CHEMISTRY THAT MATTERS™

# ISCC TECHNICAL STAKEHOLDER MEETING

## SABIC: CURRENT USE OF ISCC AND CHALLENGES FOR SCALING UP

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# SABIC'S COMMITMENT TO SUSTAINABILITY

# THE COMMON CHALLENGE

## EXISTING BENEFITS

LIGHTWEIGHT – STIFFNESS – IMPACT – DURABILITY – COST – SAFETY - APPEARANCE

## ISSUES TO BE SOLVED

# SABIC HAS CHOSEN 10 OUT OF UNITED NATIONS' 17 SUSTAINABLE DEVELOPMENT GOALS THAT IT CAN CONTRIBUTE TO


The Sustainable Development Goals (SDGs) are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.

# STRATEGIC SUSTAINABILITY PRIORITIES DERIVED FROM MATERIALITY

## 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.

## 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.

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

# INTRODUCTION TO TRUCIRCLE™ PORTFOLIO & SERVICES

**SABIC's TRUCIRCLE™ portfolio and services for circular solutions** has been introduced as an umbrella trademark for existing and new circular solutions to collectively showcase SABIC sustainable solutions and initiatives.

Maximize value for waste

Reduce use of fossil fuels

## DESIGN FOR RECYCLABILITY

Tailored resins for the development of products that have improved recyclability characteristics

## MECHANICALLY RECYCLED PRODUCTS

Compounds with high recycled content and booster resins for recyclate containing compounds that can improve processability and end-use properties

## CERTIFIED CIRCULAR PRODUCTS

Virgin resins and chemicals from difficult to recycle used plastics produced through feedstock recycling

## CERTIFIED RENEWABLE PRODUCTS

Resins and chemicals from bio-based feedstock that are not in competition with the human food chain and that can help mitigate effects of climate change

THE SABIC AMBITION IS TO DEVELOP THESE CIRCULAR SOLUTIONS BY WORKING SIDE BY SIDE WITH BRAND OWNERS AND OUR DIRECT CUSTOMERS

Circular Economy

Innovation & Sust. Solutions

# CASE STUDIES FOR PACKAGING

## SABIC's new TRUCIRCLE™ portfolio and services for circular solutions

### DESIGN FOR RECYCLABILITY


### MECHANICALLY RECYCLED PRODUCTS

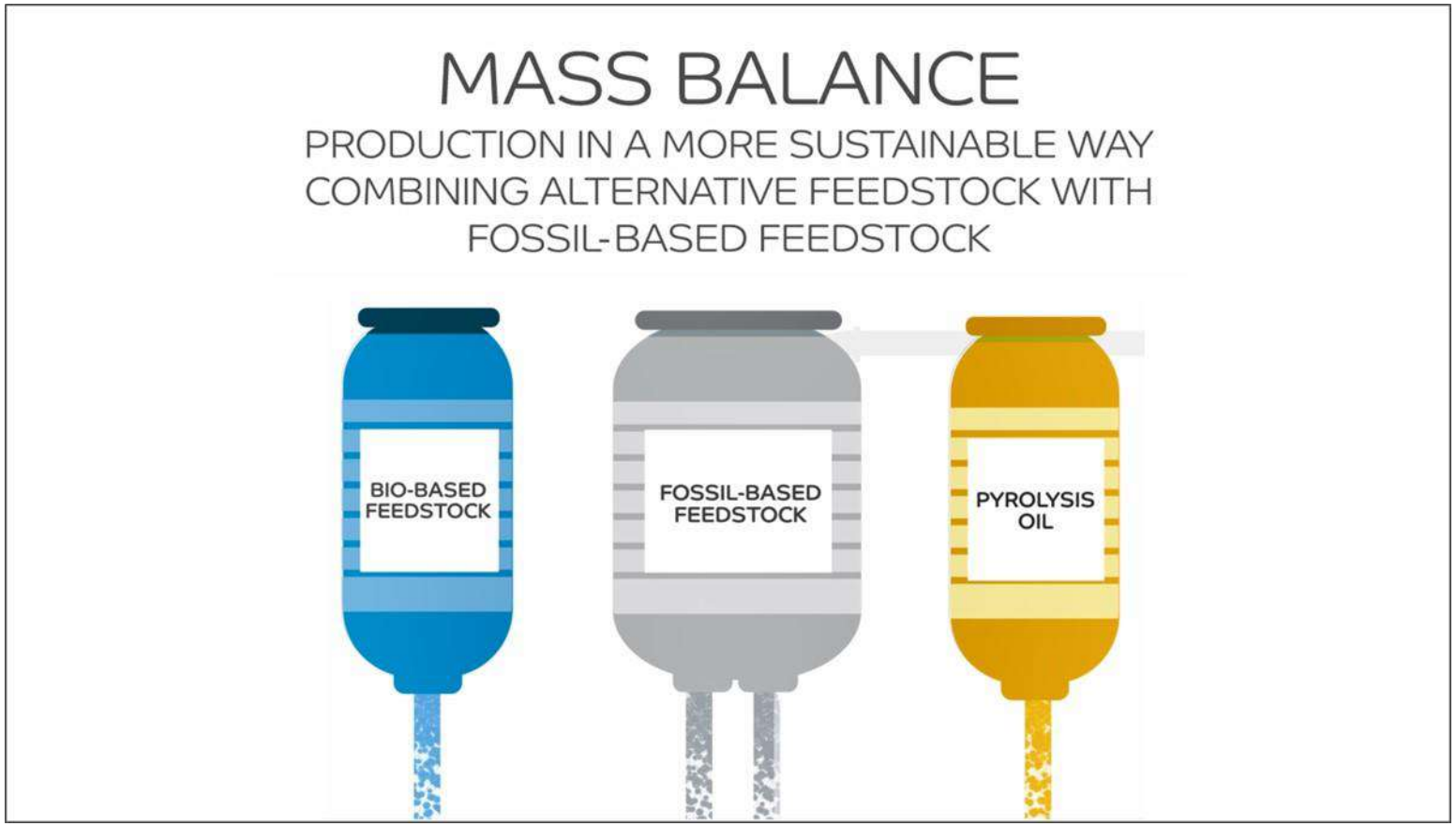
### CERTIFIED CIRCULAR PRODUCTS


### CERTIFIED RENEWABLE PRODUCTS


## CLOSING THE LOOP AND CREATING A CIRCULAR ECONOMY FOR PLASTICS

# CHALLENGES FOR SCALING UP

# ACCEPTANCE OF THE MASS BALANCE CONCEPT IS A VITAL STEP




MASS BALANCE IS A SYSTEM WHERE THERE IS A CERTIFIED BALANCE BETWEEN THE AMOUNT OF 'INPUT MATERIAL' INTO A PROCESS AND THE AMOUNT OF 'OUTPUT MATERIAL' FROM THE PROCESS

https://www.youtube.com/watch?v=-imvDD6i6Lo

# WHY MASS BALANCE APPROACH ?

Picture: Naphtha Cracker 4 (Geleen, the Netherlands)

- A CRUCIAL BRIDGE between today's linear economy and the sustainable circular plastics economy of the future
- The RELATIVELY SMALL VOLUMES of alternative feedstock have to be MIXED with conventional fossil-based feedstock
- An innovative & CRUCIAL INSTRUMENT to stimulate the FULL TRANSITION TO NEW FEEDSTOCK in SABIC's current world-scale production units
- The MASS BALANCE & CERTIFICATION CONCEPT allows us to USE EXISTING COMMERCIAL ASSETS to convert our products
- TRACEABILITY / VERIFICATION OF CORRECT MASS BALANCE HANDLING OF INFORMATION; incoming alternative feedstock and outgoing product

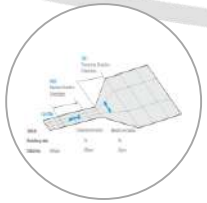
# OUR JOURNEY SO FAR, MANY FIRSTS

## 2008 first in
**BOOSTER GRADE**
SABIC® HDPE BOOSTER
to maximize PIR content

## 2014 first in
**MASS BALANCE chain of custody**
for polyolefins

## 2014 first in
**CERTIFIED RENEWABLE PE and PP**
from 2nd generation renewable feedstock


## 2019 first in
**DESIGN FOR RECYCLABILITY WITH TF-BOPE**
Mono-material solutions,
to overcome limits of
conventional PE film



## 2019 first in
**POLYCARBONATE BASED ON CERTIFIED RENEWABLE FEEDSTOCK**
from 2nd generation renewable feedstock

## 2020 first in
**SCALING UP**
CHEMICAL AND
MECHANICAL
RECYCLING
**CLOSED LOOP**

NEXT

## 2019 first in
**CERTIFIED CIRCULAR PE / PP**
from chemical recycled feedstock


## 2019 first in
**CERTIFIED RENEWABLE PROPYLENE**
Supporting launch of first sustainable acrylonitrile

Econitrile
Circular Chemicals

# TO STAY A LEADER WE NEED TO SECURE...

## CREDIBILITY

- Trust is key and can affect the entire sector
- Believe in mass balance e.g. avoid green washing, reputational risks etc.
- Consumer credibility is needed within the entire value chain incl. end-consumer

## PHYSICAL LINK

- Keep it understandable
- Guarantee full traceability
- Global credit transfer should be avoided

## SPEED

- Consistent approach and ease of doing business with every certification body
- De-complex the network of certified structures, e.g. warehouses, sales entities


THANK YOU