

CHEMISTRY THAT MATTERS™



TOWARDS MORE SUSTAINABLE PERSONAL CARE AND COSMETICS PACKAGING

Seda Cantekin and Brenda Santegoeds
Guest speaker Allan Hafkin Estée Lauder Company

SABIC WEBINAR
September 2nd 2021

OUR PRESENTERS



BRENDA SANTEGOEDS
SENIOR INTERNATIONAL
ACCOUNT MANAGER, SABIC



SEDA CANTEKIN, PhD
MARKET DEVELOPMENT
SUSTAINABLE SOLUTIONS, SABIC



ALLAN HAFKIN
VP GLOBAL PACKAGE DEVELOPMENT
ESTÉE LAUDER COMPANIES

AGENDA

TOWARDS MORE SUSTAINABLE PERSONAL CARE AND COSMETICS PACKAGING



- Introduction
- TRUCIRCLE™ solutions
- Optimizing & maximizing recycled content by mechanical recycling
- Design for recyclability and reusability
- Interview with Allan Hafkin, VP Global Package Development at Estée Lauder Companies
- Conclusion
- Q & A

TOWARDS MORE SUSTAINABLE PERSONAL CARE AND COSMETICS PACKAGING

WHO WE ARE

SABIC AT A GLANCE



1976
Company established



32,000
Employees around the world



3rd
Largest global chemical company*



212th
Largest public company in the world*



2nd
Chemical Brand Value**

4.017
US\$ bn
Estimated Brand Value**

79

US\$ bn
Total assets

17.8

US\$ mn
Net income

31

US\$ bn
Annual revenue



≈ 150
New products each year



9,946
Global patent filings



68
World-class plants worldwide

FIRST LUXURY COSMETIC PACKAGING MADE OUT OF MIXED PLASTIC WASTE

SABIC, THE ESTÉE LAUDER COMPANIES AND ORIGINS ANNOUNCE COLLABORATION TO UNVEIL THE FIRST PREMIUM BRAND PACKAGING TUBE MADE WITH CERTIFIED CIRCULAR POLYOLEFINS



20/10/2020

“Exploring the uses of Post-Consumer Recycle – PCR – is an incredible resource to drive our sustainable packaging goals, and we are excited to bring a more advanced recycled PCR solution to market.” states Sushil Iyer, Vice President, Global Packaging, The Estée Lauder Companies.

LINKING UN SDG'S TO SABIC'S TOP SUSTAINABILITY PRIORITIES

Resource Efficiency

SABIC's ambitious goals are to reduce Material Loss intensity 50% and Water Intensity 25% by 2025 since 2010.



Innovation & Sust. Solutions

Sustainability is the guiding light for SABIC's product and process innovation – to support the development of effective solutions to some of the world's greatest challenges.



Climate Change & Energy

SABIC's ambitious goals are to reduce GHG and energy intensity 25% by 2025, from 2010 levels.



Circular Economy

Circular economy inspires SABIC to adapt our processes to the use of renewable and recycled feedstock, and to create durable, recyclable product design solutions for our customers.



Environment, Health, Safety

SABIC is committed to our core EHSS values, with a supportive culture and focus on continuous performance improvement.



Governance & Integrity

Integrity is a core value and helps to maintain stakeholder trust. SABIC's Code of Ethics provides guidance to meet stakeholder expectations.



LINKING UN SDG'S TO SABIC'S TOP SUSTAINABILITY PRIORITIES

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TRUCIRCLE™ trademark has been introduced as an umbrella to collectively showcase SABIC's existing and new circular solutions and initiatives

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Governance & Integrity

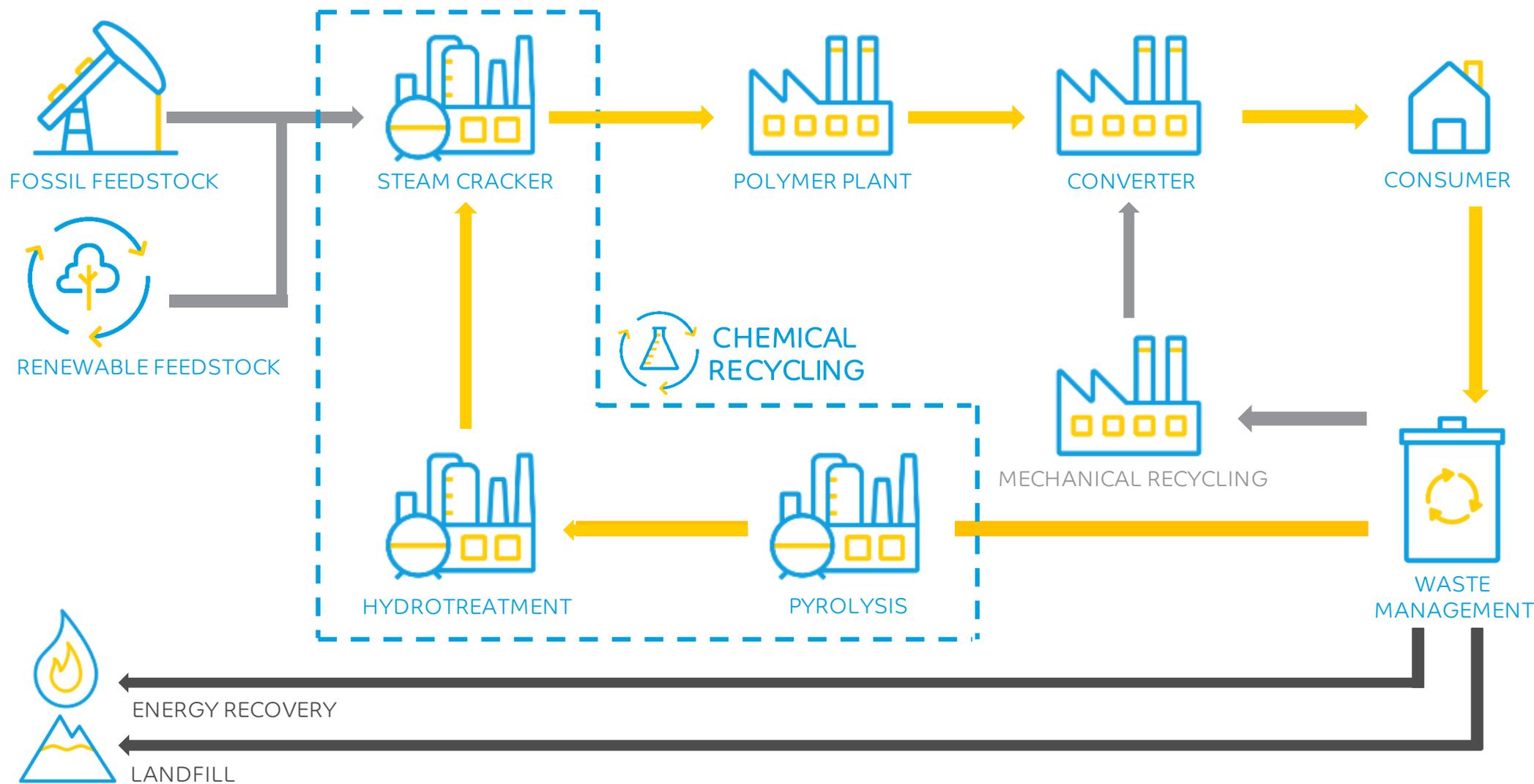
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TOWARDS MORE SUSTAINABLE PERSONAL CARE AND COSMETICS PACKAGING

TRUCIRCLE™ SOLUTIONS

FROM LINEAR TO CIRCULAR



FROM LINEAR TO CIRCULAR



FOSSIL BASED
FEEDSTOCK



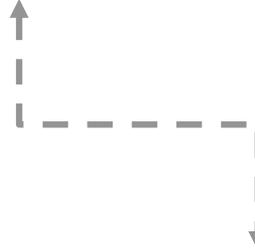
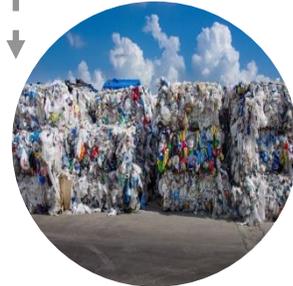
ENERGY RECOVERY

LANDFILL

FROM LINEAR TO CIRCULAR



FOSSIL BASED
FEEDSTOCK



ENERGY RECOVERY



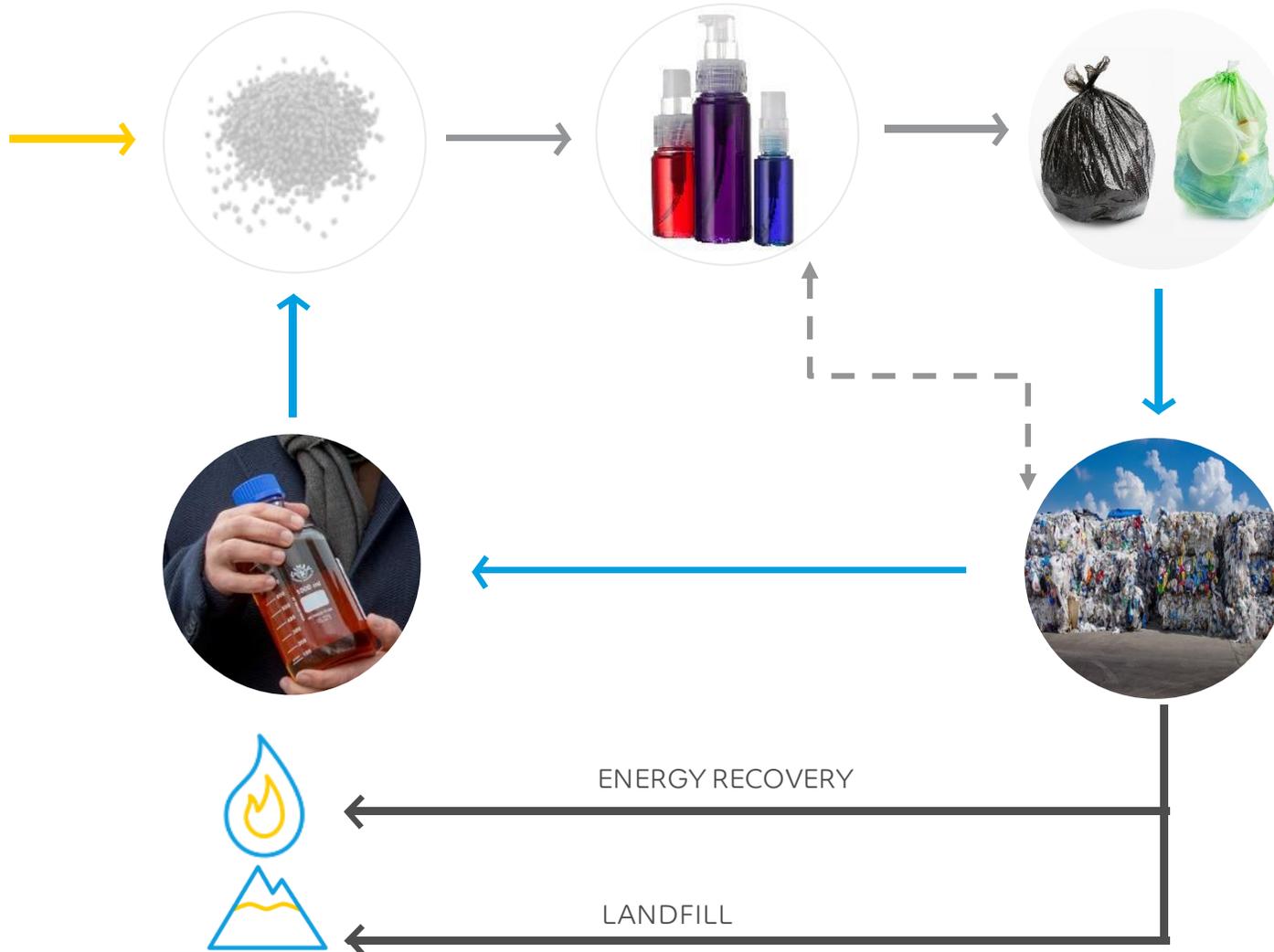
LANDFILL



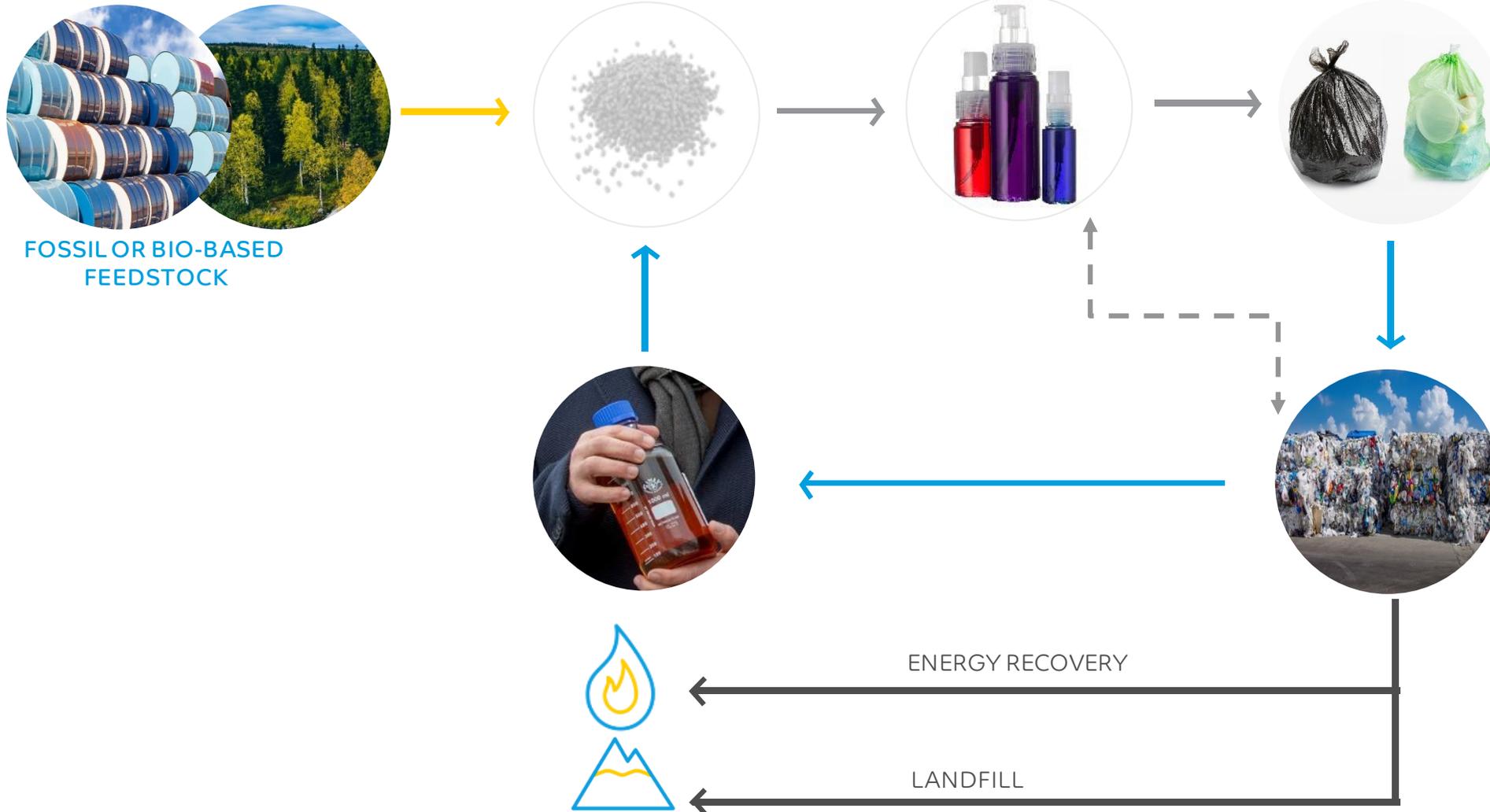
FROM LINEAR TO CIRCULAR



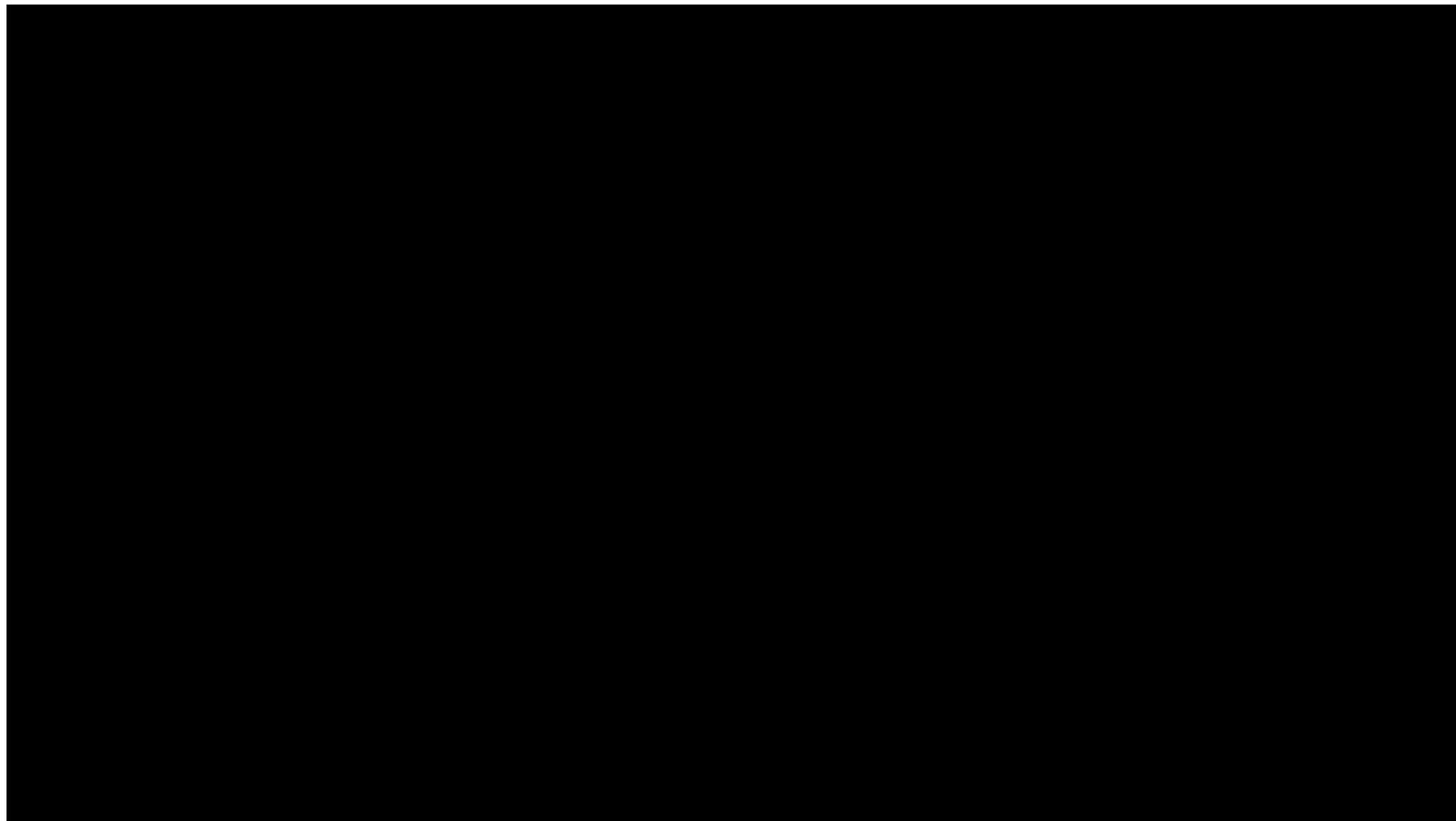
FOSSILBASED
FEEDSTOCK



FROM LINEAR TO CIRCULAR



IT IS POSSIBLE!



TRUCIRCLE™ SOLUTIONS

PORTFOLIO

MECHANICALLY RECYCLED PRODUCTS



CERTIFIED CIRCULAR PRODUCTS



CERTIFIED RENEWABLE PRODUCTS



SERVICES

DESIGN FOR RECYCLABILITY



CLOSED LOOP INITIATIVES



CLOSING THE LOOP AND CREATING A CIRCULAR ECONOMY FOR PLASTICS

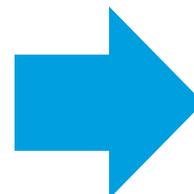
THINK OF ...

YOUR PRODUCTS
MADE OUT OF
USED PLASTICS ...
OR BIO-BASED

MIXED PLASTIC WASTE



RENEWABLE FEEDSTOCK



TOWARDS MORE SUSTAINABLE PERSONAL CARE AND COSMETICS PACKAGING

CERTIFIED RENEWABLES

FIRST EXAMPLE OF BIO-BASED MATERIALS IN COSMETICS PACKAGING

BEIERSDORF SELECTS SABIC CERTIFIED RENEWABLE PP FOR NEW NIVEA PACKAGING

29/04/2021



*“We are excited to implement this important change in the packaging of our NIVEA brand products and to be the first in the **skincare mass market to use polypropylene made from second-generation bio-based feedstock on a global basis**,” says Michael Becker, Head of Global Packaging Development at Beiersdorf. “Together with SABIC, we have taken a major step forward **in transforming conventional fossil-based packaging in the cosmetics and skin care segment towards fully sustainable material alternatives.**”*

BIO-BASED MATERIALS

SABIC CERTIFIED RENEWABLE POLYMERS BASED ON 2ND GENERATION FEEDSTOCK

- No competition with food chain
- Helps mitigate climate change
- Lower carbon footprint compared to fossil alternative
- A bio-based economy
- Replacing fossil based feedstock (e.g. Naphtha)



Renewable
2nd generation
feedstock



VALUE PROPOSITIONS OF CERTIFIED RENEWABLE POLYMERS

DROP-IN SOLUTION

- Time-to-market < 6 months
- Shortened qualification round
- Easy upscaling
- No compromise on safety and quality

POSITIVE BRAND EXPERIENCE

- Improved consumer satisfaction
- Brand attractiveness and loyalty
- Create positive social impact
- Attracting new or regain customers

EQUAL PACKAGING PROPERTIES

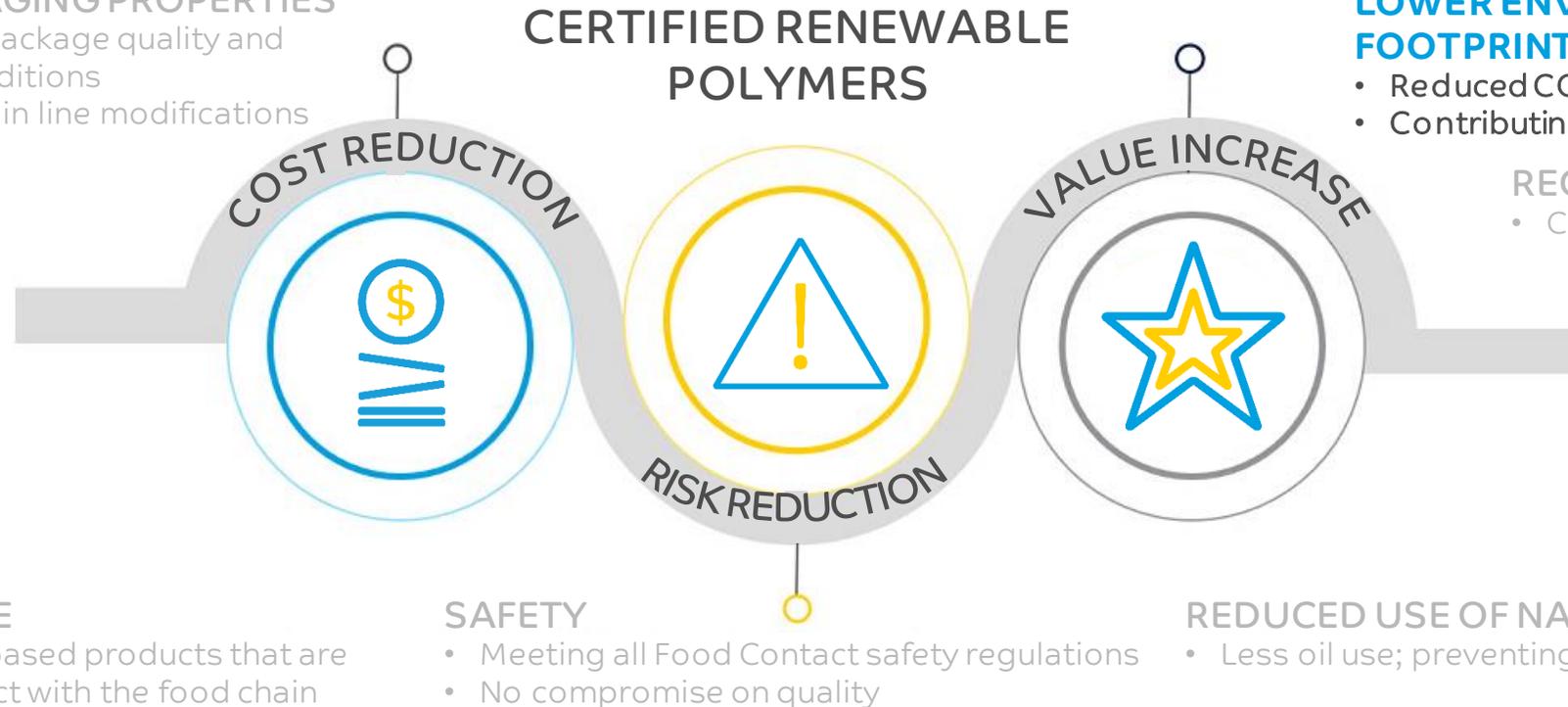
- No change in package quality and packaging conditions
- No investment in line modifications required

LOWER ENVIRONMENTAL FOOTPRINT

- Reduced CO2 impact vs alternatives
- Contributing to our planet needs

RECYCLABLE PACKAGE

- Can be recycled and used again



TOWARDS MORE SUSTAINABLE PERSONAL CARE AND COSMETICS PACKAGING

MECHANICALLY RECYCLED PRODUCTS

MAIN CHALLENGES FOR MECHANICALLY RECYCLED PRODUCTS



- Maximizing the PCR content
- Feedstock availability
- Consistent raw material quality
- Odor & color consistency
- Process-ability
- Mechanical properties & performance of end product
- Safety, regulatory



Collection



Sorting



Recycling

 Need for innovative technologies to develop sustainability solutions

MECHANICALLY RECYCLED COMPOUNDS AND BOOSTERS

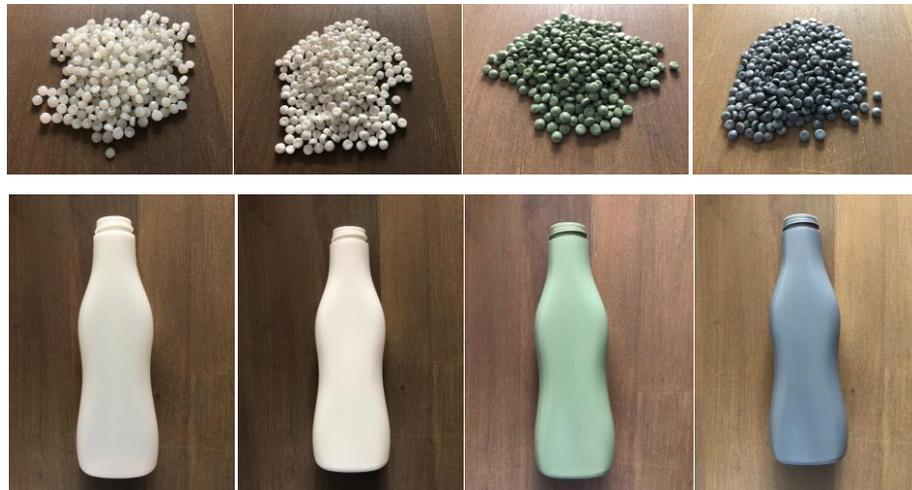
PCR COMPOUNDS

- Building and extending our portfolio of PE and PP PCR sources
- PCR content varying up to 50%
- Suitable for bottles, thin-wall packaging, caps and closures
- Different color options
- Hybrid solutions for ABS replacement with rPET option
- Samples available, possibility to scale up upon discussion

BOOSTER RESINS

Booster solutions allows blending in PCR up to 90% during the converting process, while maintaining desired process-ability, and end product performance.

HDPE PCR COMPOUNDS OFFERINGS



PP PCR COMPOUNDS OFFERINGS



ABS REPLACEMENT



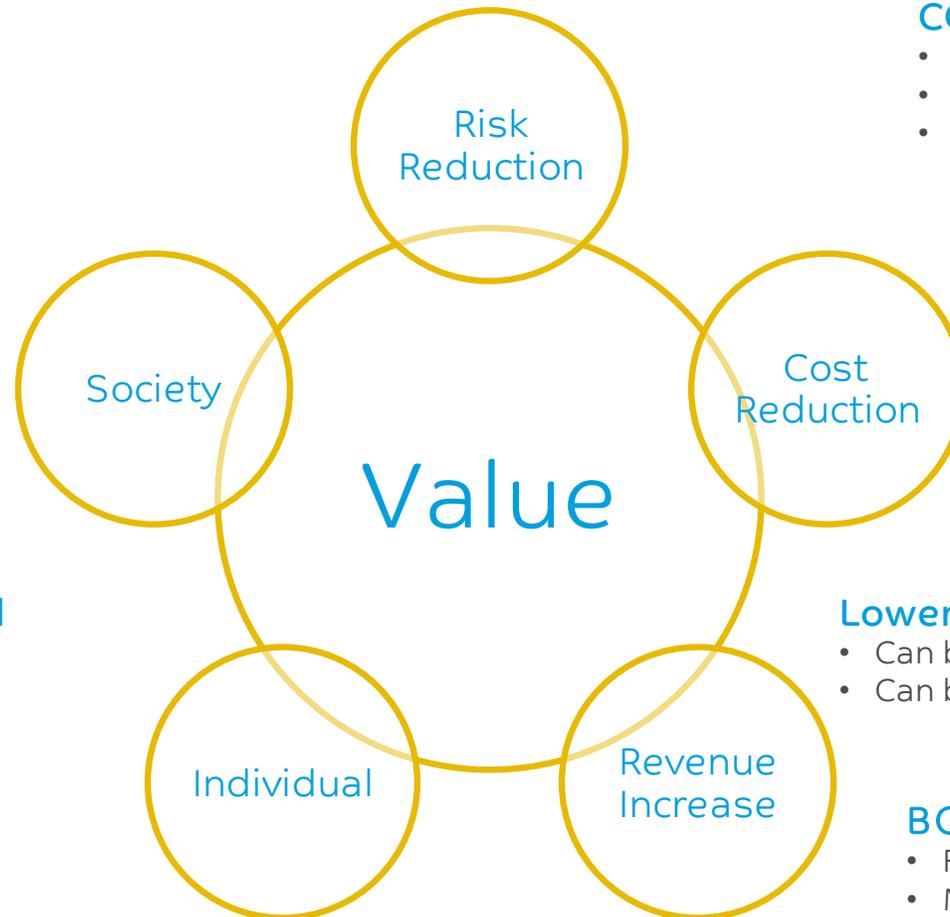
VALUE PROPOSITIONS OF MECHANICALLY RECYCLED PRODUCTS & BOOSTERS

INCLUDES MIN 30% PCR

- Exemption from the plastic tax
- Brand image, social responsibility
- Meeting sustainability targets

COMPOUNDED SOLUTION

- Eliminates one compounding step
- May help with stable process and quality
- Can minimize batch-to-batch variations



Desired mechanical and functional properties

- High ESCR and process-ability

Lowering CO2 footprint

- Can be combined with certified circular or renewables
- Can be combined with foam technology

BOOSTER

- Freedom to choose PCR type
- May work with broad quality range of PCRs
- Enables maximizing PCR content

TOWARDS MORE SUSTAINABLE PERSONAL CARE AND COSMETICS PACKAGING

DESIGN FOR RECYCLE AND RE-USE

SABIC'S SOLUTIONS FOR RECYCLABLE AND RE-USABLE PRODUCTS

- Broad PE & PP & ETP portfolio suitable for mono-material and re-use applications in
 - Tubes, bottles, jars, lids, spatulas, orifices, labels and closures



Polyethylene

M1053, CC4530
Dispensers, closures

B5823, B5822
Small bottles

F4520, 726NJ
Tubes

Polypropylene

QR674K, RA12MN40, PPA20
Containers, jars

QR681K, QR673K
Bottles

QR674K QR672K, 575P, 412MK49
Closures, orifices, lids

ETP

PK2870
Bottles

164, 144, 7062(X)
Boxes, containers, jars

SABIC® PP SOLUTION FOR AESTHETIC PARTS

Key Features of SABIC's PP PPA20 high gloss impact copolymer



SUSTAINABILITY – SOCIETAL PERCEPTION

STYRENE-FREE SOLUTION – LIGHTWEIGHT – CIRCULAR & RECYCLABLE



APPEARANCE

HIGH GLOSS, HIGH SCRATCH RESISTANCE, LOW STRESS
WHITENING



LIGHTWEIGHT

LOWER DENSITY COMPARED TO ABS AND PP COMPOUNDS –
OFFERING NEW DESIGN OPPORTUNITIES



MECHANICAL PROPERTIES

CAN OFFER BALANCED IMPACT-STIFFNESS AT ROOM
TEMPERATURE



TRUCIRCLE™ SOLUTIONS

PORTFOLIO

MECHANICALLY RECYCLED PRODUCTS



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DESIGN FOR RECYCLABILITY



CLOSED LOOP INITIATIVES



CLOSING THE LOOP AND CREATING A CIRCULAR ECONOMY FOR PLASTICS

CHEMISTRY THAT MATTERS™

سابك
sabic

COLLABORATION. IT'S MAKING THE CIRCULAR ECONOMY GO ROUND.

As we adapt to a new normal, we're helping support more sustainable economies.

That's why SABIC introduced the TRUCIRCLE™ initiative to work with our collaboration partners to rethink recycling. SABIC's collaborations are making it possible to create materials of high enough quality for food packaging by breaking complex, low quality waste plastics down to their original state. We can use, reuse and repurpose more of our resources without using new ones. It's innovative technology that's making the circular economy reality with Chemistry that Matters™.

Meet one of the world's leading chemical companies at [SABIC.com](https://www.sabic.com)



WE WANT TO HEAR FROM YOU

CONTACT US

www.sabic.com/en/contact

YOUR QUERY

* What would you like to ask about?

Which product does your enquiry relate to?

WHICH PRODUCT DOES YOUR ENQUIRY RELATE TO?

* Which product area would you like to ask about?

* Product family

* Product

Product application

* What is the nature of your enquiry?

YOUR MESSAGE

* Subject

* Message

STAY CONNECTED WITH US



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INTERVIEW WITH OUR GUEST SPEAKER

ESTÉE
LAUDER
COMPANIES



ALLAN HAFKIN
VP GLOBAL PACKAGE DEVELOPMENT
ESTÉE LAUDER COMPANIES

Q & A SESSION



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THANK YOU



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