# MOVING TOWARD A CIRCULAR ECONOMY VIA PACKAGING SORTATION

#### PACKAGING SUSTAINABILITY HAS REACHED A TIPPING POINT

Across the packaging value chain, we see a renewed focus on collecting and recycling packaging materials to foster a circular economy (CE). To close the gaps and move the industry forward with flexible packaging aligned to a circular economy framework, roadmaps are needed to guide key players involved in the packaging supply chain.

# WHAT IS A CIRCULAR ECONOMY?

"A circular economy is based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems."

- Ellen MacArthur Foundation

## **PLAN YOUR JOURNEY**

While not all actions in the roadmap are applicable to every company, individual organizations should:

- Look for insights, direction, and priorities for their own individual organization
- Identify collaborative relationships to help achieve their goals
- Identify how to work with the FPA to influence future industry opportunities
- Identify technology and investment opportunities
- Understand how their organization plays a critical role in the system of driving flexible packaging to a circular economy
- Customize the roadmaps for their organization to set strategic goals for 2025 and 2030







#### ROADMAP TO YOUR DESTINATION

Drive toward key circular economy outcomes using the below roadmap and timelines. Leading companies may move faster than the projected outcomes and activities. Companies that lag behind the timeline should consider the progress that competitors are making as outlined in the below scenario.

4% flexible packaging recycling rate

Almost no sortation of flexible packaging at MRFs; MRFF test proves FPP can be sorted at MRFs

Lack of funding for sortation infrastructure

Inconsistent recycling rules across

10% flexible packaging recycling

5% of MREs with capabilities to sort FPP: initial investment at MRF in new technology including optical sorters, Al, robotics

Voluntary industry-led PRO for infrastructure investment emerges

Harmonized recycling rules for collected materials emerge; large consumer education push for reduced contamination

30% flexible packaging recycling rate

Major investment in MRF technology through optical sorters, AI, robotics; 20% of MRFs with capabilities to sort

Policy drives national funding mechanism for recovery infrastructure investment; national industry PRO system in place to manage national sortation system

Harmonized recycling rules for collected materials across the U.S.; contamination reduced dramatically

All flexible packaging effectively recycled

>50% of MRFs with capabilities to sort FPP through continued investment in sortation technologies to drive efficiency and cost structure

New technologies commercial improving efficiency and cost structure

2020

2025

2030

2040

Consumer education push on store drop-off acceptance

MRFF project proves that FPP can be sorted at MRFs through optical sorters

Drive/support legislation that promotes recovery infrastructure investment

Identify best practices for harmonization of flexible packaging for sortation (recyclable and compostable)

Collaborate with others on MRFs infrastructure investments and benefits

Identify and test leading digital/ chemical marker technologies

Reduced contamination through consumer education and technology

Industry-led PRO emerges to identify and lead sortation investment opportunities

Exploration and implementation of optical sorters at some MRFs that can be used for flexible packaging sortation

Industry-led PRO drives the consistent collection of accepted materials across the U.S. to drive sortation

PP films providing growing volume for enhanced end market options

Test and implement upgrades for digital/chemical watermark identification and sortation benefits Home technology (apps, assistants, etc.) help consumers better sort and find the best outlets

Industry-led PRO continues funding for new sortation technologies

Major investment in national sortation infrastructure (AI, optical sorters, robotics) to improve the quality and volume of flexible packaging sorted

Design simplification leads to greater flexible packaging acceptance and sortation

Focus on the sortation of PE and PP based films

Digital watermarks/chemical markers common in printed/unprinted materials to drive sortation

Demand for clean materials leads to the majority of MRFs installing equipment for flexible packaging sortation

Industry-led PRO continues funding for new and emerging sortation technologies

Technology investment results in clean sortation of all collected flexible packaging

### **GLOSSARY**

MRFF Materials Recovery for the Future MRF Materials Recovery Facility Flexible Plastic Packaging PRO Producer Responsibility Organization Polypropylene Polvethylene

