

## In Alagoas, we continue focused on ensuring the safety of people

4) People, Innovation, Governance and Reputation

#### **SAFETY OF PEOPLE**



Removal of residents from risk areas and their resettlement



Financial compensation



Psychological support



Maintenance actions in affected neighborhoods and safety for residents



Actions to prevent disease proliferation through pest control and monitoring

#### **SOLUTION FOR THE GEOLOGICAL PHENOMENON**



Collaboration with the investigation for the causes of the geological phenomena



Drainage and sewage works



Periodic monitoring of the soil in Alagoas



Studies with sonars to assess the conditions in 35 Braskem salt mines



Permanent closure works of salt mines

More than 1,000 PROFESSIONALS mobilized among social technicians, lawyers, engineers, psychologists, among others.

## **Provisions**<sup>1</sup> related to the geological event in Alagoas

#### 4) People, Innovation, Governance and Reputation

1<sup>st</sup> Provision
January, 2020
(~R\$3.4 billion)

2<sup>nd</sup> Provision
July, 2020
(~R\$1.6 billion)

3<sup>rd</sup> Provision September, 2020 (~R\$3.5 billion)

- ~R\$1.7 billion: Support the relocation and indemnification of residents of the areas at risk located in the affected districts (amount transferred to another Braskem bank account)
- ~R\$1.0 billion: actions to monitor and close the salt mining wells (environmental)
- ~R\$700 million: other measures not covered by the Agreement

- **~R\$850 million:** possible assistance measures for residents of the new areas
- ~R\$750 million: additional expenses expected from the measures to definitively shutdown the salt mining activities in Maceió, the operation management and the relocation of properties included after technical analysis, among others

 ~R\$3.5 billion: implementation of potential new measures related to the geological event in Alagoas. This amount includes the potential short-term and long-term impacts

The total balance of provisions was R\$ 7.9 billion in 3Q20 - R\$ 3.7 billion accounted in current liabilities and R\$ 4.2 billion in non-current liabilities

- In November 26, 2020, Braskem informed the market that became aware of a letter from the National Mining Agency (ANM) regarding measures for the closure of salt extraction activities in Maceió with the closure of the mine including the backfilling with solid material of a number of additional salt wells.
- For the implementation of the measures defined by ANM in the Letter and taking into account the preliminary information that the Company obtained to date and without the benefit of discussions with ANM, the Company estimates approximately R\$3 billion in costs and expenses in addition to the amounts already booked.

## In people management, we are among the best employers in the Forbes ranking

4) People, Innovation, Governance and Reputation

# **Forbes**

7 Brazilian companies are among the best employers in the world in 2020

- Braskem is among the 7 Brazilian companies that comprise the list of best employers in the world according to Forbes
- In total, **750 companies** from **45 countries** make up the ranking made in partnership with the Statista market research company
- Among the relevant points, questions were addressed about the conduct of each company in the face of the COVID crisis, the company's ecological footprint, talent development, gender equality and social responsibility

At Braskem, people are encouraged to build their own path, with numerous development opportunities and career possibilities

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## We were recognized as one of the most engaged companies in open innovation

#### 4) People, Innovation, Governance and Reputation



100 Open Corps is the network formed by the most engaged leading companies in transforming current reality.

- The international platform 100 Open Startups, which connects startups to large companies, announced the ranking of 100 Open Corps, leading companies in open innovation in the country
- For the third consecutive time, Braskem was classified as one of the companies most engaged with startups in Brazil
- The achievement of this recognition is the result of the **effort of different teams within the company,** such as Innovation & Technology, Digital Center and Braskem Labs
- Reference for the market, Ranking 100 Open Corps considers objective criteria, strictly linked to the business relations established between startups and large companies

For Braskem, innovation has a fundamental role and contributes to the understanding of new opportunities to contribute to improving people's lives through chemicals and plastics

## In the governance part, an important achievement was the closure of external monitoring, after compliance with the commitments assumed with the DoJ and the SEC

4) People, Innovation, Governance and Reputation



## **MAIN DELIVERIES**

> 11,000 documents requested

> 80
revised corporate
policies and
guidelines, in
addition to the Code

interviews performed

> 400

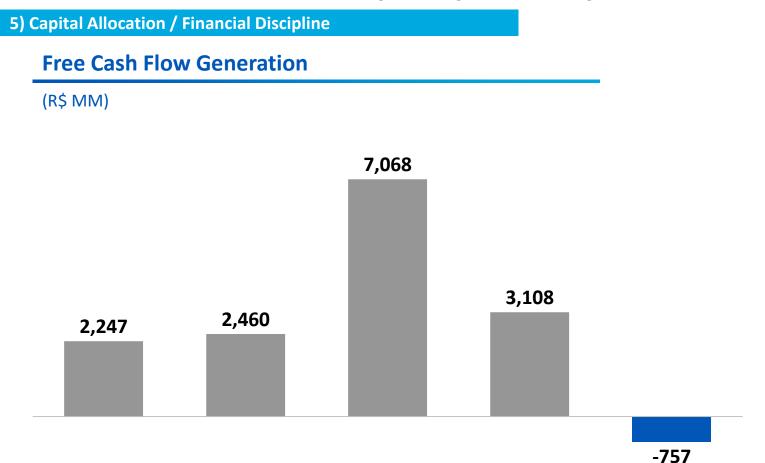
> 1,100 transactions tested

> 40

of Ethics

revised processes
including
strengthening of the
Compliance Program
and Financial
Controls

## Braskem has been presenting positive free cash flow generation; the impact of WC<sup>1</sup> on cash flow in 2020 is timely and potentially will be reversed at the end of 4Q20



2018

2016

2017

## Highlights:

- In the year to date, free cash flow generation was negative in R\$757 million, mainly due to:
  - Cash consumption in the 1<sup>st</sup> semester of 2020, due to the change in the feedstock purchase strategy (lower purchase volume of imported naphtha)
- In 3Q20, Braskem resumed positive free cash flow generation (R\$747 million) mainly explained by the increase in recurring EBITDA in the quarter and by the monetization of PIS/COFINS credits

The change in the feedstock purchase strategy impacts cash generation, because Braskem gets an extended payment term in the purchase of naphtha from foreign suppliers

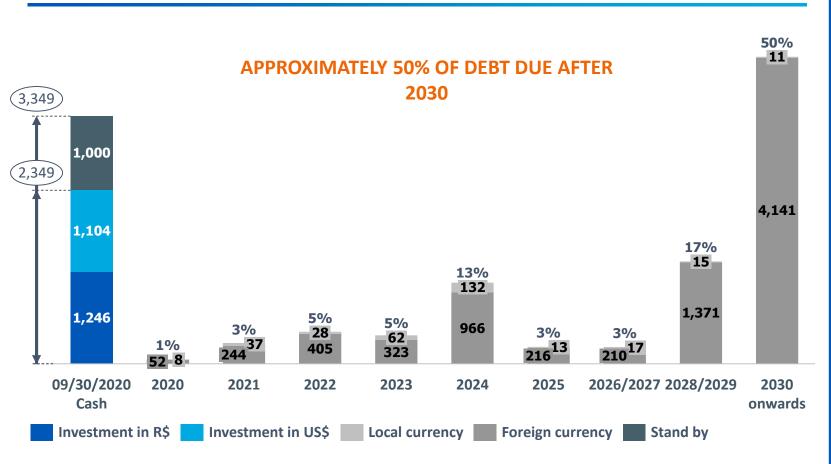
2019

9M20

## Strong liquidity position, with most debt with long-term maturity

#### 5) Capital Allocation / Financial Discipline





(1) It does not consider the amount of R\$ 1.5 billion allocated to the Financial Compensation and Relocation Support Program in Alagoas

#### **Debt Indicators**

- Sufficient liquidity to cover debt maturities during the next 53 months
- The average debt term is around 19 years
- The weighted average cost of the debt is exchange variation + 5.2%

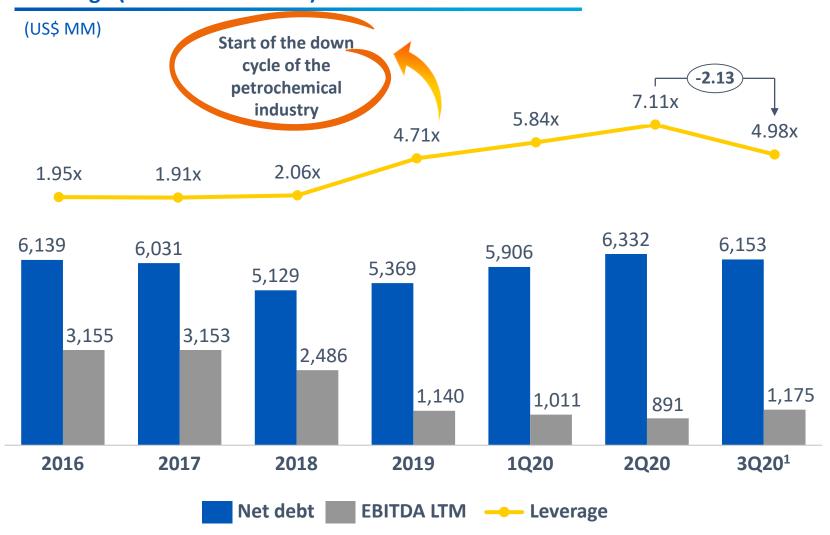
#### **Corporate Credit Rating - Global Scale**

Agency	Rating	Outlook	Date
Fitch	BB+	Stable	07/03/2020
S&P	BB+	Stable	07/08/2020
Moody's	Ba1	Negative	07/13/2020

## The resilience of our businesses added to our initiatives resulted in a reduction in our leverage, even in a down cycle of the petrochemical industry

5) Capital Allocation / Financial Discipline

## **Leverage (ex - Braskem Idesa)**



- The Company's net debt level remained in line over the years
- However the **EBITDA** is impacted by the down cycle of the petrochemical industry, due to the reduction in international spreads
- Therefore, the changes in the Company's leverage are associated with the sector's down cycle periods

## We have adopted some measures to preserve cash, maintain financial strength and the resilience of our businesses

5)	Capita	A	location /	Finan	icial	Discip	line
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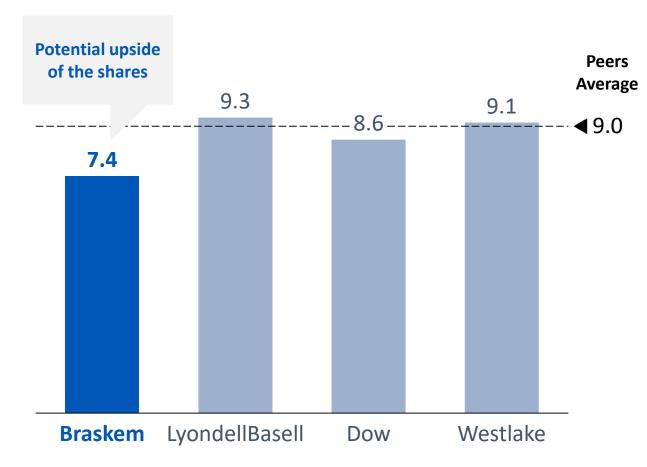
	Initiatives	Description	Status	
1	Hybrid Bond Issuance	<ul> <li>Issuance in the total volume of US\$600 million, with 50% equity treatment by S&amp;P and Fitch</li> </ul>	Issuance concluded in July/20	<b>√</b>
2	CAPEX Reduction	<ul> <li>Reduction of planned investments for 2020 from US\$721 million to approximately US\$600 million</li> </ul>	2020e = ~US\$600 million	<b>O</b>
3	Fixed Costs Reduction	<ul> <li>Reduction of fixed costs by approximately 10%, compared to 2019</li> </ul>	Reduction of approximately 9% compared to the same period in 2019 (January to October/2020)	<b></b>
4	Working Capital Optimizations	<ul> <li>Working capital optimizations under discussion with relevant suppliers</li> </ul>	Ongoing conversation with relevant suppliers	<b>S</b>
5	Taxes Monetization	<ul> <li>Monetization of PIS/COFINS credits of approximately US\$300 million in 2 years</li> </ul>	Monetization of approximately R\$1 billion (January to September/20)	Ø

Braskem is working on implementing measures to reduce its corporate leverage to be reassigned as an investment grade company

## Braskem's EV/EBITDA multiple is discounted in relation to its Peers

#### 5) Capital Allocation / Financial Discipline

### **EV/EBITDA<sup>1</sup> Indicator**



## **Highlights:**

- Braskem has similar characteristics to its main peers with public capital, such as:
  - Global company, with industrial and commercial presence in several countries and continents
  - **Diversified feedstock profile**, which allows profitability of the business to be increased and risk to be mitigated
  - Leadership position in the markets it operates, among the largest petrochemical companies in the world
  - **Concrete contributions to Sustainable Development**, with relevant projects in relation to combating climate change and the elimination of solid waste
  - Consistent cash generation throughout the cycle

Braskem Idesa Stefan Lepecki (CEO of Braskem Idesa)



## **RECAP:** Summary of our business in Mexico

#### **Braskem Idesa (BI)**



#### **Overview:**

- Joint Venture formed by Braskem (75%) and Idesa Group (25%)
- Integrated petrochemical complex for the production of ethylene, high and low density polyethylene in the city of Nanchital, state of Veracruz
- Production capacity: ~1.1 million tons/year of ethylene and polyethylene
- Assets: 1 cracker, 3 PE plants and integration with utilities (energy, water and logistics)
- Feedstock:
  - Ethane supplied through a 20-year contract with PEMEX
  - Delivery or pay clauses for PEMEX / take or pay clauses for Braskem Idesa
- Startup: April 2016
- Investment: US\$5.2 billion
- Financing of US\$3.2 billion via Project Finance Limited-Recourse with 17 banks

Largest
petrochemical
complex ever built
in Latin America

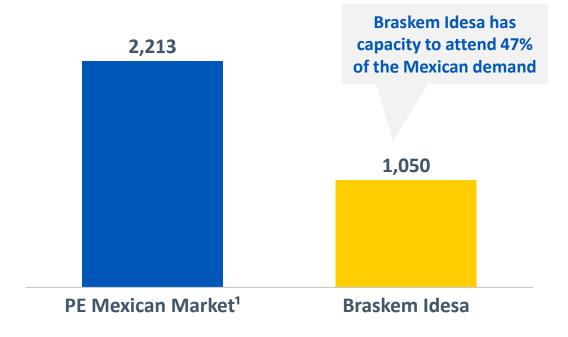
## Braskem Idesa is an important asset for the petrochemical industry and the Mexican economy

**Braskem Idesa (BI)** 

### PE market vs. Capacity of Braskem Idesa

(kt/year)

### Braskem Idesa is Mexico's largest PE producer



## **Commitment to Mexico:**

- Braskem Idesa has made Mexico's largest private industrial investment in the last 30 years (US\$5.2 billion)
- The Petrochemical Complex in Mexico generates important benefits for Mexico, such as:
  - i. quality jobs, with ~830 direct jobs and ~2,200 indirect jobs
  - ii. significant positive impact on the trade balance
  - iii. high quality polyethylene production
- Structured customer portfolio, formed by more than 200 companies, providing high quality technical assistance in Mexico and competitive exports to more than 40 countries

Braskem Idesa Petrochemical Complex represents an important advance for the petrochemical industry in Mexico and adds value to the entire production chain in the country

Source: Braskem. Note (1): Data from 2019.

## Braskem Idesa has strategic differentials that makes the business one of the most competitive in the petrochemical sector

1,050 kt/year



## Braskem Idesa (BI)

## Integrated and global scale complex

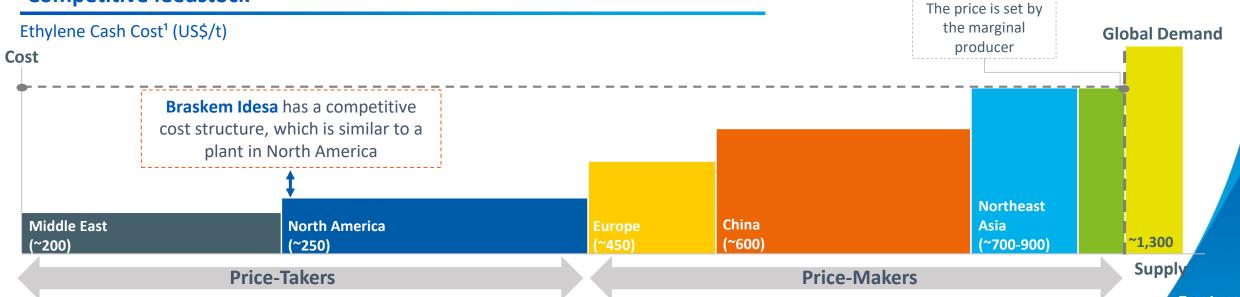
- Low cost petrochemical complex with "state-of-the-art" technology
- Global Scale Plants



### **Commercially competitive and diversified**

- **Strategic geographical position,** access to a deficient local market and exports on all continents
- Consolidated customer portfolio, formed by more than 200 active customers and synergies with Braskem's sales channels globally
- More than **60% of the sales are focused on the consumer** sector, resilient to the volatilities of the economy

### **Competitive feedstock**



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## Information about the feedstock supply contract

#### **Braskem Idesa (BI)**



#### **Process**

- The ethane supply agreement between Braskem Idesa and Pemex was the result of an international public auction process in which more than 30 Mexican and international companies participated
- Braskem Idesa was the winner for offering the best technical and economic proposal to Pemex, and the main clauses and conditions were previously proposed by a group formed by Pemex and several government departments
- The formula, with international price references, used and proposed by Pemex to establish the price of ethane is **typical in long-term contracts for feedstock**
- This price formula was approved by the Energy Regulatory Committee (*Comissão Reguladora de Energia*, CRE), an independent regulator of the energy market in Mexico

### **Commitments**

- The contract is governed by the "take or pay" / "delivery or pay" model, typical of long-term procurement associated with infrastructure investments, such as pipelines, petrochemicals or thermoelectric
- The **commitments** that are part of the contract are **common contractual clauses in contracts of this nature** and were reviewed by the project finance banks

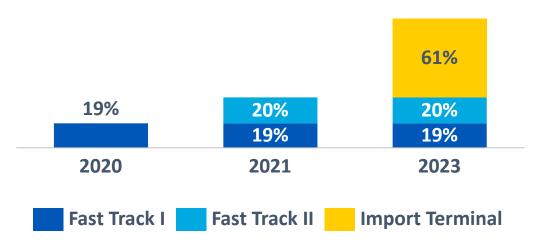
The Company reinforces its commitment in the search for constructive solutions with Pemex for the situation of lack of ethane in Mexico

## A clear plan to increase the supply of Ethane in the country; In Feb/20, we started to import ethane from the US



#### **Braskem Idesa (BI)**

	Capacity (kpbd¹)	Total
Fast Track I	12	
Fast Track II (Expansion)	+13	+25
Import Terminal	+40	+65

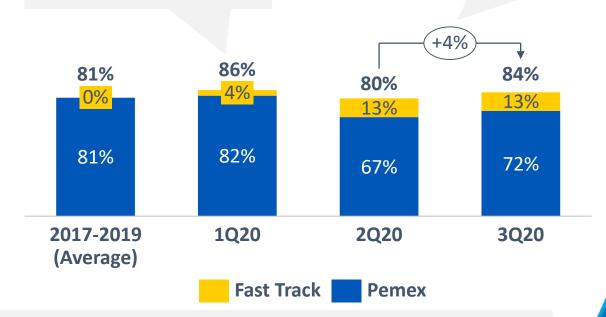


#### **PE Plants in Mexico**



Start of ethane imports from the United States in February 2020

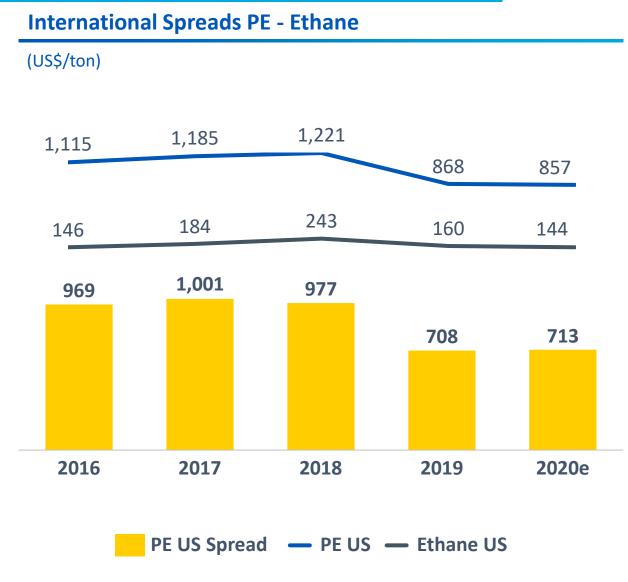
In 2Q20 and 3Q20, 13% of the utilization rate in the quarter came from the Fast Track solution



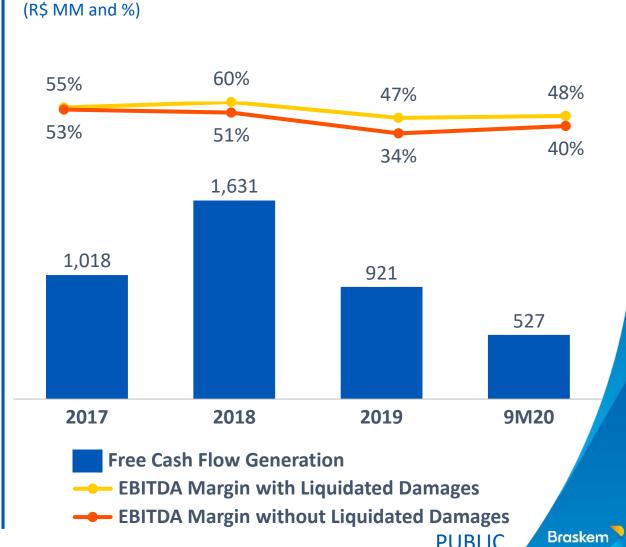
In addition, Braskem Idesa is currently expanding its Fast Track operations, with the goal of reaching volumes of more than 20,000 barrels daily, which represents approximately 30% of the utilization rate in Mexico

Similar to previous years, Braskem Idesa has been showing strong and positive free cash flow generation and EBITDA Margin, even in a adverse scenario

**Braskem Idesa (BI)** 



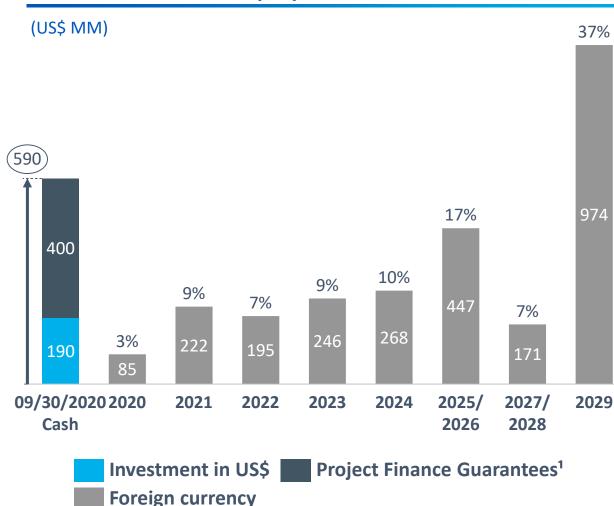




## At the end of 3Q20, approximately 37% of debt maturities after 2030, with 6.15x leverage







### Leverage (Braskem Idesa)



## **Braskem Idesa priorities for 2021**

#### **Braskem Idesa (BI)**



#### **Feedstock**

- Complete the expansion of the Fast Track ethane import project from 12 kbpd¹ to 25 kbpd¹
- Approve and start the construction of the project to develop an Ethane Import Terminal and a
  pipeline to transport it to the BI petrochemical complex
- Enable constructive solution with Pemex regarding feedstock contract

## **Operational**

- Ensure a utilization rate of around 90% of the total BI capacity
- Expand geographically the commercial activities, in line with Braskem's diversification strategy and seeking a better business profitability

#### **Financial**

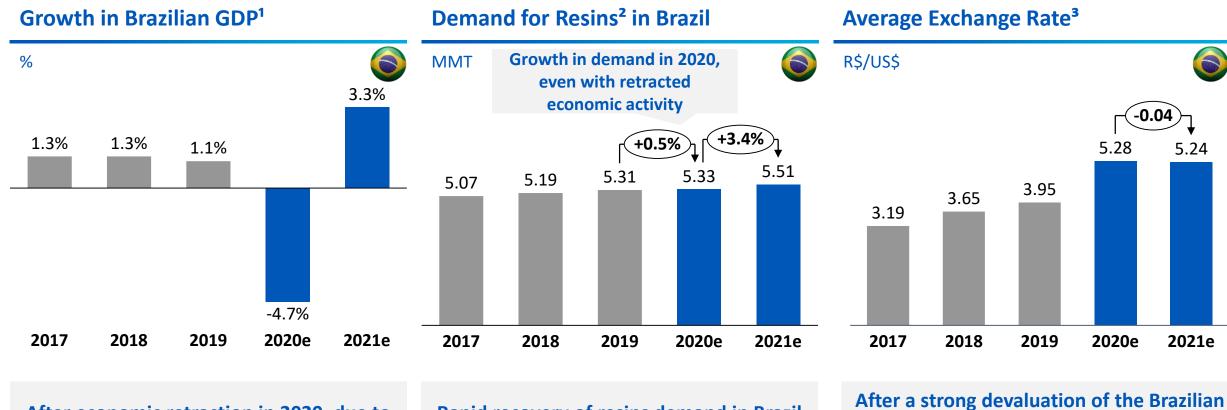
- Optimize the working capital to free up resources for the Company
- Reassess non-core assets as a way to continue the deleveraging process
- Continue with Project Finance debt refinancing process, with the aim of migrating to a Corporate model

Petrochemical Scenario Rosana Avolio (Investor Relations Leader)



## In Brazil, the expectation for an improvement in the economic scenario may offer an opportunity to transfer export products to the domestic market

**Petrochemical Scenario** 



After economic retraction in 2020, due to COVID, the expectation is of growth and resumption of economic activity in several sectors, if the pandemic is controlled

Rapid recovery of resins demand in Brazil in the 2<sup>nd</sup> half of 2020, with the expectation of maintaining the growth in 2021

Reais in 2020, a slight drop is expected in 2021, due to the increased appeal to foreign investment through higher interest rates

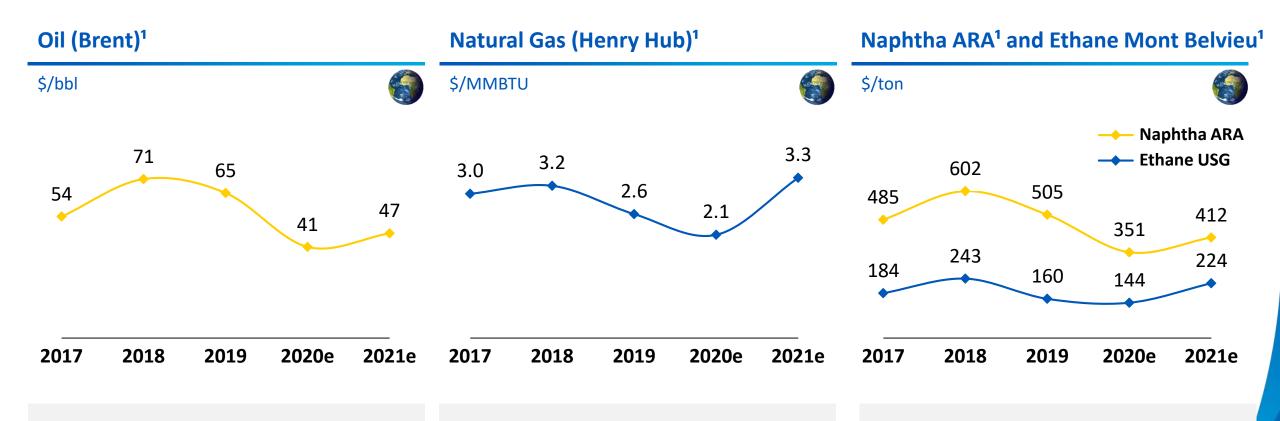
### Abroad, the control of the spread of COVID is a key factor in driving economic recovery

#### **Petrochemical Scenario**



# In 2021, the difference between the prices of the main petrochemical feedstock (naphtha and ethane) may decrease, increasing the competitiveness of naphtha-based producers

**Cenário Petroquímico** 



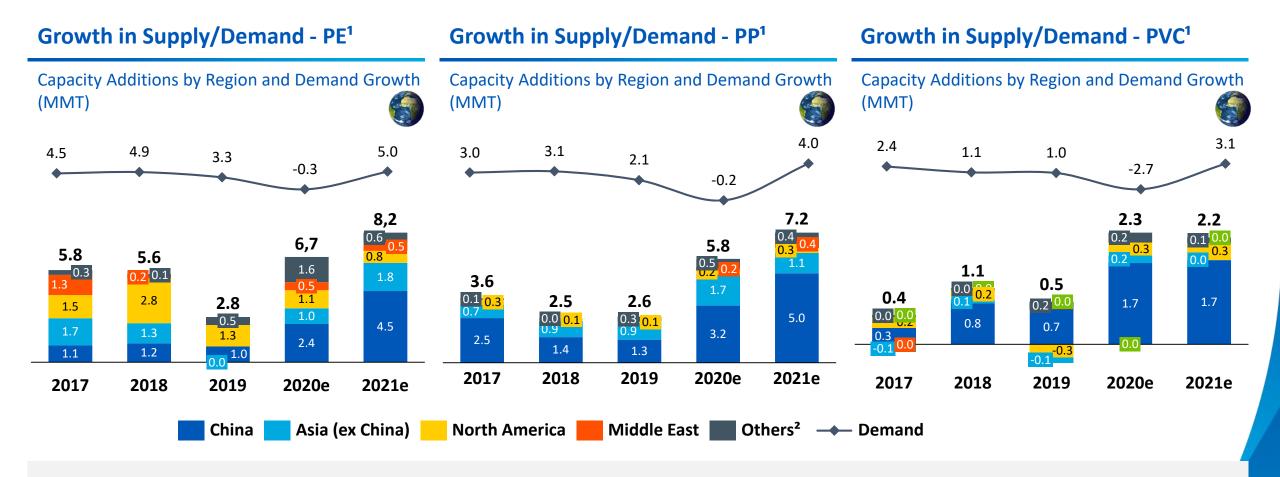
In 2021, expectation of an increase in the price oil, due to the recovery of the global economy and the maintenance of production cuts by OPEC+ members

Expectation of an increase in the price of Natural Gas next year, due to the lower production of Associated Gas<sup>2</sup>

The expectation of a shorter NGLs<sup>3</sup> balance brings better competitiveness for naphtha-based producers in 2021

# According to consultancies, China will concentrate capacity additions; however, delays/cancellations of projects may occur, reducing excess supply

**Petrochemical Scenario** 



Recently, external consulting firms have projected resins capacity additions above what actually was realized  $PE^3 = ^225\% / PP^3 = ^20\% / PVC^3 = ^75\%$ 

## PE and PP operation rates may be impacted by new capacities, whereas growth is expected in PVC

**Petrochemical Scenario** 







5.8

5.6

2.8

6.7

8.2

83%

# Growth of PE<sup>1</sup> Global Demand

# (MMT)

4.5

4.9

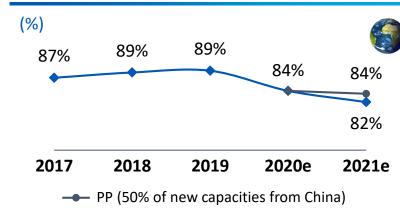
3.3

-0.3

5.0

New PE capacities may start operation with negative impact on global utilization rates

#### PP<sup>1</sup> Global Utilization Rate



#### Addition of PP<sup>1</sup> Global Capacity (MMT)

3.6

2.5

2.6

5.8

7.2

4.0

#### Growth of PP1 Global Demand (MMT)

3.0

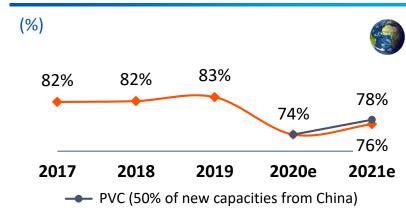
3.1

2.1

-0.2

New capacities may start operation, but global utilization rates must stay at healthy levels

#### **PVC<sup>1</sup> Global Utilization Rate**



#### Addition of Global PVC<sup>1</sup> Capacity (MMT)

0.4

1.1

0.5

2.3

2.2

#### **Growth of PVC<sup>1</sup> Global Demand** (MMT)

2.4

1.1

0.9

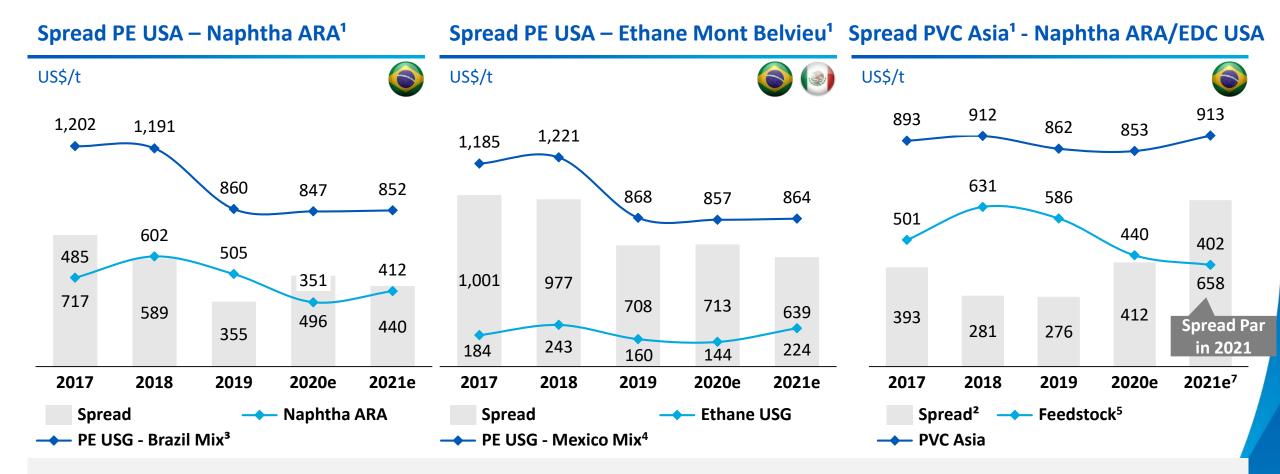
-2.0

3.0

Global PVC market should improve, with capacity additions lower than demand growth

# PE spreads can be further pressured if all expected capacity additions actually go into operation

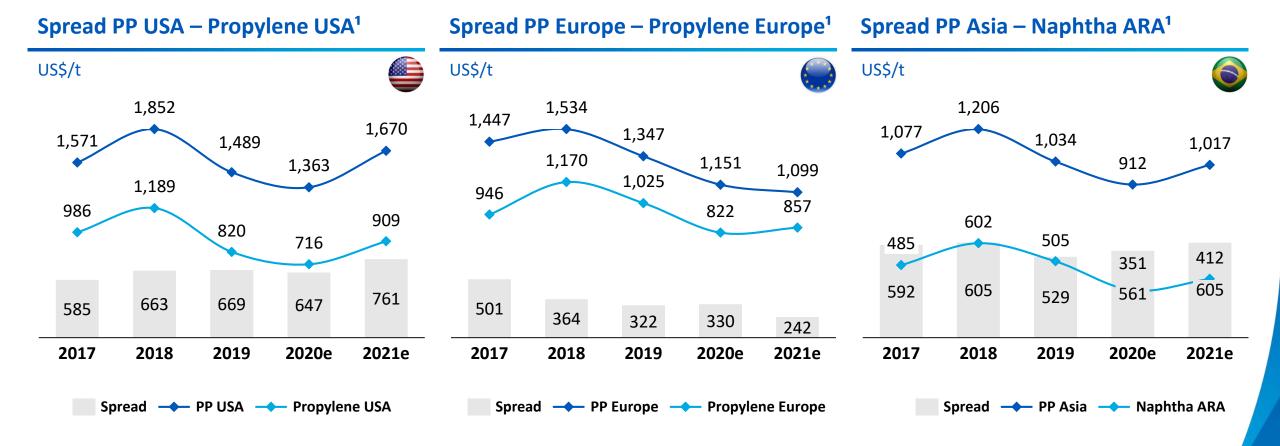
**Petrochemical Scenario** 



Recently, resins spreads were healthier compared to the initial projection by external consultants PE-Naphtha $^6$  = ~25%, PE-Ethane $^6$  = ~5% and PVC-Naphtha/EDC $^6$  = ~10%

### In relation to the PP spreads, the US remains the most profitable region

**Petrochemical Scenario** 



Recently, the spreads of Asia-Naphtha<sup>2</sup> PP were healthier (~10%) compared to the initial projection by external consulting While the spreads of PP-Propylene in the USA<sup>2</sup> and Europe<sup>2</sup> were in line with the initial projection

Sustainable development
Jorge Soto (Leader of Sustainable
Development)



# ALWAYS seeking INNOVATIVE AND SUSTAINABLE solutions

2002 CREATION OF BRASKEM



2007

Launch of the first polyethylene made with 100% renewable resources and the first ethylene made from sugar cane Creation of Formula 1 trophy with recycled resin from material collected during the qualifying session

2009



2010

Launch of the I'm green seal and inauguration of the green ethylene plant.

Aquapolo and Agua Viva Project, one of the biggest water treatment system and reuse in Brazil.

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Creation of the first plastic trophy for **Formula 1**, made from green polyethylene and designed by **Oscar Niemeyer** 

2008





2012

Launch of the **Ser+** (To be+) program to support **waste collectors** and promote recycling.



#### 2014

Braskem is appointed as one of the 50 most innovative companies in the world by Fast Company magazine, acknowledged for its research in bio-based products.





Made In Space partner to produce objects by 3D printing from green plastic.

Start of green EVA production.

Plastic cup reverse logistics program.

2016



Braskem is part of the **Dow Jones Sustainability portfolio**.

**Edukatu** Project: Education on conscientious consumption and sustainability.

2013

2015



Launch of I'm green recycled resins.

Launch of the **Braskem Labs** program



2017

Plastianguis program for awareness-raising about post-consumption in consumers.

Braskem emphasizes glocommitment with the Circular Economy.

Source: Braskem

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**Inauguration of a bio MEG plant** in Copenhagen.

Signatory of the Alliance to End Plastic Waste.

Solvent development from renewable source.

Partnership with **Join the Pipe** to distribute plastic bottles I'm green in the USA, Africa and EU.

I'm green

**Production capacity** expansion of green and recycled products.



# 2020: 10 years of Green PE - I'm Green

Braskem's plastic made out of a renewable feedstock: sugar cane



Production capacity of

**200 KTA** 

Equivalents to

+ 600 Thousand tons of CO2 captured/year

**Green PE for packaging applications** 



#### **AWARDS**

#### Chemical Week:

Best sustainable initiative at the Chemical Industry Financial Outlook & Sustainability Forum & Awards 2020. Chemical Industry Financial Outlook & Sustainability Forum & Awards 2020

**Chemical Week** 



Recognized by the Economic Commission for Latin America and the Caribbean (CEPAL) of the United Nations (UN) as one of the most transformative cases in sustainable development in Latin America in the Industry & Energy category.

Braskem

# GLOBAL POLICY of SUSTAINABLE development

For us, acting sustainably is **to meet the needs of all parties**, considering the immediate and future impacts.

This is what guides all our activities and our relationships with all the public.

The Policy sets a clear **Governance structure**, which involves the Board of Directors, Executive Board, and all team members.



# **OUR POLICY RELIES ON** STRATEGIC PILLARS FOR ITS **IMPLEMENTATION**

#### **PURPOSE**

Improve people's lifes creating sustainable solutions of chemicals and plastics

**Processes and resources** more Sustainable

Portfolio of products and services more sustainable

**Solutions** to allow society to have a more Sustainable life

Strong culture and management aligned with the principles Sustainable Development

Braskem



# BRASKEM MACRO SUSTAINABLE Development GOALS

As a result of a long and structured consultation process considering the vision of our target audience, relevant topics to our materiality matrix and the UN Sustainable Development Goals (SDG), we have outlined our own macro goals that guide our attention and investments in innovation.



# WE IMPROVED THE ENVIRONMENTAL IMPACTS IN OUR PLANTS SINCE 2002 UP UNTIL 2020 (ESTIMATED)

**ENERGY CONSUMPTION** 

(GJ / t)

-4%



WASTE WATER (m³/t)

-36%



WASTE (KG / t)

-63%



CARBON EMISSIONS INTENSITY

(tCO<sub>2</sub>e/t) (2008 a 2020)

-17%



WATER REUSE(%)

(2011 a 2020)

+28%



# PRIVATE SOCIAL investment PROJECTS

Project for the promotion of social inclusion and social and economic development of waste collectors and strengthen work of cooperatives:

Increase post-consumption waste sent for recycling. Training, improving waste collectors' work environment and increasing their income

## **Our impact**

+ 8 thousand beneficiary waste collectors

~150 cooperatives addressed

+ 2 thousand trained persons

+ 130 thousand tons of commercial waste





# GLOBAL VOLUNTEERING Program

SERVING TOGETHER TO IMPROVE PEOPLE'S LIVES

The **Volunteering Program** was set up as an opportunity to generate positive social and environmental impact in the surrounding of our operations and transform lives from practical work of our members in voluntary actions. Volunteers may participate in Scavenger hunts, a game in which they win points by performing actions in the community or in a campaign, a one-time action set up by Braskem lasting 1 to 2 days. In addition, we strengthen Braskem's position in the Circular Economy with WeCARE Week, a global volunteering week focused on this topic.

**5** participating countries (Brazil, Mexico, United States, Germany and Netherlands)

**26** cities

+ than 4.500 volunteers engaged

+ than 94 thousand beneficiaries

**26%** engagement

+ than 54 thousand donated items

+ than 32 thousand of volunteer work hours



# **ACKNOWLEDGMENTS**

Proud to be Braskem















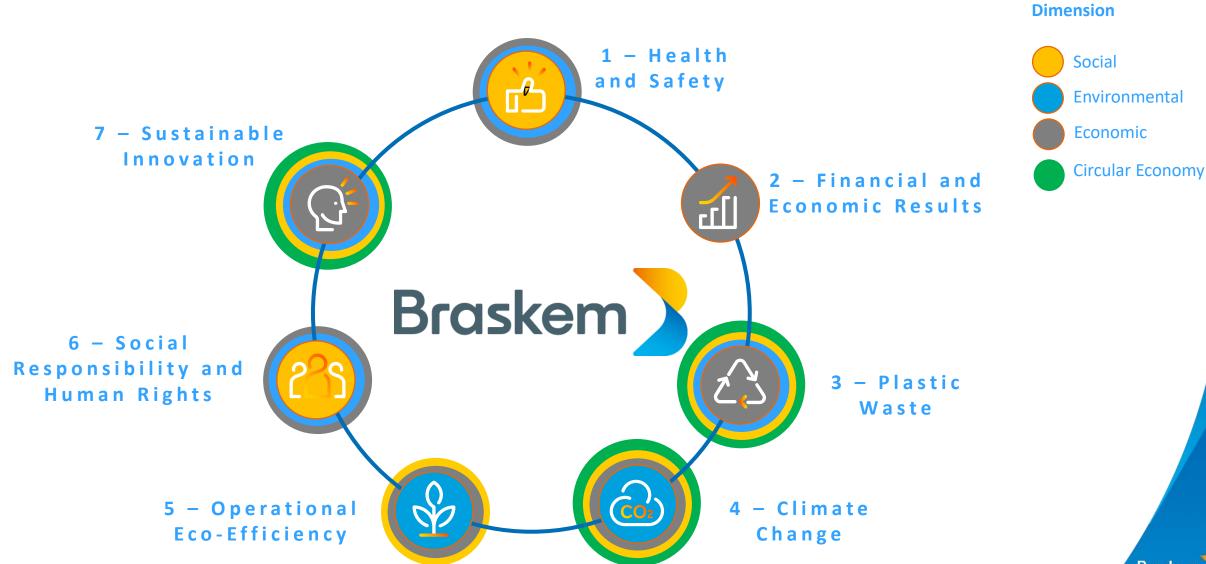




# New cycle of long term improvements

Has started (2021-2025/2030/2050)

Source: Braskem



# A strong ambition

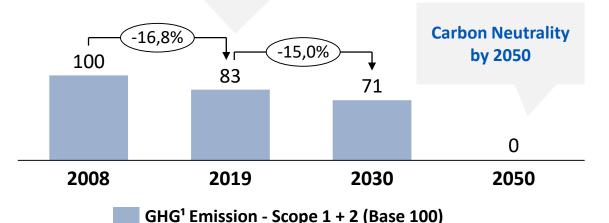
In combating climate change and eliminating plastic waste



#### MITIGATING CLIMATE CHANGE

- Achieve carbon neutrality by 2050
- Provide a 15% reduction in carbon emissions by 2030

# 2008-19 Most of the emissions reduction due to energy efficiency projects



#### **ELIMINATING PLASTIC WASTE**



- Expand I'm green™ portfolio aiming to include 300,000 tons of thermoplastic resins and chemicals with recycled content by 2025; and, by 2030, 1 million tons of such products
- By 2030, work to divert 1.5 million tons of plastic waste away from incineration, to landfills, or environment.



## We have a clear and flexible strategy to capture the best opportunities in...



1

#### **EMISSIONS REDUCTION**

Reduction of emissions focusing on energy efficiency, and increasing the use of renewable energy in current operations, establishing partnerships focused on innovation and technology

2

#### **EMISSIONS OFFSET**

 Offsetting emissions with potential investments in the production of chemicals and polymers from renewable sources 3

#### **EMISSIONS CAPTURE**

Capturing carbon
 emissions through research
 and development for the
 use of carbon emissions as
 a raw material



#### **MECHANICAL RECYCLING**

**CHEMICAL RECYCLING** 

 In the forefront of Circular Economy, Braskem will continue to pursue its mechanical and chemical recycling projects

Braskem



TOGETHER, WE WILL **BUILD A CARBON NEUTRAL CIRCULAR ECONOMY** 





Celso Procknor



# Industry and Braskem contexts require, at the same time, greater efficiency in the allocation of our resources and enabled the possibility of capturing synergies



#### CONTEXT OF THE INDUSTRY AND BRASKEM AT THE BEGINNING OF 2020

# DOWNTURN OF THE PETROCHEMICAL INDUSTRY



# RECOVERY OF INVESTMENT GRADE



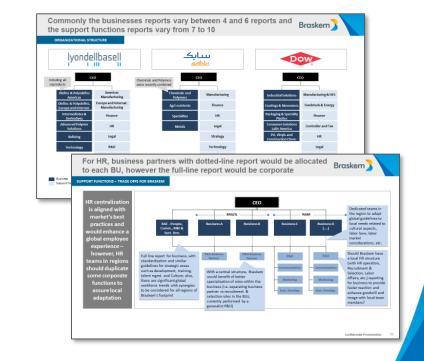
#### COMPANY REORGANIZATION





Fitch Downgrades Braskem's IDR to 'BB+'; Outlook Stable

Fitch Ratings-Chicago-02 July 2020:



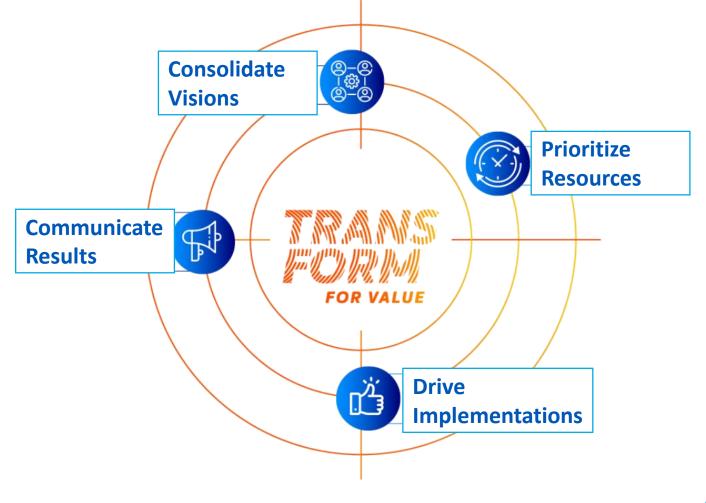
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In this scenario, we launched <u>Transform for Value</u>, a program that aims to coordinate, accelerate and focus on the company's main improvement initiatives



Similar to the forms of a Transformation Office, the program has 4 main goals:



**Accelerating Braskem's metabolism** 

## The consolidated vision of the improvement initiatives currently spread throughout the organization will encompass actions of various types and areas



#### **SOURCES OF TRANSFORMATIONAL OR IMPROVEMENT INITIATIVES**



#### TRANSFORM FOR VALUE

 Initiatives with program resource allocation



#### **DIGITAL CENTER**

 Initiatives led by Braskem's Digital Center



#### **CONTINUOUS IMPROVEMENT**

 Initiatives that seek continuous improvement without involving CAPEX



#### CAPEX C&P

 Projects that require CAPEX and target cost and/or productivity gains



#### **ENERGY**

 Competitive & sustainable energy initiatives



Source: Braskem

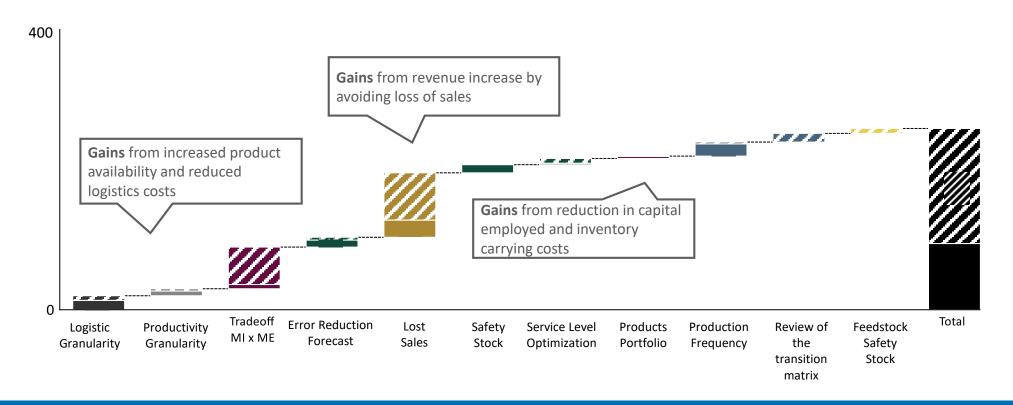
# Example of initiative: Redesign of Forecast-

## Redesign of Forecast-to-Stock and Order-to-Cash processes in SAM



#### Projected gains with FTS and OTC redesign

in R\$ MM/year



With these new processes and tools, we expect to increase revenue, reduce inventory levels and service costs, and, at the same time, increase the level of service and, consequently, client satisfaction

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# Example of initiative:

## Reliability days -> loss and maintenance cost reduction

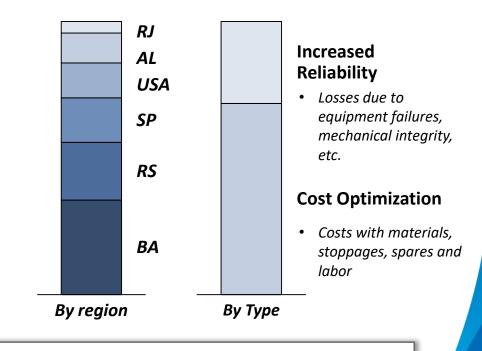


# BENCHMARK STUDY SHOWED THAT A SIGNIFICANT PART OF BRASKEM ASSETS ARE IN THE 3<sup>rd</sup>/4<sup>th</sup> QUARTILES IN COST OR EFFECTIVENESS OF MAINTENANCE



## POTENTIAL GAINS WERE BROKEN DOWN BY ASSETS AND BY CAPTURE TYPE

Potential gains, by region and by type

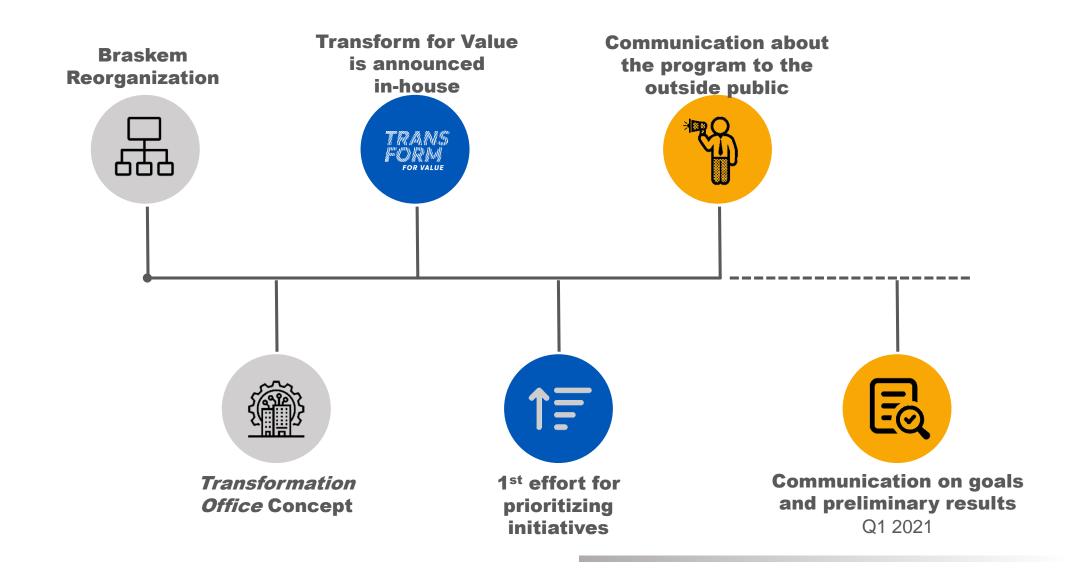


Potential gains of tens of millions of dollars per year (estimated ramp-up of up to 6 years)

Braskem

## Throughout 2021, we will bring more details about the evolution of the improvement pipeline and some of the initiatives we are implementing at Braskem





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# 2021 Priorities Roberto Simões (CEO)



# Braskem continues focused on seeking opportunities for growth, having a vast portfolio of new business projects, sustainability and innovation







#### **NEW BUSINESS**

- Advancement of the ventures we developed to try out new business models, such as:
  - An e-commerce platform for customers to manage their orders, transforming the way we do business in the chemicals and polymers industry
  - Solution that connects carriers and companies without an intermediary, being the future of freight service
  - An efficient and reliable sleepers<sup>1</sup> solution for the railway market
- Analysis of potential M&A opportunities, identifying potential synergies and designing a point of view on each transaction
- Assessment of multiple opportunities for organic growth, including through DBN<sup>2</sup> of our current assets
- Appreciation of basic chemicals and specialties chains

#### **SUSTAINABILITY**

- Evaluate opportunities for expansion of our biopolymer business (CO<sub>2</sub> Emission Compensation):
- Projects for the development of **chemical recycling** technology and expansion of production through **mechanical recycling** (Circular Economy):
  - Mechanical: construction of a waste washing and extrusion unit in São Paulo
  - Chemical: development of catalysts
- **Energy efficiency initiatives,** (CO<sub>2</sub> Reduction and water consumption):
  - Replacing steam turbines with electric engines in Bahia and Alagoas
  - Generation of steam by burning biomass, replacing fossil fuel in Alagoas

#### **INNOVATION**

- Broad pipeline of Innovation and Technology (I&T) projects, with 130+ projects contributing to the growth of our business
  - Current pipeline of US\$ 1.5 billion NPV
     (Net Present Value) or US\$ 0.5 billion
     RANPV (Risk Adjusted Net Present Value)
- Digital Technologies radically transforming our core business, with more than 20 transformational initiatives in execution
  - Making our operations safer
  - Gaining operational productivity
  - Improving the quality of our products
  - Improving our customers' satisfaction

## **OUTLOOK BRASKEM | 2021 VERSUS 2020**

#### Brazil **United States** Demand growth in **Crackers Utilization Utilization Rate (PP)** Brazil Rate New PP plant Shifting product from Sales volume Sales volume (Delta) export **Petrochemical spreads Petrochemical spreads Fixed Cost Fixed Cost Recurring EBITDA Recurring EBITDA**

	Mexico	Braskem	Europe
Utilization Rate (PE)	Ramp-up of "fas	st	Utilization Rate (PP)
Sales volume	track" project		Sales volume
Petrochemical spreads	•		Petrochemical spreads -
Fixed Cost			Fixed Cost
Recurring EBITDA	•		Recurring EBITDA +

## Starting in 2021, Sustainability will be even more prominent in our corporate strategy



PRODUCTIVITY
AND
COMPETITIVENESS



FEEDSTOCK AND SUPPLIER DIVERSIFICATION



GEOGRAPHICAL DIVERSIFICATION



PEOPLE, INNOVATION,
GOVERNANCE AND
REPUTATION



**SUSTAINABILITY** 



CAPITAL ALLOCATION / FINANCIAL SOUNDNESS

#### **RATIONALE:**

- Braskem's business strategy is focused on sustainable development since its creation in 2002
- The Company has a broad portfolio of investments in projects related to Sustainability, such as:
  - Global production and commercialization of biopolymers and recycled resins (mechanical recycling)
  - Development of chemical recycling technology
  - Use of renewable energy in current operations and focus on energy efficiency
  - Potential partnerships aimed at capturing carbon emissions to be used as raw material
- Promotes the monitoring of the implementation of **new goals related to the fight against climate change and the elimination of plastic waste**
- It is in line with the **challenges of the planet, society** and strengthens the Company's reputation

Source: Braskem

### **Our priorities for 2021**





PRODUCTIVITY
AND
COMPETITIVENESS



Implement the Transform for Value Program initiatives



FEEDSTOCK AND SUPPLIER DIVERSIFICATION

- Find constructive ways to resolve the ethane shortage situation in Mexico
- Continue ramping up the complementary ethane import solution from the USA



GEOGRAPHICAL DIVERSIFICATION

- Implement the commercial strategy for the new PP plant in the USA
- Maximize synergy between regions where Braskem has industrial presence



PEOPLE, INNOVATION,
GOVERNANCE AND
REPUTATION

- Continue with the advances of the Financial Compensation and Relocation Support Program in Alagoas
- Strengthen ESG practices, improving Braskem's reputation among stakeholders



**SUSTAINABILITY** 

- Increase production volume and global commercialization of recycled resins
- Reduce CO2e emissions (scope 1 + 2) by implementing energy efficiency initiatives and use of renewable energy



CAPITAL ALLOCATION / FINANCIAL SOUNDNESS

- Maintain discipline in capital allocation and financial health during the downturn cycle
- Implement value creation initiatives

Source: Braskem

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## BRASKEM S.A.

