INNOVATIVE SOLUTIONS FOR SUSTAINABLE RECYCLING

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Director - Market Development and Technical Support
Petrochemicals
SABIC AT-A-GLANCE

1976
Company established

34,000
Employees around the world

50
Countries of operations

3rd
Largest global chemical company*

120th
Largest public company in the world*

3.7
US$ bn
Estimated Brand Value**

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3rd
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Largest public company in the world*

3.7
US$ bn
Estimated Brand Value**

86
US$ bn
Total assets

4.9
US$ bn
Net income

39.9
US$ bn
Annual revenue

≈ 150
New products each year

11,534
Global patent filings

64
World-class plants worldwide

*Forbes 2018  **Brand Finance, 2018
LINKING UN SDG’S TO SABIC’S TOP SUSTAINABILITY PRIORITIES

**Renewable Energy**
Renewable sourced electricity production (solar PV, wind mills)

**Portfolio Assessment & Design**
SABIC’s lightweight solutions for automotive and mass transportation reduce fuel consumption and associated CO\textsubscript{2} emissions

**Carbon Efficiency**
SABIC has set itself ambitious goals to reduce GHGs, energy consumption and water usage by 25% and material loss by 50% by 2025, from 2010 levels

**Circular Economy**
SABIC is the first to implement a project for the chemical recycling of challenging mixed plastic waste back to polymer

**Sustainable Growth**
Clariant’s 25% acquisition will support growth of SABIC’s portfolio of innovative sustainability solutions
SABIC’S CIRCULAR AMBITION IS DRIVEN BY THE UNMET NEEDS OF THE INDUSTRY AND FUELED BY OUR VISION TO CREATE CHEMISTRY THAT MATTERS TOGETHER

**Legislative initiatives in all regions**

- Legislative initiatives in all regions
- Voluntary commitments from brand owners, industry associations, value chains

The industry is looking for NEW and INNOVATIVE raw materials for plastics applications

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<thead>
<tr>
<th>PLASTICS for Packaging?</th>
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<td>Are plastics the preferred choice?</td>
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<th>DESIGN for Recyclability</th>
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<td>Designs that advance mechanical recycling</td>
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<th>MECHANICAL Recycled Polymer</th>
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<td>Resins from MECHANICAL recycling</td>
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<th>Certified CIRCULAR Polymer</th>
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<td>High purity resins from CHEMICAL recycling</td>
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<th>Certified BIO-RENEWABLE Polymer</th>
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<tr>
<td>Resins from animal free BIO-FEEDSTOCK cracker feed</td>
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THE SABIC AMBITION IS TO DEVELOP THESE CIRCULAR SOLUTIONS BY WORKING SIDE BY SIDE WITH BRAND OWNERS AND OUR DIRECT CUSTOMERS

Circular Economy

Portfolio Assessment & Design
SABIC PIONEERS IN CIRCULAR POLYMERS THROUGH CHEMICAL RECYCLING

SABIC IS THE FIRST IN THE INDUSTRY THAT IS COMMITTED TO SCALE UP CHEMICAL UPCYCLING OF MIXED PLASTIC WASTE TO THE ORIGINAL POLYMER.

PRESS RELEASE

DAVOS, SWITZERLAND, January 24, 2019

SABIC AND CUSTOMERS LAUNCH CERTIFIED CIRCULAR POLYMERS FROM MIXED PLASTIC WASTE

- SABIC and customers Unilever, Vinventions and Walki Group will introduce ISCC certified circular polymers in 2019 during a market foundation stage.
- SABIC’s certified circular polymers will be produced in The Netherlands from a recycled plastic waste feedstock developed by PLASTIC ENERGY and offer a drop-in alternative for customers looking at meeting the needs of various challenging applications.
- The initiative to upcycle mixed plastic waste back to the original polymer supports SABIC’s and its feedstock supplier and customers commitment to providing innovative solutions for a circular economy.

WHY IS IT THIS GOOD?

VALUE OFFER FOR SABIC’S CERTIFIED BIO-BASED RENEWABLES & SABIC’S CERTIFIED CIRCULAR POLYMERS

- Replacing fossil based feedstock
- No compromise on product packaging safety
- Identical product specifications to SABIC’s current PO portfolio
- No modifications to production processes down-stream,
- Feedstock source has a lower carbon footprint compared to fossil alternative
- Recyclable
- 2nd generation renewable feedstock, not in competition with the food chain (only applicable for cert. bio-based renewables)
WHY MASS BALANCE APPROACH?

- A CRUCIAL BRIDGE between today’s linear economy and the sustainable circular plastics economy of the future.
- An innovative & CRUCIAL INSTRUMENT to stimulate the FULL TRANSITION to new feedstock (~ pyrolysis oil)
- The RELATIVELY SMALL VOLUMES of new feedstock have to be MIXED with conventional fossil-based feedstock in SABIC’s current world-scale production units
- HIGH COMPLEXITY to run cracker and downstream outlets
- The mass balance & certification concept allows the total value chain to make together concrete steps in using new feedstock IN COMMERCIAL APPLICATIONS
THANK YOU
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