



Dow's Sustainability Journey

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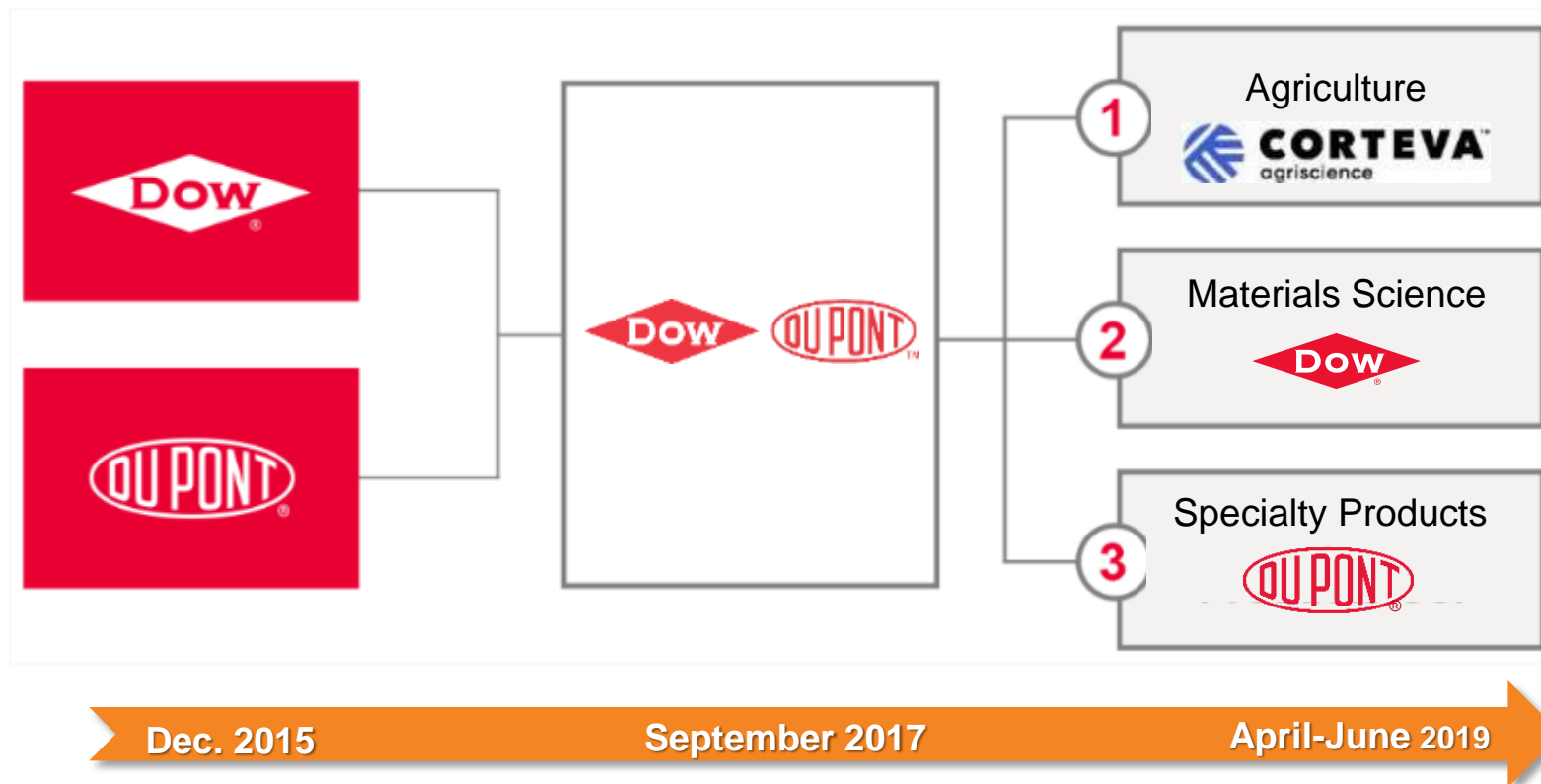
DELIVERING SOLUTIONS
UNLOCKING OPPORTUNITIES

Outline

- ❖ DowDupont and new Dow
- ❖ Market trends in sustainability/circular economy
- ❖ Dow's sustainability efforts
- ❖ Circular Economy and Dow's approach
- ❖ Concluding remarks



DowDuPont: A Merger of Equals



A merger of equals that combines industry-leading capabilities and product portfolios from two historic companies to set the stage for the creation of three stronger and more focused spin companies.



Focused on Strategic Markets

Packaging



One of the world's largest polyethylene producers for flexible food packaging

Health & Hygiene



Leveraging capabilities in elastomers, fibers, and polyolefin technology

Adhesives



Growth portfolio of innovative adhesives and binders for packaging, tapes and labels, and textiles

Elastomers



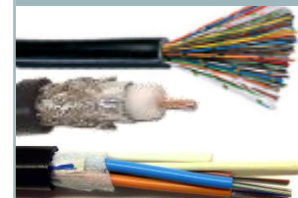
Broad portfolio of solutions for automotive and construction applications

Pipes & Durables



Durable resin technology for pressure pipe, rotomolding, and other non-packaging applications

Wire & Cable



Tailored solutions for growing power and telecom sectors

























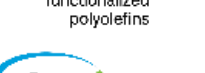











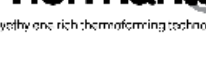

Industrial & Consumer



Versatile specialty copolymers for applications in construction, infrastructure and consumer goods



Broad Product Portfolio

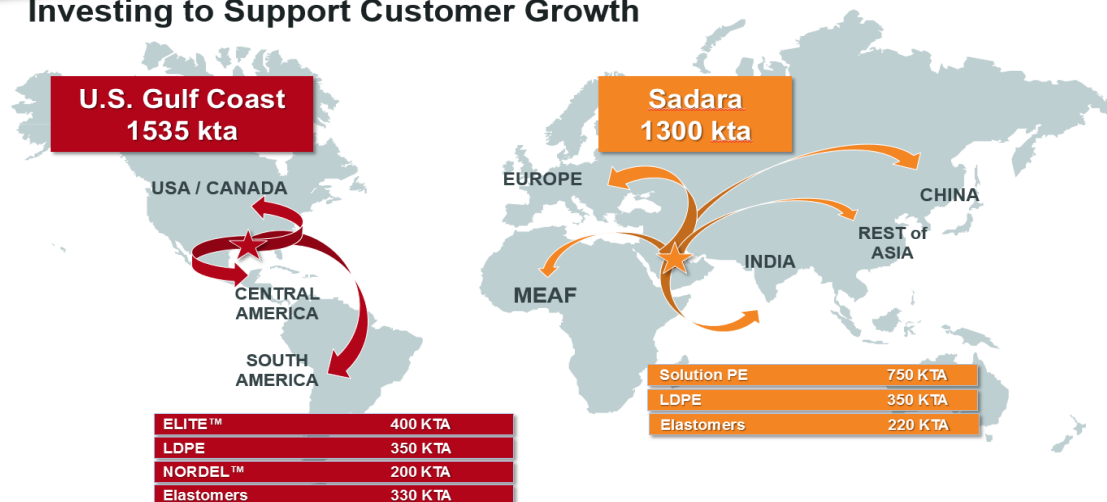
Elastomers / Plastomers	LLDPE	LDPE / HDPE	High Pressure Copolymers	Compounded Solutions	Adhesives / Coatings	Market Solutions
 polyolefin plastomers  polyolefin elastomers  olefin block copolymers  olefin block copolymers  EPDM  plastomers and elastomers	 ULDPE copolymers  polyethylene resins  advanced technology resins  precision packaging resins  linear low density polyethylene resins	 performance LDPE  fiber resins  biirrada polyethylene resins  innovative closure resins  PE-RT resins	 ultra-pure polyethylene  ethylene vinyl acetate copolymers  copolymer alloys  acid copolymers  ionomers	 peelable resins  telecom cable compounds  functionalized polyolefins  compounds for cable systems  functional polymers  moisture-curable compounds	 solvent-borne adhesives  polyolefin dispersions  solventless adhesives  optical finishes  water-borne adhesives  solventless adhesives	  packaging technology  polyethylene rich thermoforaming technology  sensory packaging technology  for store drop-off recycling



2018 was a 'A tale of two worlds....'

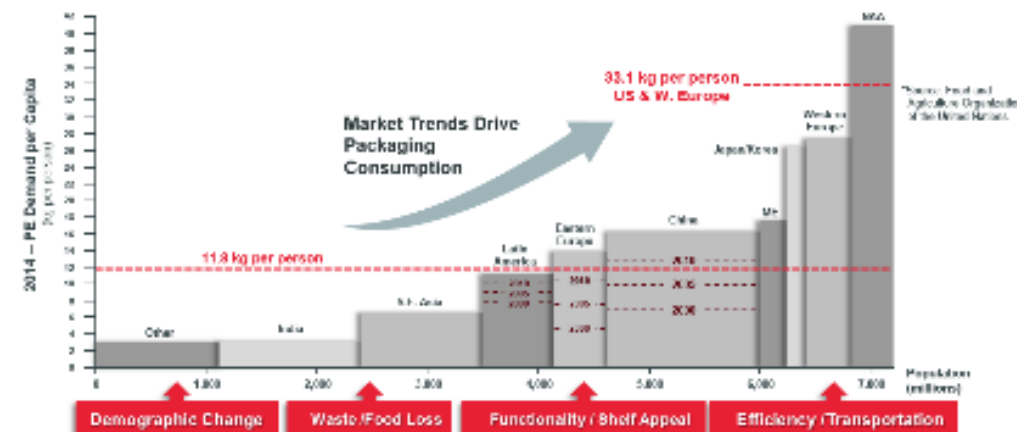


Investing to Support Customer Growth



**1/3 of all food is wasted
200,000 new mouths to feed every day**

Global Consumption on the Rise



DOW



There is a disconnect

between the recognized benefits of plastics and support for bans and restrictions on single-use plastic products

Of those 66%:

66%

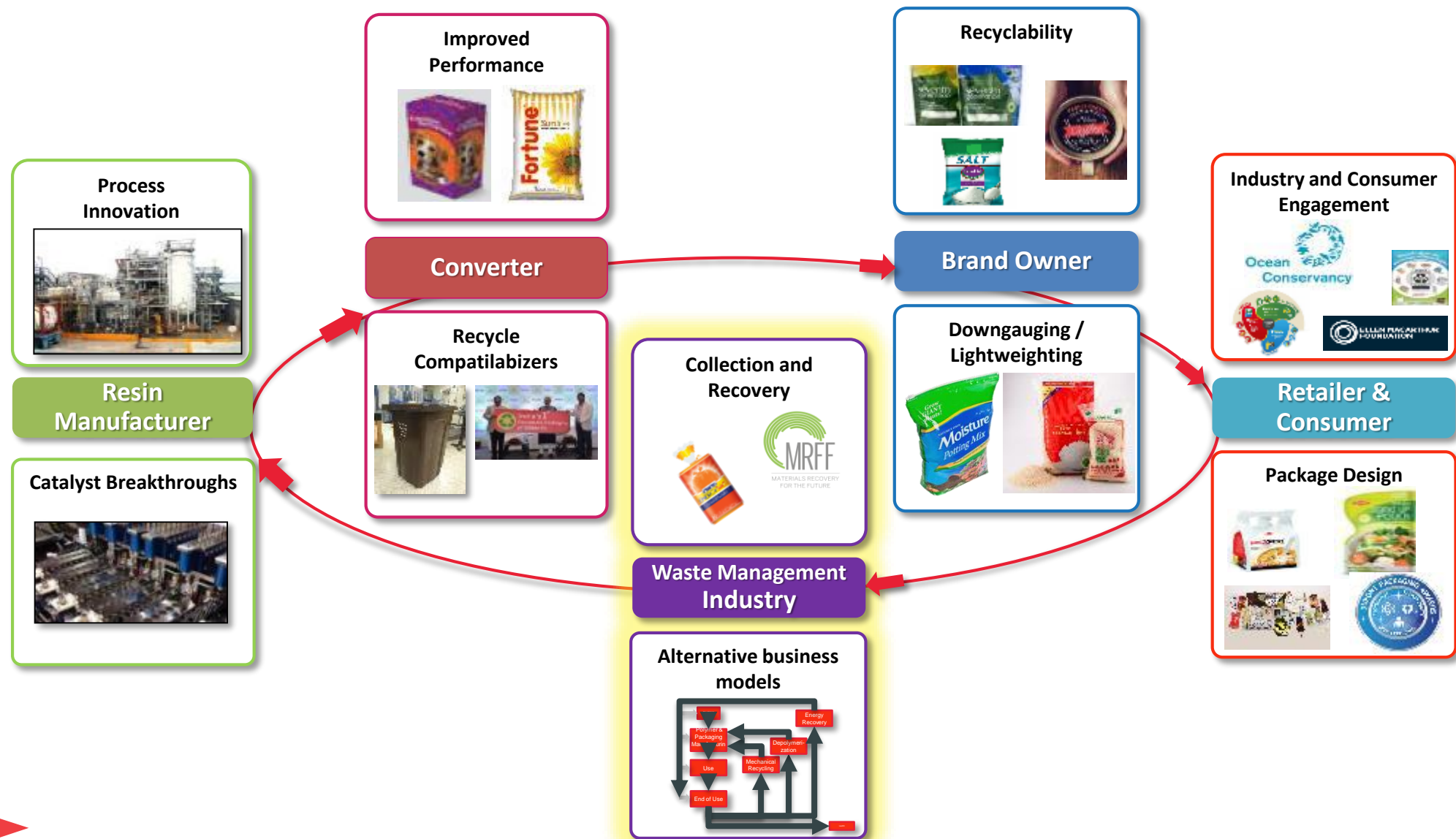
of consumers globally believe plastic is beneficial to their daily lives

76%

are concerned about the impact of plastic on the environment



The New Plastics Value Chain



Dow is inspiring hope with

innovative solutions

for smart and responsible plastics use,
reuse, repurposing and recycling



No plastics in the
environment



Drive a circular
economy



Increase impact
through
partnerships



Recycling Platform Pillars for a Sustainable Product Offering

Plastic Circularity

Innovative Products Accelerating Market Segment Strategy

Design for Recyclability
Dow is well positioned with resins, specialties and adhesives that can enable more plastic packaging to be recycled



Mechanical Recycling Prod. & App. Dev.

Develop options for improving the quality of recyclate from flexible packaging defined by:

- Economics and speed
- Enabling partnerships
- Regional Infrastructure for plastic recycling
- New markets

Chemical Recycling Solutions



Innovation & New Business Development

Explore and evaluate new technology such as bio-based materials


Building off our extensive P&SP foundation



Designing for Recyclability



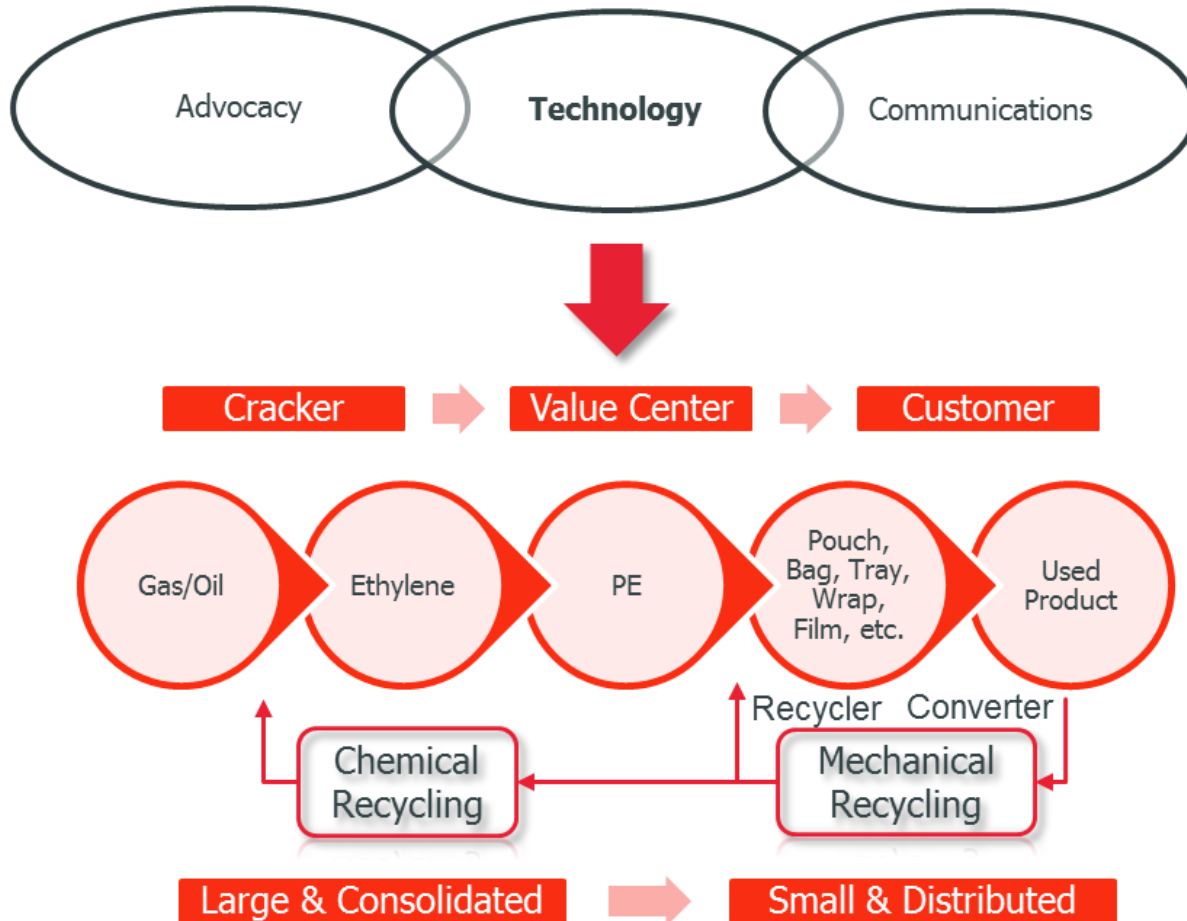
RECYCLE**READY**
TECHNOLOGY

for store drop-off recycling by 



Retain
polymer modifier by 

Circular Economy: Scope and Challenges

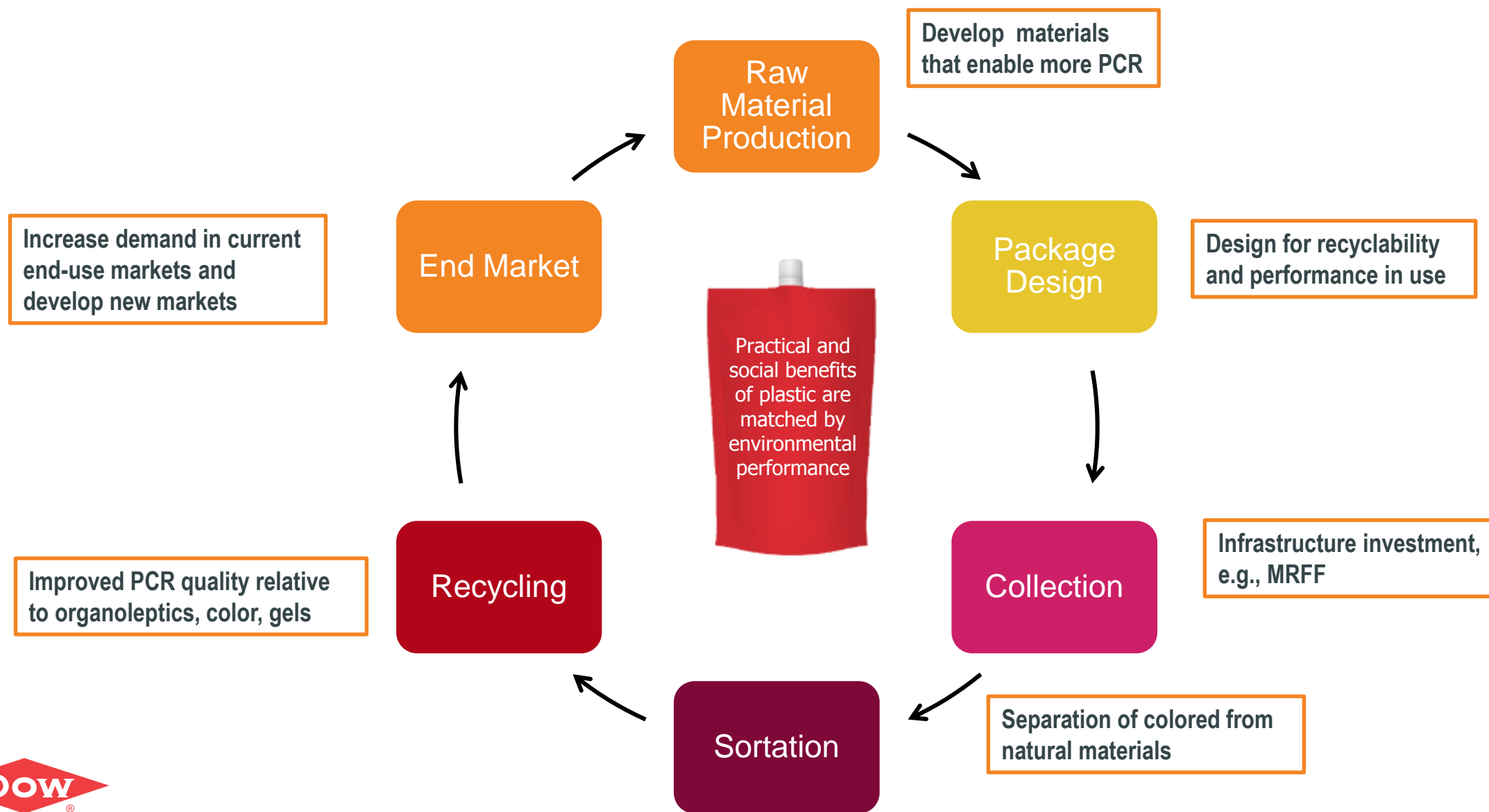


Key Challenges:

- How do we evaluate competing factors – CO₂, Waste Reduction, Cost, Energy, Scalability, Selectivity?
- Business Models & Stakeholder Engagement
- Will Consumers Value these Solutions
- What Scale is Necessary to Demonstrate Meaningful Impact - Near Term and Long Term
- Distributed vs Integrated Solutions



Mechanical Recycling



Chemical Recycling Solutions

Options for chemical recycling:

1. Plastic waste to energy
2. Plastic waste to fuel via pyrolysis
3. Plastic waste to feedstocks – pyrolysis, gasification



Partnering to Drive towards a Circular Economy for Plastics



The Association of Plastic Recyclers



ALLIANCE TO END PLASTIC WASTE

A UNIQUE PARTNERSHIP: US\$1.5B commitment to accelerate and scale cross value-chain efforts to end plastic waste in the environment

FOUR PART STRATEGY



INFRASTRUCTURE



INNOVATION



EDUCATION &
ENGAGEMENT



CLEAN UP

ALLIANCE MEMBERS AND THEIR GLOBAL PRESENCE



STRATEGIC PARTNERSHIPS



wbcsd

Asia
Plastics
Coalition

Circulate
Capital

Renew
Oceans

NatGeo

Exploring partnerships with Ellen MacArthur Foundation UN Environment, and the Consumer Goods Forum

DOW



We have an opportunity

consumers are looking for leadership

Together, we can:

- Take ownership of hope
- Emphasize our part of the solution
- Lead with initiatives, not benefits



Summary and Conclusion

- **Plastic in the environment** is a major **challenge** for today
- Packaging remains necessary to effectively **protect our food**.
- **Redesign of plastic resins and packages** is necessary to improve recyclability and value increase of waste.
- **Collaborative partnerships will continue to evolve in order to address these challenges!**



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