

Braskem Working While the Market Catches Up

Since the Brazilian petrochemical giant, Braskem, began producing “green plastic” in 2010, the company has become the world’s largest producer of biopolymers. By 2020, Braskem intends to be the global leader in sustainable chemicals.

However, Jorge Soto, the company’s Sustainable Development Director, said Braskem’s commitment to sustainability extends far beyond producing environmentally friendly products.

“Our commitment is much stronger and broader than that,” he said. Soto referenced the company’s Ten Macro-Objectives for Sustainable Development, adopted in 2013 with a 2020 target date.

“We have targets related to water efficiency, climate change, water use, energy efficiency. We have a broad view of the ways Braskem can contribute to a sustainable world. All of these aspects are very important to us. In each of them we have achieved important results.”

Big Presence in Many Categories

Braskem S.A., headquartered in São Paulo, Brazil, was formed in 2002, the product of a consolidation of six companies. More acquisitions and mergers since then have made Braskem Latin America’s largest petrochemical company, the largest thermoplastic resins producer in the Americas, and the largest biopolymer producer in the world. The company produces more than 16 million tons of thermoplastic resins and other chemical products each year.

Major uses of Braskem’s polyethylene, polypropylene, and polyvinyl chloride include consumer goods, food



Jorge Soto, has served as Sustainable Development Director at Braskem since 2009. He is co-chair of the International Organization for Standardization’s technical committee on sustainable purchasing. He is former head of the Global Compact Network Brazil.

Soto has a PhD in sustainable development, a master’s in business administration and a master’s in chemical engineering. He works at Braskem headquarters in São Paulo.

Braskem Timeline

2002

Braskem founded.

2007

Joined the UN Global Compact.

2007

Developed technology to produce green ethylene from sugarcane.

2010

Green polyethylene plant begins operation in Triunfo.

2011

Braskem committed to the UN Global Compact Caring for Climate Initiative

2013

Braskem announces its Ten Macro-Objectives for Sustainable Development.

2014

Braskem committed to Carbon pricing initiatives from the UN Global Compact and from World Bank

industry packaging, automotive parts and construction materials.

The company has more than 8,000 employees working at its plants, technology centers and offices throughout Brazil and Latin America, as well as in the U.S., Germany, The Netherlands and Singapore.

Braskem's Sustainability Journey

Sustainability has been a central tenet of Braskem's mission since the company's founding, Soto said.

When the company was established in 2002, shareholders publicly announced their intention to be a company committed to sustainable development.

Why? According to Soto, the reputation of the chemical industry had been tarnished by some producers' harmful products and processes. "The shareholders wanted to say to the public, this company will be different."

Braskem also recognized that there are great business opportunities for a chemical company that positions itself in the sustainable development space, Soto said.

Green Ethylene Plant in Triunfo

Braskem began producing environmentally friendly products in 2007 when the company developed the technology to produce plastic resins from sugarcane. In 2010, the company began production of green plastic at its green ethylene plant in Triunfo, in the south of Brazil. Green ethylene is produced from sugarcane ethanol and is then polymerized into polyethylene, resulting in "green plastic."

Braskem's Green Polyethylene offers several sustainability advantages. It is renewable offering an alternative to petrochemicals, which are in finite supply. It is recyclable, which allows it to have a positive carbon balance. In other words, it captures CO₂ from the atmosphere.

There are other biopolymers that can be partially renewable, or biodegradable.

Braskem's Triunfo plant is the world's largest plant producing ethylene from 100% renewable raw materials. It has the capacity to produce 200,000 metric tons of green plastic per year.

2012 – a Pivotal Year

Two events in Rio de Janeiro, one a decade before Braskem's founding and the other a decade after, pla-



Braskem Ethanol-to-Ethylene Plant, Brazil

yed an important role in Braskem's sustainable development journey.

In 1992, the UN convened the Conference on Environment and Development, popularly called the Earth Summit, in Rio de Janeiro. The 12-day event focused the attention of 172 participating governments on climate change and biodiversity. The conference was monumental in size and scope.

In 2012, 20 years after the Earth Summit and ten years after Braskem's founding, the UN organized "Rio+20," the UN Conference on Sustainable Development that was also held in Rio de Janeiro.

Many of Braskem's predecessor companies had been involved in the 1992 conference, and Braskem was energized by the 2012 conference. The next year, Braskem announced its Ten Macro-Objectives of Sustainable Development.

The ten objectives have goals with 2020 target dates related to production of biopolymers, recycling of plastics, lowering greenhouse gas emissions, energy efficiency, water efficiency and occupational safety ("safe chemistry").

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In addition to the ambitious range and nature of Braskem's objectives, one notices a common thread running through the Braskem manifesto. Each goal statement has wording such as "to be recognized as a leader" or "to be recognized as a reference" or "to be among the best large chemical companies in the world" in terms of each objective.

Braskem intends to be a world leader, not only in producing thermoplastics and other chemical products but in setting the pace and example for sustainable development within the chemical industry. Braskem has declared its intention to be an example and reference point among peers and to have a similar impact in the local communities where it operates and among the clients with which it works.

JORGE SOTO: “Sustainability can make good business sense. If you innovate to bring new products with positive contributions for sustainability considering its three dimensions (economic, social and environmental), you will succeed.”

Braskem’s Motives for Sustainable Development

Today, Braskem is working toward the full integration of sustainable development into the business strategy. “If a chemical company doesn’t pay attention to sustainability, it will fail,” Soto said. “If you don’t manage the risk of the products, and the risk of the process, and the risk of the relationship with the stakeholders, you will fail.”

“There is a huge opportunity to do business in a different way that certainly will bring a good position for those companies that move first in the near future,” Soto said. “That future is not here yet, but it is arriving. The first movers will be in the best position.”

Sustainability is now a consideration in every decision and every investment the company makes, he said.

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The goal for now needs to be on encouraging peer companies to advance in integrating sustainability into their own businesses.

Working while the Market Catches Up

Braskem is disappointed that the market so far has not responded as enthusiastically to green plastic as the company expected. Braskem operates 36 plants, but only one is dedicated to producing biopolymers.

Like some other major corporations that are pursuing sustainability in earnest, Braskem would like to see more policies and regulations that incentivize companies to integrate sustainability. Carbon pricing is one solution Soto mentioned. That would level the playing field, making it easier for companies that are focusing on sustainability to compete.

But as he discusses Braskem’s future, there is no apparent frustration or concern in Soto’s voice. The world is unquestionably moving in the direction of sustainability. Soto feels confident that Braskem well-positioned to thrive in this future. It is working while the market catches up.