



UNWRAPPING AMBITIOUS PACKAGING COMMITMENTS IN THE U.S.

*Insights from a “Cross-Sector” Salon Conversation Sponsored by
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INTRODUCTION

This report summarizes insights from “Unwrapping Ambitious Packaging Commitments in the U.S.,” an event held in Boston, Massachusetts, on Sept. 28, 2018. The discussion included more than 20 thought leaders representing a variety of material substrates and spanning the scope of the U.S. packaging value chain, including government officials and packaging technology innovators. The conversation featured presentations followed by roundtable discussions.

OVERVIEW

As the vision of a circular economy grows, there is heightened focus on the manner in which packaging is formulated, reused, recycled and composted. Consumer interest is escalating, companies are setting measurable goals for packaging content and disposal, governments are advancing policies and interest groups are encouraging bold change. Increasingly, leading brands, retailers and packaging companies are publicly committing to working toward the use of 100% reusable, recyclable, or compostable plastic packaging by 2025.

At the same time that brands are seeking to advance circular goals for packaging reuse, recycling, or composting, the recycling industry is facing significant headwinds with China restricting the import of certain recyclable materials. The resulting lack of markets for recycled goods is driving a re-examination of the state of recycling and recovery across the globe, and more immediately, here in the U.S.

Composting, another tool for a circular packaging system, lacks sufficient infrastructure, and due to the complexity of reuse, opportunities for reusable packaging are limited. Despite these headwinds, there is opportunity. This event was designed to explore what it would take to create a made-in-the-U.S. strategy to help brands, retailers and others seeking to achieve circular packaging goals.

INSIGHTS

UNDERSTANDING PACKAGING’S ROLE IN A CIRCULAR ECONOMY

Packaging’s primary purpose is to protect other products. Packaging is not waste, rather, it is crucial to decreasing waste. It protects products from damage, spoilage and loss. When packaging is viewed in this light, it becomes relevant to consider any accompanying policies and programs related to its management with a consideration of the value

“To achieve packaging that has been 100% designed for recovery, industry needs:

- Advancements on packaging design (i.e. innovations that tweak currently unrecyclable packaging designs to fit into today’s recovery systems),*
- Capitalization on existing design for recovery guidance that is currently not used to its fullest extent,*
- Major support and investment in both established recovery systems (commercial composters come to mind) and,*
- Emerging recovery systems (MRF robotics, novel chemical conversion reprocessing technologies etc.)”*

-Participant Comment

packaging can play in preventing greater waste. Too frequently, policies and programs focus on only end-of-life management and not on opportunities and value further up the packaging value chain. A lifecycle approach is necessary to examine how packaging materials are designed, collected, sorted, reprocessed and sold. Potential lifecycle-based packaging policies and programs should cover access; contamination; funding for infrastructure; research and development; and pull-through of recycled content to ensure that there are sufficient markets for what is being collected.

DISCUSSION TOPICS

To help explore opportunities, risk, and unintended consequences, four distinct challenges were posed to participants to explore circular packaging goals within the context of the packaging value chain. Insights from those discussions are captured here.

CONSUMER BEHAVIOR

End-of-life disposal is highly dependent upon engaging the end user. Event participants identified key challenges and programs, policies and other initiatives for influencing consumer behavior to achieve 100% recycling, reuse, and composting of packaging.

Contamination

Contamination, which has increased since the introduction of single-stream recycling, is a significant concern and one key reason for China's decision to reject recycled materials. The addition of new and more complex packaging formats and an emphasis on recycling have led to notable consumer confusion and misuse of curbside programs. Contamination increases system costs and environmental impacts.

Labeling

Labeling plays a key role in reducing contamination and guiding consumers. Currently, consumers are confused about the role of resin codes (which do not indicate recyclability). An opportunity exists to explore the potential of legislation to help reduce confusion between resin codes and encourage use of the How2Recycle label.

“Consumers wanting to recycle everything are doing so—regardless of recyclability. This ‘wishful recycling’ is further undermining the financial viability of recycling. The How2Recycle label, which could be a strong tool in educating consumers, needs support to accurately and efficiently provide this education.”

-Participant Comment

Access to Recycling

Only 53% of U.S. consumers have universal¹ access to recycling²; a lack of infrastructure in rural and multi-family homes is a challenge, as is bin size and locally-based recycling practices. To increase recycling, we need to examine the best ways to increase access to recycling. A focus on expanded recycling access in multi-family and away-from-home settings needs to be considered. With expanded access comes the potential for greater risk of contamination, so consumer education will be required.

1 Universal access implies curbside and automatic opt-in collection system. Taxpayers do not have to subscribe to a service or drive to a depot to recycle their materials.

2 SPC (2015) 2015-2016 Centralized Study on Availability of Recycling.

3 Waste Management Media Room “Recycle More? Or...Recycle Better?” April 11, 2016

4 ReTrac is a reporting software supported by the US EPA to help standardize and simplify state waste and recycling performance.

Feedback

Greater exchange of information is needed between the hauling community, municipalities, and residents about contamination. Exploring options to improve the situation, without having to enforce contract stipulations, can help resolve this challenge for haulers and municipalities.

Messaging

Investment in education is required to help consumers understand the tradeoffs and value of all recovery methods beyond recycling.

DEFINING AND MEASURING SUCCESS

There are 18 different definitions of recycling across the U.S. and even more globally. Understanding of what is meant by “recycling,” “composting,” and “reuse” varies, yet definitions drive how goals are set and results are measured. It is important to consider whether today’s metrics are tracking the right things to accurately measure success. Event participants discussed a number of challenges and opportunities.

Metrics

There are many sources and questions about how data is tracked for measuring recycling, reuse, and composting success. There is widespread agreement that many of the numbers currently reported and acted upon may not be reliable or the most effective at capturing the state of circular packaging in the U.S. More robust data might help better inform policies and practices.

Today, metrics are based on weight-based goals, but this provides little to no insight into source reduction and material optimization. In fact, as the U.S. recycling rate decreases, data indicates that the country is actually recycling more—but lighter-weight—material. Recycling one ton of PET bottles today requires 35,000 more bottles than it did a decade prior.³ Discussion ensued exploring the value of alternative metrics such as environmental impact goals, which measure success based on greenhouse gas (GHG) emissions or energy impacts, or metrics such as a capture rate that helps track what households recycle versus dispose.

Increasing state use of the Re-TRAC⁴ system is likely to improve the consistency of reporting.

Incentives

Establishing incentives to drive everyone toward common goals will be necessary to make greater and more measurable progress. Companies are now accountable to changing consumer interests; they need more certainty to build infrastructure, mobilize efforts and connect the dots between goals and implementation.

Engagement

Material recovery facilities need to be engaged with goal aspirations. Currently, they can reject material—even if it is technically recyclable—if they don't feel they generate sufficient revenue from it. Solutions need to be created to help close this disconnect and support all parties. Building markets for recycled materials is necessary so there is an economic advantage to collecting them.

"We need a clear indication of recyclability across our various material recovery facilities (MRFs). Many materials that are labeled as recyclable cannot be handled by MRFs. In addition, when similar products (i.e. plastics bottles) can be either recyclable or compostable, this causes a lot of confusion."

-Participant Comment

INNOVATIONS AND INVESTMENT

Packaging has shifted and become more complex over time. This shift has reduced cumulative environmental impact but complicates recovery strategies. Event participants discussed the role of innovation in packaging and recovery system design.

Lifecycle Perspective

Incentives for innovation across the packaging lifecycle are needed. Currently, there is more innovation in materials, and less in reprocessing and sorting technologies. Packaging changes are more expensive to research and tend to be more competitive. A harmonized strategy for plastics would help provide the operational certainty needed for investment.

Infrastructure

More robust infrastructure is needed to expand recycling across the U.S. China's ban on the import of waste material presents an opportunity to improve U.S. domestic collection and recycling operations. To help meet this need, a collaborative industry initiative has been formulated to help secure more funding for recycling infrastructure at the federal level.

Private and public investments in new facilities and technologies are needed to drive a vision of circular packaging, but solutions need to work for all parties.

Currently, many plastic types can't be processed with existing infrastructure; support for chemical recycling technologies may offer significant value.

Collaboration

Collaboration is needed to help scale R&D, particularly for recovery needs. One exciting initiative is the [ReMade Institute](#), which focuses on lowering the cost of technologies to help reduce energy and carbon footprints. This joint industry-government initiative has generated excitement and collaboration.

Funding Opportunities

Funding possibilities include leveraging recycling credits to incentivize and drive capital where needed. This could help create a centralized feedback mechanism through which packaging companies can share innovations, receive feedback from material recovery facility operators, and obtain federal government funding based on the amount of tons of waste diverted—similar to funding for alternative fuels.

EMERGING ISSUES—ECOMMERCE AND FOOD WASTE

Multi-material and flexible packaging formats, while difficult to recycle, are proving a boon for some areas. These packaging formats assist with increased durability needs associated with the emerging ecommerce distribution chain, and are proving successful in extending shelf life and preventing food waste. As ecommerce grows and emphasis on reducing food waste increases, consideration of the value of these formats within the context of these goals needs to be evaluated. Event participants discussed the compatibility of these issues with packaging goals.

Cold Chain

Emerging innovations in cold chain technology could lead to more shelf-stable foods, resulting in further changes in packaging that may be less recoverable.

“In the food packaging arena, there is a perfect storm developing for packaging manufacturers who—on one side—are asked to design and manufacture shelf-attractive and functional packaging that protects and preserves food products (which increases the complexity of packaging) and—on the other side—required to make these packages 100% recyclable or compostable. The ‘China Sword’ has only exacerbated this ‘storm’ by making recycling markets extremely difficult for material recovery facilities (MRFs), who can only economically market ‘perfect’ material.”

-Participant Comment

Infrastructure

There may be a way to leverage existing ecommerce infrastructure to help with recovery, such as lockers and transit trucks to collect recyclable materials or depots for reusable ecommerce packaging.

Chemical Recycling

Chemical recycling is currently the most viable option for meeting the need for plastics while increasing recovery options. Encouraging refiners to integrate chemical recycling into their existing processes may be the best way to create scale. Small processing facilities will continue to face economic challenges due to transport, size, and volume.

Curbside Collection

Exploring the economics of adding a new material to curbside collection and then presenting the business case to municipalities and consumers is an option for increasing recyclability of these packaging formats. This action would require education to help rationalize curbside collection fees and increase transparency.

NEXT STEPS

As more companies and governments step up to tackle 100% recyclable, reusable, or compostable goals, it will be necessary to look across the packaging value chain to ensure that the right policies and programs are put in place to ensure success. A comprehensive strategy is needed in which all stakeholders collaborate to address existing needs and balance emerging issues. This means not only considering end-of-life management of packaging (which these goals address), but looking systemically at the packaging value chain to ensure identification of opportunities for success and elimination of challenges and unintended consequences. Common themes that emerged from the dialogue are disclosed here.

Innovate

Innovation is needed to meet ambitious goals. Collaborative public-private partnerships to reduce risks and provide opportunity for scale will be essential. Policy should be designed to better incentivize and encourage innovation across product and packaging lifecycles.

Market Pull

It is insufficient to ensure technical recyclability if we do not have sufficient demand for this recycled material. It will be essential to ensure sufficient pull-through of recycled content with adequate markets for all the material that is being collected in a cost-effective manner. This will require looking at all potential end-uses, creating policy mechanisms to incentivize use and educating consumers.

Educate

More effective education is needed to help consumers understand the value of all recovery methods, including reuse and composting, not just mechanical recycling. Consumers also need to understand the importance of reducing contamination and how they can help prevent it.

Harmonize

Better harmonization to reduce consumer and business confusion is needed to drive efficiencies and reduce costs.

Expanded Vision

Mechanical recycling is not the only solution. More dialogue is needed on how to recover all materials and the variety of uses for these materials. Bridging strategies will be essential for scaling up solutions.

Collaborate

Success will come with cross-sector, private and public education. More dialogue and more collaboration are needed across the full spectrum of activities.