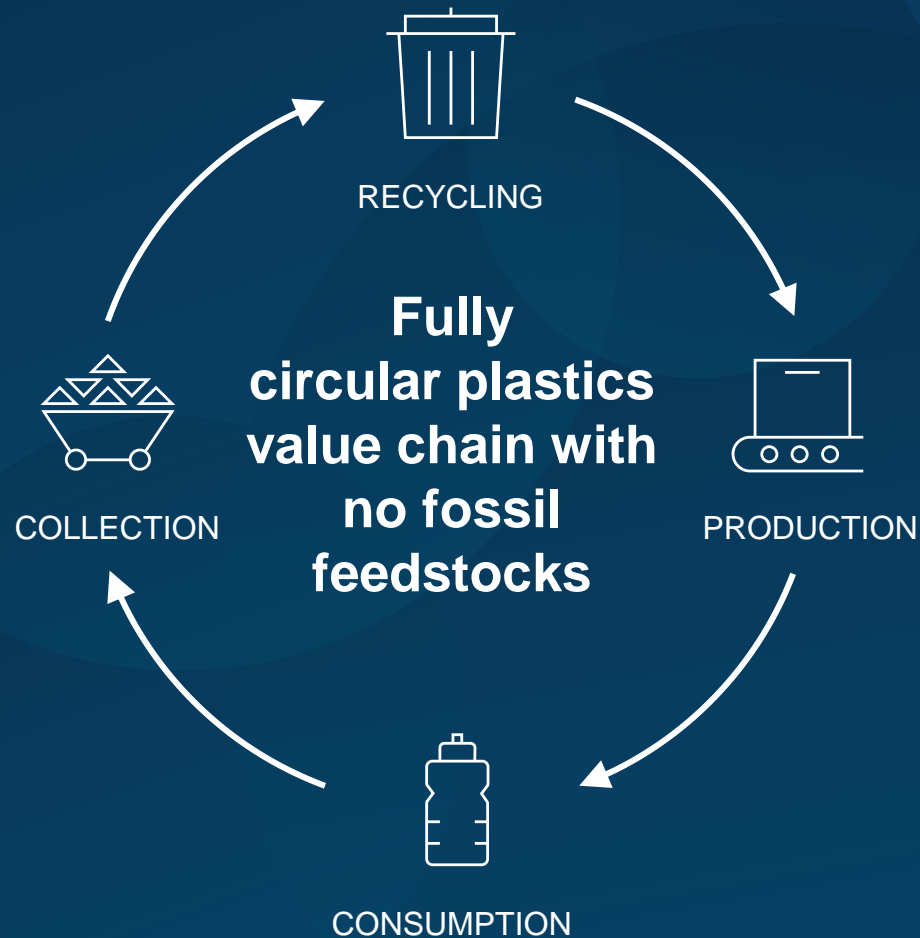




# Fresh Ideas for Revitalizing the Recycling System

ECOS Fall 2022

# OUR VISION FOR A FUTURE WITH FULL CIRCULARITY OF PLASTICS



## TO TURN THIS VISION INTO REALITY, EASTMAN FOLLOWS KEY PRINCIPLES



### Reduce, reuse, recycle

Solution should adhere and encourage the reduction, reusability and recycling of plastics packaging



### Material circularity

Plastics should be recovered using high yield material-to-material recycling



### Environmental and social impact

Lower CO<sub>2</sub> and other emissions impact compared to virgin production; technologies meet or exceed regulatory requirements to improve quality of life for employees and communities



### Complementary to mechanical recycling

Enabling integrated waste ecosystem with complementary roles of mechanical and molecular recycling



### Economic viability

Recycling option should be economically efficient to enable long-term success of the circular economy

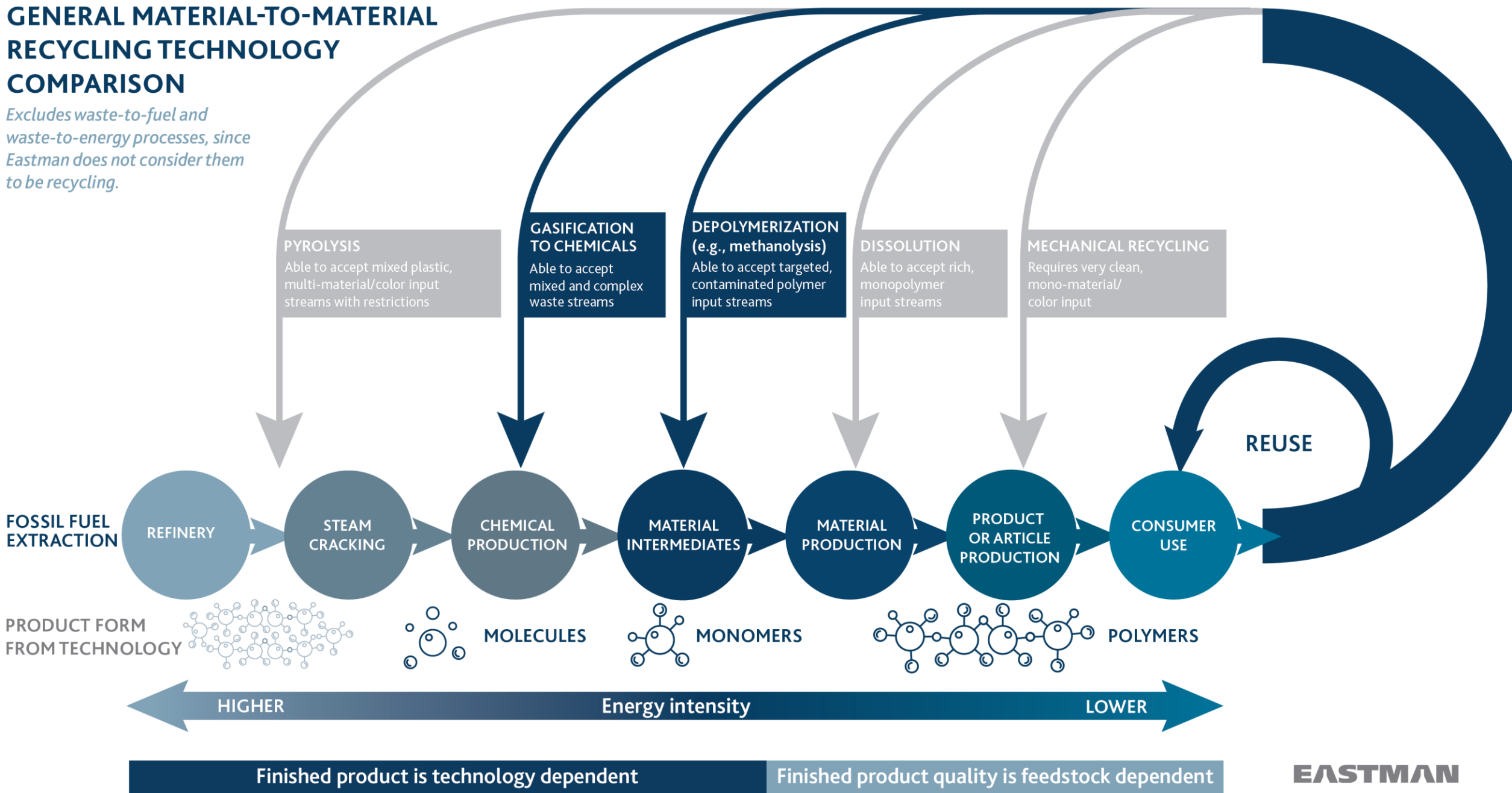


### Transparency

Claims about molecular recycling technologies are clear, transparent and accountable with third party certifications

# GENERAL MATERIAL-TO-MATERIAL RECYCLING TECHNOLOGY COMPARISON

*Excludes waste-to-fuel and waste-to-energy processes, since Eastman does not consider them to be recycling.*



# EASTMAN'S MOLECULAR RECYCLING TECHNOLOGIES

## Carbon renewal technology (CRT)



## MIXED PLASTIC WASTE



REFORMING  
(NOW)

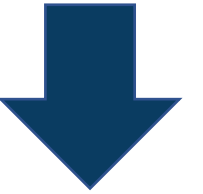
## MOLECULES



CO, H<sub>2</sub>  
(syngas)



Cellulosic Plastics, Textile  
Fibers & Acetyl Chemicals  
(20-100% recycle content)



20-50%  
LOWER  
GHG  
(syngas)

## Polyester renewal technology (PRT)



## PET PLASTIC WASTE

Not currently suited  
for mechanical  
recycling



GLYCOLYSIS  
(NOW)

METHANOLYSIS  
(2022)

## MONOMERS



recycled DMT,  
recycled EG



Copolyesters, Specialty  
Plastics, & Plasticizers  
(30-100% recycle content)



20-30%  
LOWER  
GHG  
(rDMT, rEG)