BPI

How Compostable Products Drive Waste Reduction

Pathways to Plastics Reduction - LA City Symposium

January 11, 2024

Founded in 1999, BPI is the leading authority on compostable products and packaging in North America.

Certification

Rigorous program combining scientific standards and design requirements for reliable compostability claims.

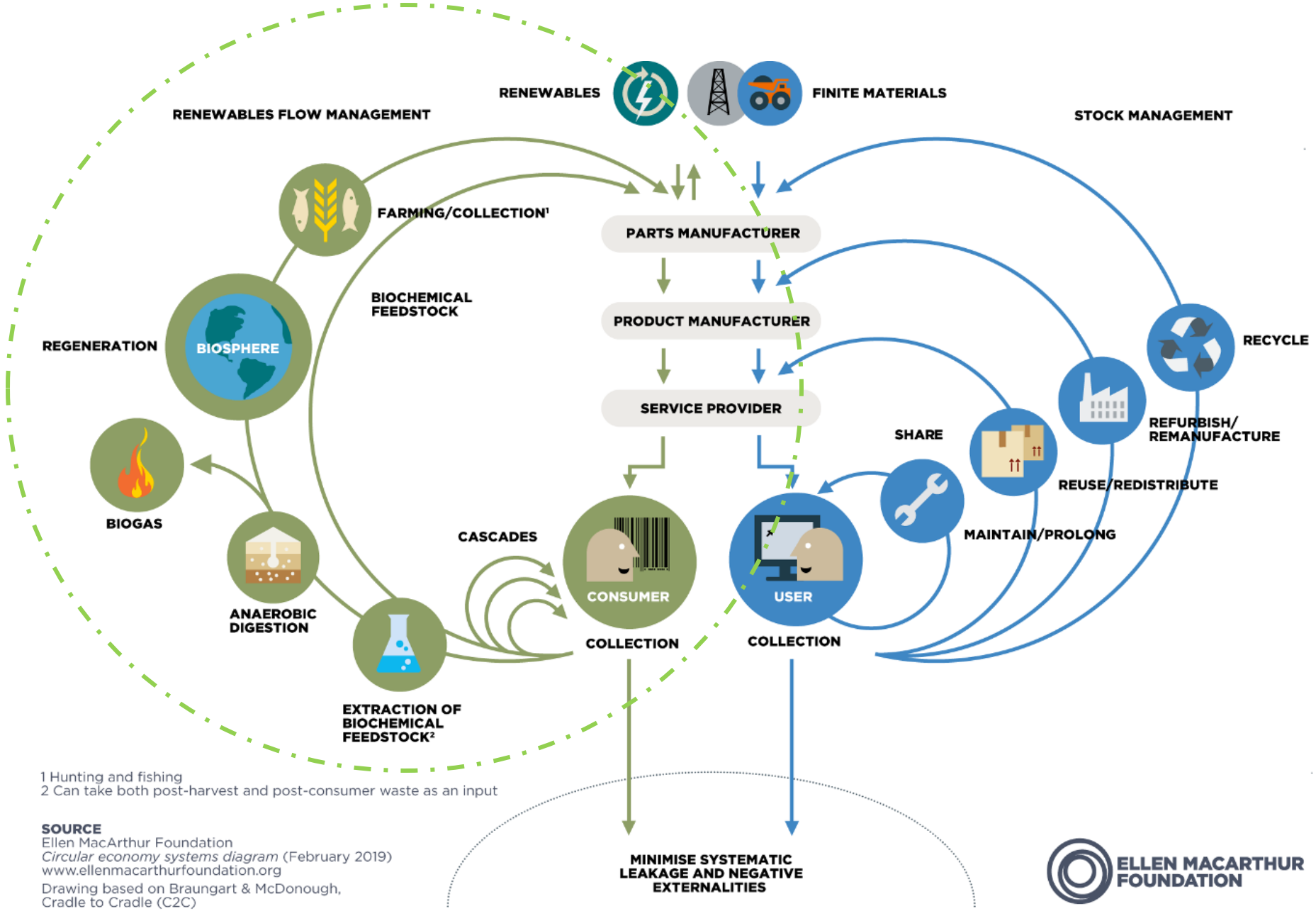
Education

Communication and marketing programs highlighting the connection of packaging to climate change and the circular economy.

Advocacy

Comprehensive government affairs program advancing policy to increase access to composting.

Compostability is aligned with the goals of the circular economy.

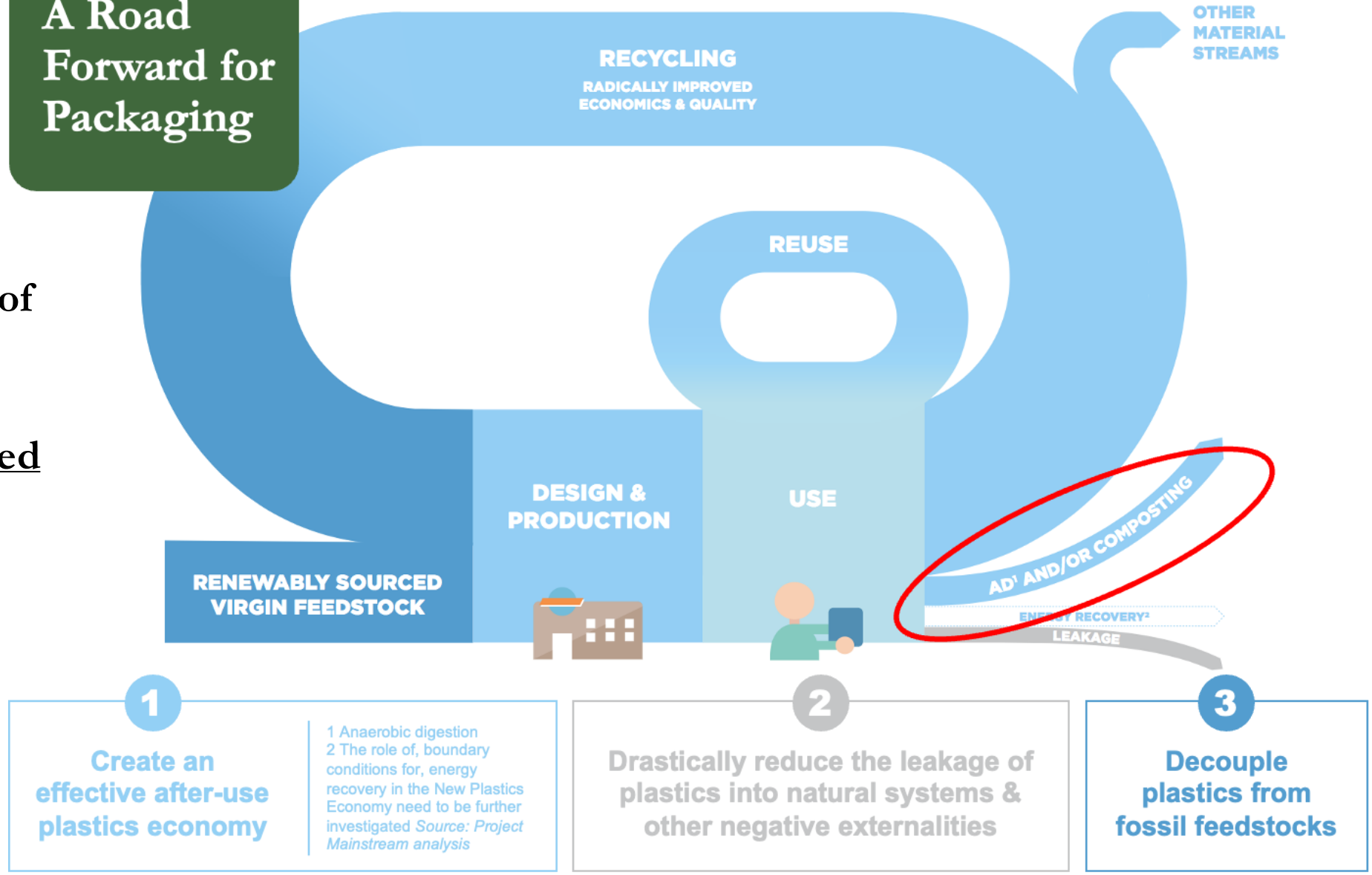


1 Hunting and fishing
2 Can take both post-harvest and post-consumer waste as an input

SOURCE
Ellen MacArthur Foundation
Circular economy systems diagram (February 2019)
www.ellenmacarthurfoundation.org
Drawing based on Braungart & McDonough, Cradle to Cradle (C2C)

A Road Forward for Packaging

Compostability is part of the solution, suited for <u>non-recyclable, non-reusable, food-associated applications</u>.



SOURCE: ELLEN MACARTHUR FOUNDATION

BPI's Rigorous Certification Process

Materials Ingredients Finished Items

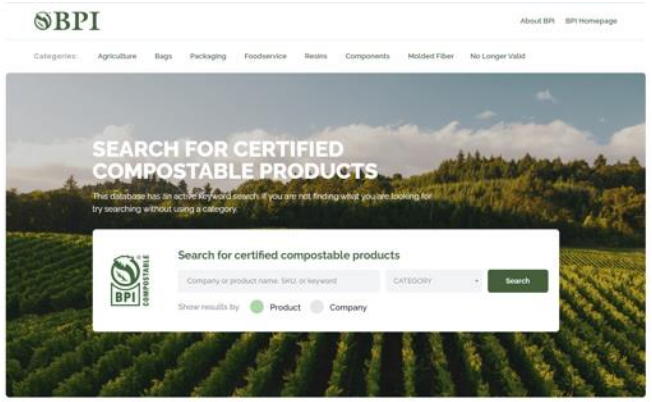
Eligibility

- Must be related to organic waste
- Must not be a better fit for recycling
- Must not require disassembly
- Must be able to label finished items
- Must not use PFAS

Testing at BPI-Approved Labs to ASTM Standards

TÜVRheinland®
DIN CERTCO

Third-Party Conformity Assessment Based on BPI Certification Scheme

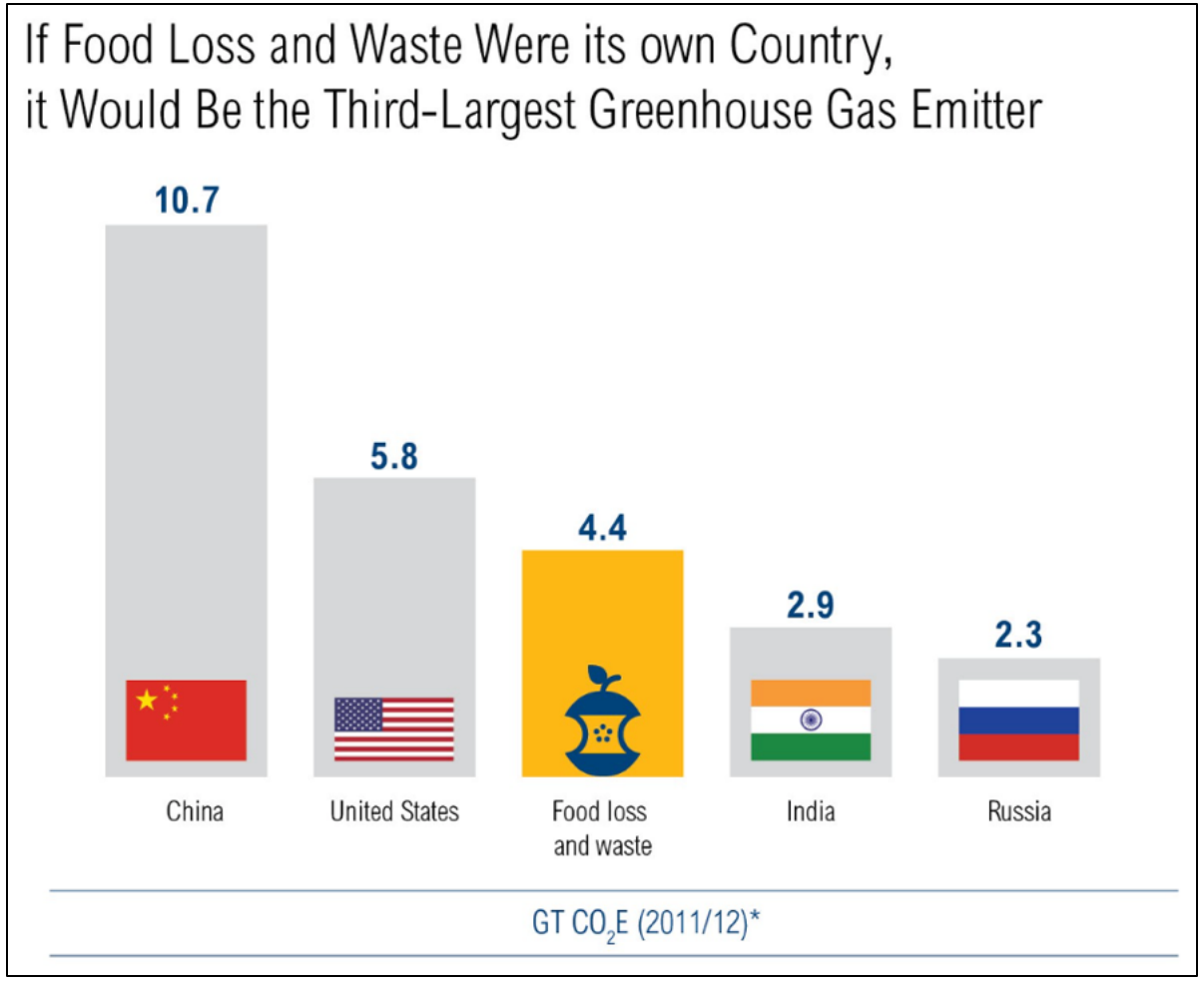


Artwork Review & Licensing

BPI® COMPOSTABLE

Listed in BPI Online Product Database

Connecting to the Global Climate Change Movement



Food and Agriculture Organization of the United Nations

WORLD RESOURCES INSTITUTE

Soil Health, Carbon Sequestration, Regenerative Agriculture

Barrier: Contamination

Composter Confidence: Contamination

Contamination is the biggest threat to compostable products getting composted.

The problem is a combination of:

1. Education/awareness - Consumers placing recyclables and trash in the compost bin.
2. Labeling - Compostable items need to be labeled, and non-compostable items must be prohibited from using similar identifiers.
3. Screening – To combat contamination many composters prescreen everything, including certified compostable products.

What Can Be Done about Contamination?

Certification: On-product labeling is already a requirement for BPI certification, and only items associated with food scraps can be certified (e.g., no general purpose wipes)

Education/Marketing: BPI published labeling guidelines and in 2022, co-funded a consumer test on labeling with Closed Loop's Composting Consortium.

Advocacy/Policy: BPI's has successfully advocated for laws requiring labeling and laws providing funding to composters through Extended Producer Responsibility (EPR).

BPI's Certification Mark Usage Requirements

5 ELEMENTS

BPI CERTIFICATION MARK ELEMENTS

1. The BPI "Swirl" design element
2. The letters "BPI"
3. At least one "Compostable" claim separate from the FTC disclaimer statement

OTHER ELEMENTS

4. Identifier (company name, brand name, or company ID/ CERT #)*
5. Disclaimer/ qualifier language required by the FTC and CB

*Strongly recommended but not required for non-printed items. BPI reserves the right to update this policy as market dynamics dictate.

BPI-CLP Consumer Test

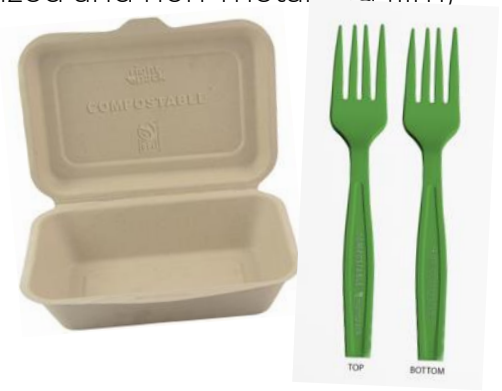
How we tested: 156 designs across 10 categories of compostable packaging

Food-contact packaging categories:

- Clamshell containers
- Cold beverage cups
- Cold beverage lids
- Hot beverage cups
- Hot beverage lids
- Cutlery
- Plates
- 2 Flexible films (i.e. metalized and non-metalized film)
- 1 Biopolymer bag

Labeling techniques:

- Tinting
- Printing
- Embossing
- Coloring



Labeling elements:

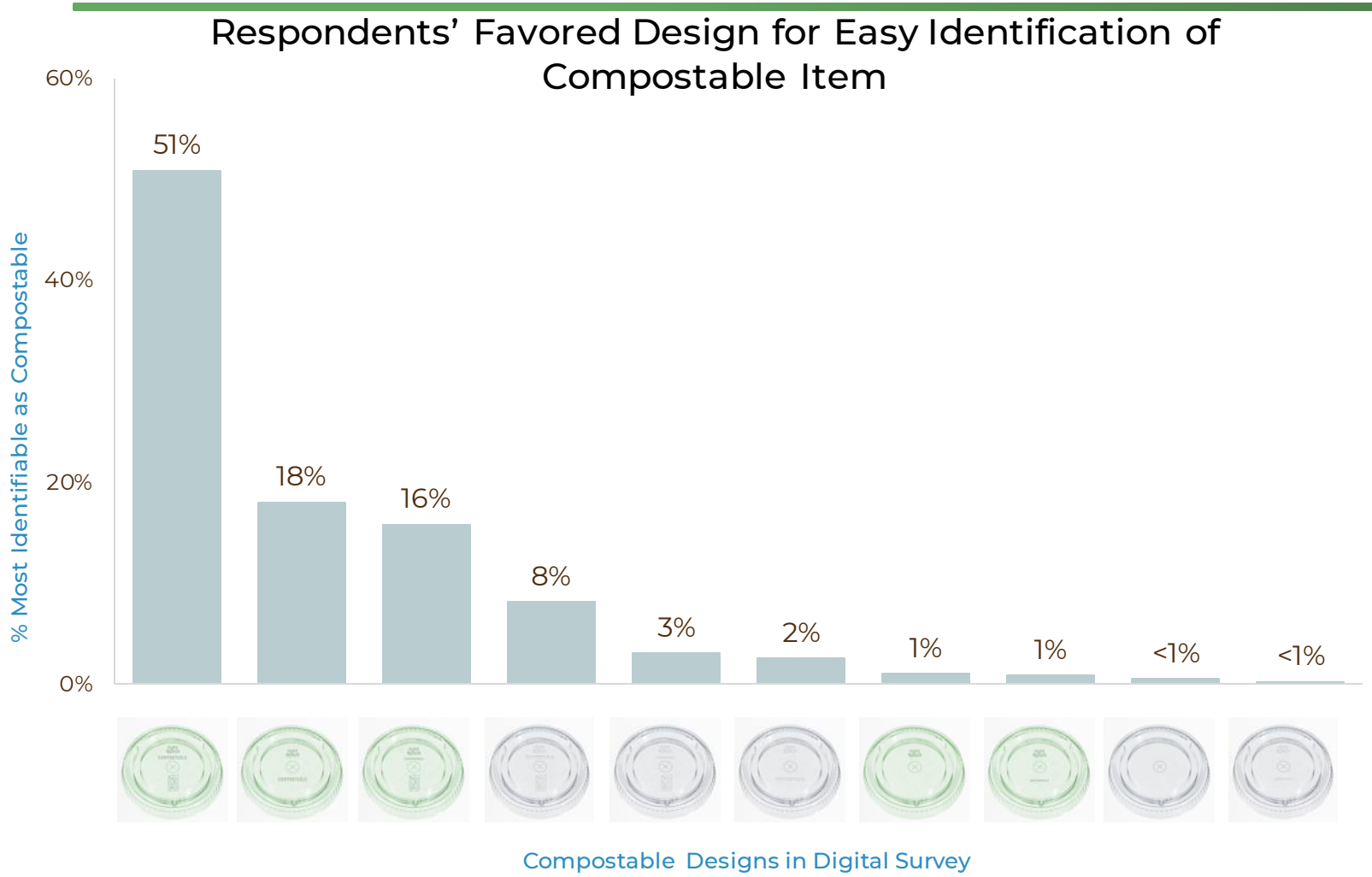
- Green striping
- Brown striping
- Green font
- Brown font
- 'Compostable' large
- 'Compostable' small
- BPI certification mark
- How2Compost label

'Look-alike' labeling elements/techniques:

- "Biodegradable"
- "Made from plants"
- Use of color/tint without any identification language
- Leaf icon (made up brand)

BPI COMPOSTING CONSORTIUM CLOSED LOOP partners

2022 BPI-CLP Consumer Test: Example of Cold Cup Lids



Design Most Clearly Identified as Compostable – <u>needs 2-3 design elements</u>

BPI COMPOSTING CONSORTIUM CLOSED LOOP partners

Barrier: Rate of Breakdown

Composter Confidence: Rate of Break Down

ASTM and ISO compostability standards are the basis of global certifications and show products break down into carbon dioxide, water, inorganic compounds, and biomass.

Variability in composting conditions means field testing provides valuable information for the operator, but they aren't widely repeatable or reproducible (i.e., better suited for research).

Variables include:

- Processing conditions* (temperature, moisture, C:N, pH, time, etc.)
- Feedstocks accepted (seasonal variations can have a significant impact)
- Placement of the test item in the pile and impact of the mesh bag used for tests

*No standard for processing conditions exists

What is Contaminating Piles? Overs Testing

- In 2022 BPI launched a **free** overs test for composters, with a simple online form.
- Designed to build a feedback loop between BPI and composters, to build trust by offering to check items, and to show that most plastics in the overs are contamination.
- First sets of samples tested were green bags/films at two different sites, all of which were determined to be PE/LDPE and were not "failed" compostables. https://bpiworld.org/overs-testing

Calls To Action

- For composting, like with reduction and reuse, success requires investment and time. These pathways aren't in competition.
- The state of California is already poised to address certain issues (labeling, Organic Ag limitations), while localities address others (food ware ordinances)
  - Adding regulatory layers at local levels could thwart future success
- Contamination remains the biggest threat to composting food scraps diversion and compostable products.
  - We need to work together to address common contaminants and agree on what on-product labeling prevents contamination.
- Certified compostable products break down in facilities designed and operated to accept them.
- We need share our combined success stories to build trust, develop feedback loops, and agree on research that defines the **process conditions** needed for products to break down.

BPI is committed to advocating for the role of certified compostable products in the circular economy to combat climate change and support regenerative agriculture.

BPI

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