

COMPOSTING CONSORTIUM

# IMPACT REPORT

AN INITIATIVE OF CLOSED LOOP PARTNERS'  
CENTER FOR THE CIRCULAR ECONOMY

# WHO WE ARE

## About Closed Loop Partners' Center for the Circular Economy

The Closed Loop Center for the Circular Economy is part of the Closed Loop Partners family of companies. Closed Loop Partners includes Closed Loop Capital Management, the Closed Loop Center for the Circular Economy and Circular Services.


The Closed Loop Center helps businesses solve their most pressing material challenges. We're built on the principle that a world without waste is not only an environmental necessity, it's a path to profitable growth.

To learn more about how we are building the circular economy, visit [closedlooppartners.com/the-center/](https://closedlooppartners.com/the-center/)

## About the Composting Consortium

The Composting Consortium is an initiative of the Closed Loop Center for the Circular Economy. Through in-market tests, deep research and industry-wide collaboration, the Composting Consortium has laid the groundwork for a more robust, resilient composting industry that can keep organics and compostable packaging in circulation.

The Consortium's Corporate, Material Innovator, Industry and Advisory Partners constitute five brands, four material manufacturers, two leading industry groups, 10 non-profits and three academic institutions, along with 19 best-in-class Composter Partners and more than two dozen Municipal Partners. These businesses and organizations have provided invaluable insights, support and collaboration over the last 4.5 years. Without them, our work would not have been possible.



**“Closed Loop Partners’ Center for the Circular Economy created a platform for collaboration that is very hard to come by. Because of their Composting Consortium, critical field research went further, faster—with sweeping benefits across the value chain.”**

Emily McGill  
Compostable Field Testing Program

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  - Built a collaborative ecosystem

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# FROM THEORY TO ACTION

## THE COMPOSTING CONSORTIUM'S APPROACH

**Since the 2021 launch of Closed Loop Partners' Center for the Circular Economy's Composting Consortium, our work has been defined by moving away from industry anecdotes and toward a data-driven roadmap for organics circularity.**

At the core of this effort is a shared goal: closing the loop on food waste and increasing the recovery of food-contact compostable packaging through strategic, data-driven research and partnerships. Half a decade later, we look back at our impact, and the progress made toward a circular economy for organics.

The first few years of the Composting Consortium were focused on testing and learning in-field—engaging with composters, consumers, municipalities and policymakers to assess the viability of compostables and identify how these materials fit into a circular economy.

As we evolved, so did our focus. Fast forward to 2026, our work has focused on activating and expanding infrastructure through strategic partnerships and grantmaking.

Moving forward, the Composting Consortium's research will continue to be widely available for the industry's use as a central knowledge hub, helping support the continued growth of organics infrastructure and programs across the country.

# Timeline of Milestones

November 2021

## Composting Consortium launches

The industry collaboration brought together leading voices across the composting value chain—from global brands to best-in-class composters running operations on the ground.

July 2023

## National consumer-research study released

2,700 U.S. consumers were surveyed to identify the most effective compostable packaging labeling designs, in partnership with the Biodegradable Products Institute (BPI).

July 2024

## Investment report published

A comprehensive analysis that provided recommendations for targeted investment into the composting industry.

September 2024

## Composter & Municipal Partner Platforms commenced

Collaborative platforms enabled composters and city-leaders to share expertise and scale composting solutions.

December 2025

## EPR Framework published

First-of-its-kind resource created to support Extended Producer Responsibility (EPR) programs that incentivize compostable packaging recovery.

October 2022

## Disintegration & contamination studies begin at 10 U.S. composting sites

An 18-month endeavor launched to quantify contamination and test how compostable packaging breaks down in real-world composting conditions. *With critical project support from Resource Recycling Systems (RRS), Compost Research & Education Foundation (CREF), the Compostable Field Testing Program (CFTP) and our composter partners.*

April 2024

## Findings released publicly

August 2024

## Municipal Blueprint released

A roadmap developed for establishing and scaling municipal organics recycling programs across the U.S.

May 2025

## Composting Consortium Grant Program announced

Composters and communities nationwide were supported in their work to recover more food waste and compostable packaging through infrastructure, education and program development, in partnership with BPI and with technical support from the US Composting Council (USCC).

March 2026

## Grant projects conclude



**KEY  
RESULTS  
FROM OUR  
COLLABORATION**

# KEY RESULT #1

## REPLACED ANECDOTES WITH THE INDUSTRY'S LARGEST DATA SET

1

### Identified Data Gaps

In 2021, Closed Loop Partners recognized a critical need for rigorous in-field, science-based data on compostable material recovery to replace industry hearsay. This led to the launch of the Composting Consortium.

2

### Proved Compostable Packaging Disintegration

In 2022, we launched the largest, singular field test of certified, food-contact compostable packaging in the U.S. The scale was immense: we tested over 23,000 compostable packaging units across six distinct composting technologies and 10 diverse composting environments.

3

### Accelerated Industry Progress

Our efforts progressed field testing significantly, advancing field-testing methods and equipping composters and brands with data to better understand the variability of disintegration across different systems.

4

### Increased Transparency

In 2023, we donated our findings to help launch the first open-source disintegration database in partnership with the Compostable Field Testing Program (CFTP), setting a new, public baseline for the entire industry.

# The Topline Takeaway

## HOW CERTIFIED COMPOSTABLE PACKAGING PERFORMS IN THE PILE

AVERAGE DISINTEGRATION & RESIDUALS BY SURFACE AREA

compostable  
plastic



**98%**  
disintegration



**2% residuals  
remaining**

This exceeds the 90%  
minimum threshold  
established by compost  
industry groups

compostable  
fiber



**83%**  
disintegration



**17% residuals  
remaining**

This exceeds the 80%  
minimum threshold  
established by compost  
industry groups

**23k**

certified  
compostable  
packaging units  
tested

Across a wide range of composting technologies and systems, both compostable plastics and fiber materials demonstrated consistent and successful breakdown. 🖱️

## KEY RESULT #2

# CATALYZED COMPOSTING INFRASTRUCTURE & INCREASED CIRCULARITY OF COMPOSTABLE MATERIALS

1

### Deployed Direct Funding

We launched the Composting Consortium Grant Program in 2025 with the Biodegradable Products Institute (BPI) and US Composting Council (USCC) to move the needle on acceptance of compostable packaging. We led the operations and selection process to award critical funding to three municipal and five composter-led projects.

3

### Signaled Market Demand

The strong inbound engagement we received highlighted a growing demand for food waste composting and compostable packaging collection, signaling clear market readiness.

2

### Expanded Reach and Capacity

Our grant dollars supported eight projects across three core categories: expanding organics recycling access, increasing composting facility processing capacity and education and outreach. With an investment of just \$200,000, the program expanded organics recycling access to nearly 240,000 U.S. households, reaching more than half a million people.

# Unprecedented Impact

**240k**

New households reached through expanded organics recycling access



**500k**

More Americans now have access to food waste & compostable packaging collection



**9%**

Increase in acceptance pathways for compostable packaging in the U.S.

\*Percentage change based on 2023 BioCycle nationwide survey data

# KEY RESULT #3

## HELPED SHAPE THE LEGISLATIVE AND POLICY LANDSCAPE

1

### Served as a Trusted Technical Voice

The Composting Consortium advanced key thought leadership by conducting critical research and legislative briefs on compostable product labeling, Extended Producer Responsibility (EPR) and compost end markets.

2

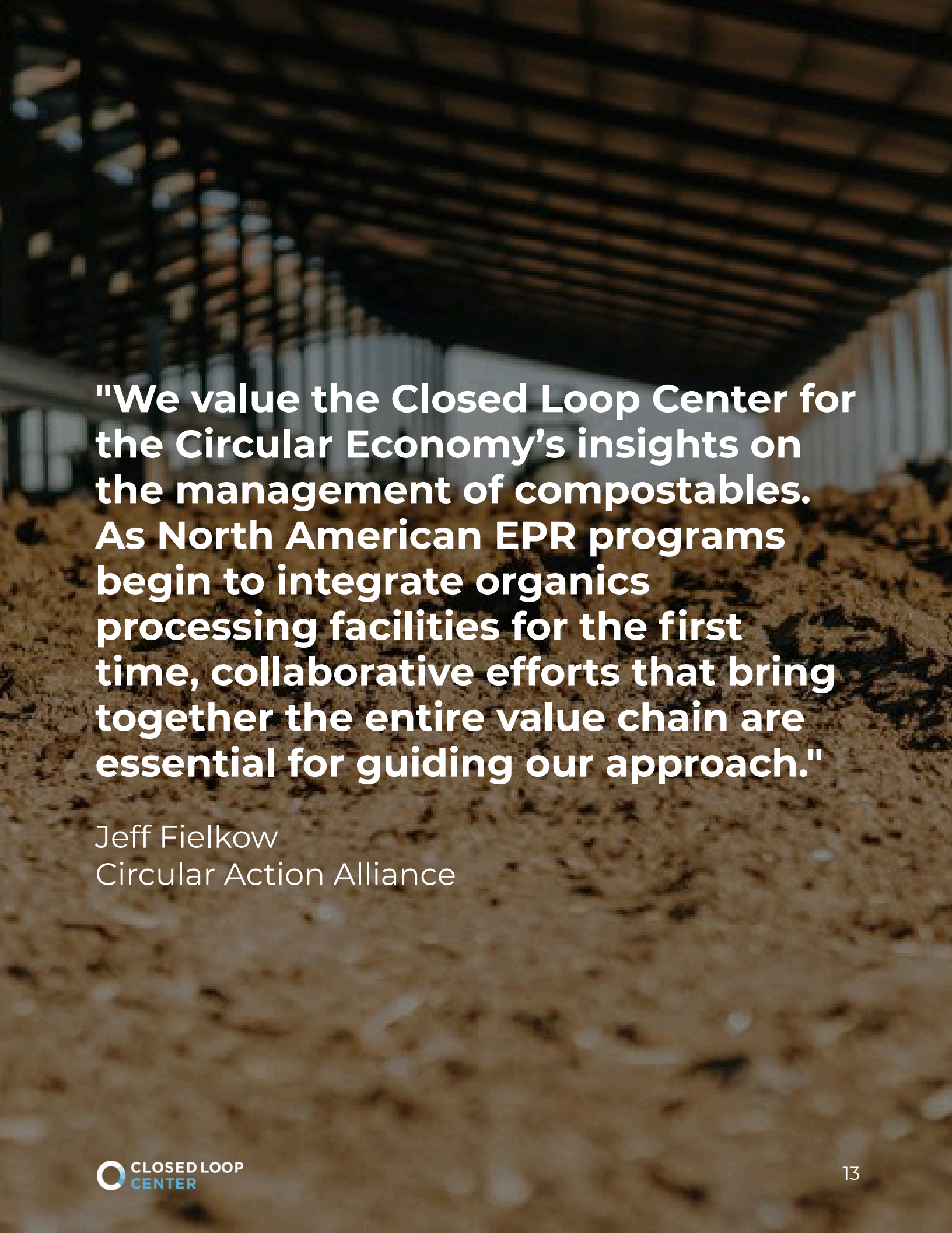
### Supported EPR Leadership

We published a comprehensive EPR reimbursement framework in collaboration with composters to guide states and Producer Responsibility Organizations (PROs) in supporting composting infrastructure and the recovery of compostable packaging through producer funds.

3

### Influenced State Law

Our national labeling study with BPI was used by NGOs to brief and testify before Colorado lawmakers on a landmark labeling law to protect composters from feedstock contamination.



**"We value the Closed Loop Center for the Circular Economy's insights on the management of compostables. As North American EPR programs begin to integrate organics processing facilities for the first time, collaborative efforts that bring together the entire value chain are essential for guiding our approach."**

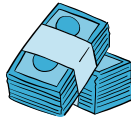
Jeff Fielkow  
Circular Action Alliance

# Recommendations for an EPR Framework

## EPR FUND ALLOCATION

Informed by Composter Insights

Direct operational reimbursement to composters



Technical assistance & upgrades for new facilities or site improvements



Education & outreach for collection programs



Bi-annual waste characterization studies



## What we found

Within EPR programs, composting requires a different approach from recycling

Composter participation depends on compensation for OpEx, end market losses, and contamination

Small capital upgrades can significantly enhance a facility's ability to process compostable packaging

# KEY RESULT #4

## ADVANCED INDUSTRY BEST PRACTICES

# 1

### Validated ASTM Standards

The Composting Consortium successfully field-tested the ASTM standards D8618 and D8619 for field-testing compostables, bridging the gap between controlled lab performance and real-world facility conditions.

# 2

### Strengthened Operational Guidance

Our research will help inform a dedicated chapter in a forthcoming national field guide for compost manufacturers, spearheaded by USCC and Compost Research & Education Foundation (CREF), strengthening the scientific basis for processing compostable packaging.

# 3

### Quantified the Cost of Contamination

We established one of the first baselines for contamination types and contamination-related costs in composting operations. This research revealed that contamination management represents about 1/5 of operating costs on average—and has since encouraged composters to quantify these costs for themselves.

# 4

### Clarified Labeling Best Practices

Through a national survey, we identified best practices for labeling compostable and non-compostable packaging, in partnership with BPI. Our findings offer practical guidance for brands and manufacturers seeking to reduce consumer confusion and improve circular outcomes for compostables.

# Our Critical Findings

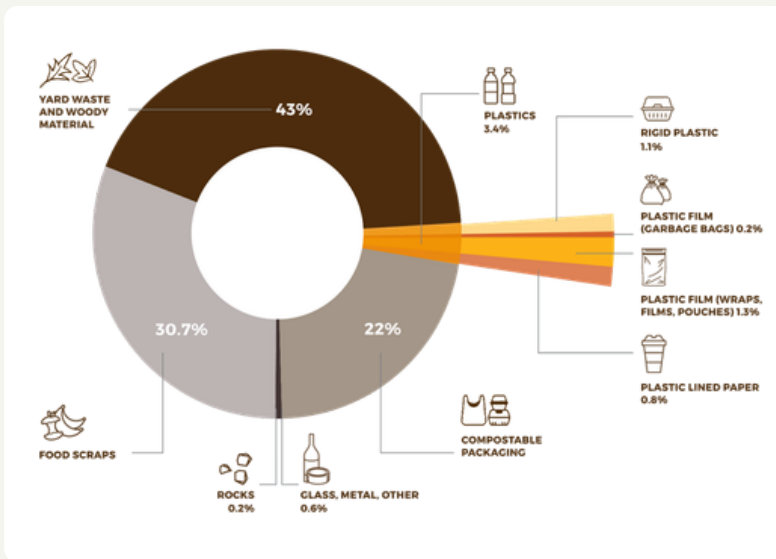
Certified, food-contact compostable packaging sufficiently breaks down at **commercial composting facilities that meet reasonable operating parameters** (i.e., compost pile moisture, temperature, oxygen, pH, etc.)

## WHAT ARE REASONABLE AND PREFERRED RANGES FOR COMPOSTING CONDITIONS?

Operating parameter	Reasonable range	Preferred range
C:N	20:1-40:1	25:1-30:1
Moisture	40-65%	50-60%
Oxygen	>5%	> 5%
Particle size	1/8 – 1/2	Varies
pH	5.5-90.0	6.5-8.0
Temperature	110-150 F	130-140 F

Adapted from *Recommended Conditions for Rapid Composting* outlined in "The Composting Handbook" (Rynk, et al., 2022)

## FEEDSTOCK MAKEUP ACROSS 9 FACILITIES THAT ACCEPT FOOD WASTE AND COMPOSTABLE PACKAGING, BY VOLUME



Conventional plastic represents 85% of contamination by volume. **Contamination affects most composters, regardless of what materials they accept, and consumes 21% of operating costs on average.**

Consumers **best recognize and prefer compostable packaging** that uses **2-3 clear design cues**, such as prominent text and green or brown coloring or striping.

## INCREASED LIKELIHOOD (%) OF A PRODUCT BEING IDENTIFIED AS COMPOSTABLE



## KEY RESULT #5

# BUILT A COLLABORATIVE ECOSYSTEM

1

### **Brought Key Stakeholders Together**

The Composting Consortium established a platform for collective action that brought together brands, material manufacturers, composters, municipalities, NGOs, industry groups and academic institutions to address systemic barriers.

3

### **Formed Trusted Partnerships**

We built trust and credibility across the value chain on complex, often challenging issues, while fostering enduring relationships with composters, municipalities, brands and industry groups across the country who contributed meaningfully to this work.

2

### **Launched Innovative Platforms**

In 2024, we launched the Composter Innovator Program and Municipal Partner Platform to give operators and city leaders a seat at the table on EPR policy and best practices for scaling composting infrastructure and organics programs.

# Powered by Partnership

11

authored reports,  
briefs and white  
papers



50+

partners in the  
Composting  
Consortium



4.5

years of  
collaboration

# THE PATH FORWARD

## A CIRCULAR SOLUTION FOR A WASTE-FREE WORLD

The Composting Consortium’s work has advanced a data-backed, holistic understanding of compostable packaging’s role in organics circularity, reinforcing the understanding of composting’s value in a circular economy. Continued momentum will depend on expanded infrastructure, clear policy and sustained alignment across the value chain. The insights, research, and partnerships developed through this work will continue to inform Closed Loop Partners’ broader efforts to advance circularity through reduction, reuse and recovery.

## OUR PARTNERS

Thank you to our partners who made this work possible from the beginning. This remarkable convening of industry stakeholders accomplished tangible, systems-level progress—transforming shared ambition into coordinated action and measurable impact.

<p>MANAGING PARTNER</p> 		<p>CORPORATE PARTNERS</p>      					
<p>MATERIAL INNOVATION PARTNERS</p>    			<p>INDUSTRY PARTNERS</p>  				
<p>COMPOSTER PARTNERS</p>							
        		        					
<p>ADVISORY PARTNERS</p>             							



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