Stonyfield ORGANIC®

POUCH PACKAGING SUSTAINABILITY "HOW-TO" GUIDE

JULY 2025

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INTRODUCTION: WHY THIS GUIDE AND HOW TO USE IT

Stonyfield has prioritized more sustainable solutions since its founding. To continue this leadership, Stonyfield has set the following **packaging aims:**

- **Reduce carbon footprint of packaging by at least 15%** to support the absolute reductions needed for Stonyfield's science-based target by 2030 from a 2020 baseline.
- **Lightweight packaging components 10%**, by eliminating all unnecessary components and reducing packaging weight by 2030 from a 2020 baseline.
- By 2030, have a packaging portfolio that is **entirely bio-based or made from recycled materials.**
- Continue our commitment **to keep toxic materials out of our packaging**.

As a fast-growing format in the kids' yogurt category, pouches presented a natural opportunity for Stonyfield to implement packaging sustainability initiatives.

This "How-To" guide is a tactical resource that offers considerations to help dairy pouch manufacturers align with state-level extended producer responsibility (EPR) objectives, reduce greenhouse gas (GHG) emissions and packaging weight, and make progress toward the sustainability of pouch packaging through the use of all-polyethylene (PE) pouch materials and lightweight components. This guide aims to support procurement and sustainability teams in implementing pouch conversion.

Thank you to the Northeast Dairy Business Innovation Center (NE DBIC) for providing grant funding to support this work, Pure Strategies for helping us identify packaging improvement opportunities and collaborating on this guide, and the Association of Plastic Recyclers (APR) for reviewing this guide.

Look for this icon throughout the guide to learn about how Stonyfield approached different challenges during its sustainable pouch journey.

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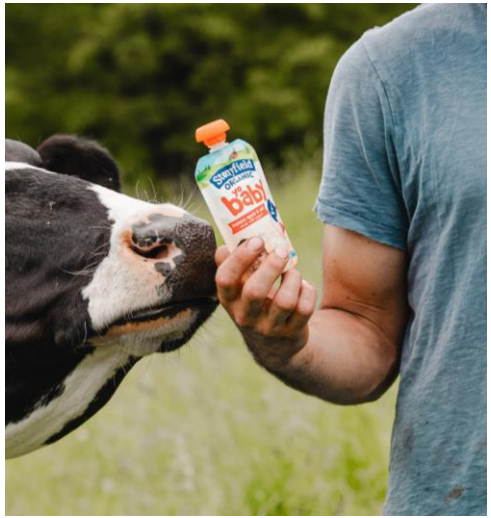
The links included throughout this guide were up to date at the time of publication, but are not maintained.

INTRODUCTION: CHALLENGES WITH POUCHES & FLEXIBLE PACKAGING

One key obstacle to the recyclability of multi-material laminates is that they lack a likely recycling stream with a viable end market. As a result, one approach to improving pouch sustainability is to redesign pouches to be more compatible with potential future recycling capabilities, such as the rigid HDPE stream.[1]

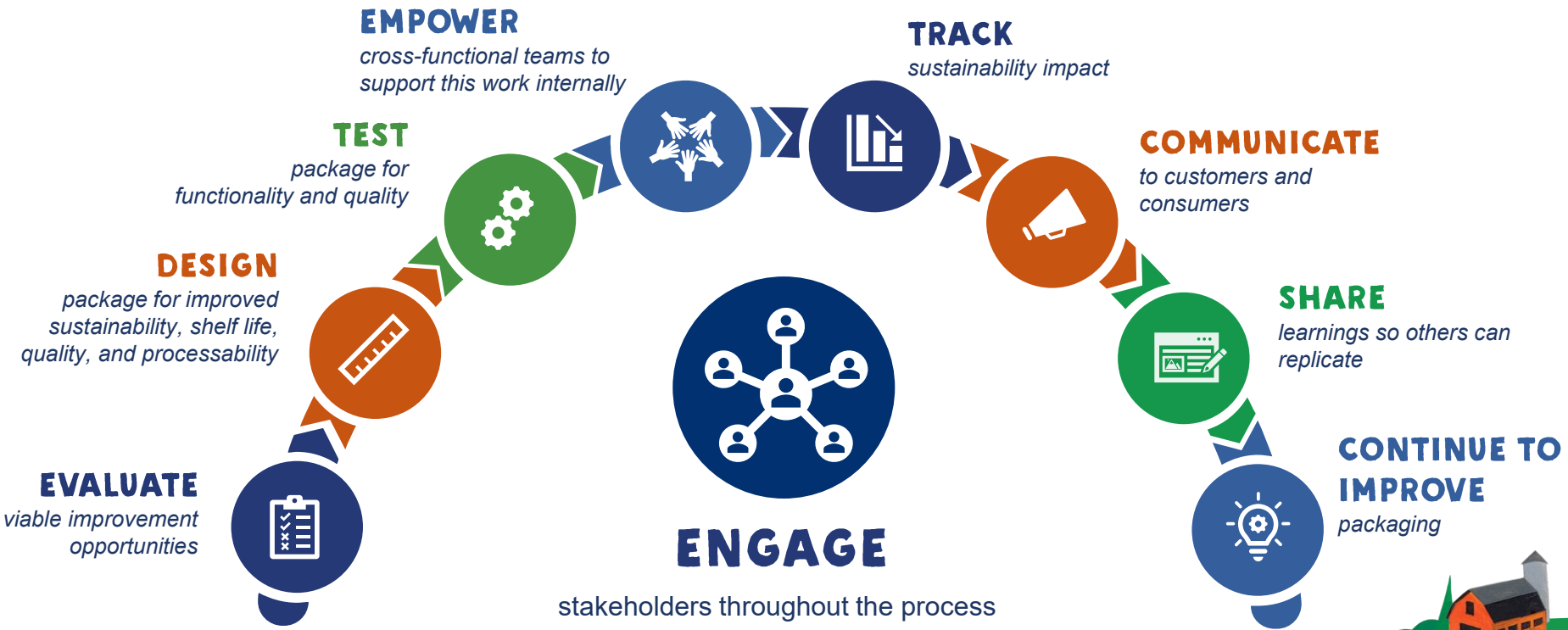


- **Pouches made from multiple materials** (e.g., different plastic resins and aluminum) can offer consumers convenient, durable, and lightweight packaging solutions for food and beverage products. These product quality functions can be complex to replace with other solutions.
- **Lack of viable end markets** for recovered or processed multi-material laminates, however, is a significant roadblock to either current or future recyclability of multi-material pouches.
- **Redesigning pouches** to be more compatible with potential future recycling capabilities is a key step toward more sustainable packaging.
- **Designing for recyclability** involves assessing the package's base material, color, closure material, coatings, additives, inks, adhesives, shape, and size.
- **Collaboration** across the value chain and various sectors is necessary to support packaging sustainability efforts.

[1] Reference Sustainable Packaging Coalition (SPC) Introduction to Flexible Packaging Recovery guide and The Recycling Partnership (TRP) Film & Flexibles Recycling Coalition for more information.

INTRODUCTION: POUCH PACKAGING SUSTAINABILITY OVERVIEW

This guide outlines nine key considerations for improving pouch packaging sustainability. Engaging internal and external stakeholders throughout this work can support sustainability benefits and organizational progress.



INTRODUCTION: CONSIDERATIONS FOR POUCH PACKAGING IMPROVEMENTS

Considerations for implementing pouch packaging sustainability initiatives

EVALUATE viable improvement opportunities	❑ Identify potential improvement opportunities for pouch redesign ❑ Reference industry resources to help evaluate opportunities ❑ Integrate business considerations when assessing improvement opportunities ❑ Collaborate with new and existing suppliers on sustainability
DESIGN package for improved sustainability, shelf life, quality, and processability	❑ Design pouch to improve sustainability outcomes ❑ Design pouch to be compatible with shelf life, quality, and processing needs
TEST package for functionality and quality	❑ Test updated pouch design and tooling changes in manufacturing process ❑ Test for design conformity to shelf life, quality, and processability specifications ❑ Pilot updated pouch design on a portion of portfolio to troubleshoot key issues before scaling
EMPOWER cross-functional teams to support this work internally	❑ Gain internal buy-in for pouch improvements ❑ Demonstrate success via pilots and eventually project replication ❑ Recognize employees for contributions
TRACK sustainability impact	❑ Develop packaging inventory to understand opportunity areas ❑ Extrapolate improvements from the component level to all units purchased to track progress against key metrics across the entire packaging portfolio ❑ Collect primary data from suppliers
COMMUNICATE to customers and consumers	❑ Showcase how company work can support customer packaging sustainability initiatives to drive cross-value chain collaboration ❑ Educate consumers about packaging improvements to increase acceptance and improve end-of-life outcomes ❑ Make accurate, transparent, and verifiable claims to avoid greenwashing and engage with third parties to validate
SHARE learnings so others can replicate	❑ Document and publish learnings ❑ Engage across the industry as projects scale and expand
CONTINUE TO IMPROVE packaging	❑ Expand packaging efforts that integrate sustainability attributes at scale and address other packaging hotspots
ENGAGE STAKEHOLDERS throughout the process	❑ Engage with stakeholders who help focus and align efforts with best practices, build collective action, and amplify the work at across each phase of the process

EVALUATE VIABLE IMPROVEMENT OPPORTUNITIES

- ❑ **Identify potential improvement opportunities** for pouch redesign, such as end-of-life considerations, material efficiency, material sources, and material health
- ❑ **Reference industry resources**, such as directories, conferences, and expos, to help evaluate opportunities
- ❑ **Integrate business considerations**, such as emerging regulations and consumer expectations, when assessing improvement opportunities
- ❑ **Collaborate with new and existing suppliers** on innovation, data collection, regulatory compliance, and shared sustainability aims

EVALUATE VIABLE IMPROVEMENT OPPORTUNITIES

Opportunities to enhance pouch sustainability cover a range of packaging design considerations

Potential pouch sustainability improvement opportunities

Optimize end-of-life outcomes	Design for compatibility with current or future recycling capabilities, or design for compostability (if appropriate)
Reduce materials	Lightweight components or remove extra components
Source sustainable materials	Increase recycled content and source sustainably-derived renewable bio-based content when recycled content not possible
Enhance material health	Avoid problematic and unnecessary materials
Communicate end-of-life outcomes	Make accurate, transparent, and verifiable claims to avoid greenwashing

Resources to help companies identify sustainable pouch packaging solutions in the market

- **Directories and lists**, such as Walmart's Circular Connector tool and APR's Buyers & Sellers Directory, connect those seeking packaging sustainability solutions (including recycled content) with those offering them via online portals and downloadable lists of solutions and suppliers.
- **Packaging sustainability and circularity conferences** bring together stakeholders from across the packaging value chain to discuss existing and emerging packaging solutions, innovations, technologies, policies, and regulations to inform company-level solutions. Key conferences include SPC Impact and Advance, Trellis Circularity, and Sustainable Packaging Innovation Forum USA.
- **Packaging sustainability and consumer goods expos or trade shows** showcase a range of packaging suppliers, solutions, innovations, and technologies. Key expos include Pack Expo and Natural Products EXPO WEST.
- **NGO awards or features**, such as Sustainable Packaging Coalition's (SPC) Innovator Awards, recognize companies that are making strides in packaging sustainability.

EVALUATE VIABLE IMPROVEMENT OPPORTUNITIES

Designing pouches to incorporate sustainability considerations may also support other business objectives, such as reducing exposure to regulatory risks and fees.

Extended producer responsibility (EPR) regulations are state-level laws[1] that assign producers responsibility for the end-of-life of packaging, with a focus on **packaging design**, **system improvements**, and **shifting to**:

- Reusable, recyclable, compostable packaging
- Reduced packaging
- Recycled content in packaging
- Higher recycling rates of packaging

Data reporting and fee payment started in 2025. EPR fees are intended to cover the costs of infrastructure and processes necessary for managing used packaging.

Additional considerations that may support the business case for improving pouch sustainability:

- Pouches make up a significant portion of company's current packaging portfolio by weight
- Pouches contribute a significant portion of packaging GHG emissions
- Pouches are currently or expected to be a growth category in the future
- Company controls (i.e., can make decisions) over pouch material supply chains
- Company has packaging sustainability targets it is working towards
- Pouch film and cap components may contain excess material that can be reduced through lightweighting
- Pouch components are made from multiple materials (e.g., plastic and metal or multiple incompatible plastic resins) rather than one material
- Pouch packaging materials are not aligned EPR regulation aims

[1] Information is based on the status of EPR as of June 2025.

EVALUATE VIABLE IMPROVEMENT OPPORTUNITIES

Companies can consider using best practices for plastic film and flexible packaging, aiming for potential acceptance in recycling streams alongside other PE-based packaging. The Association of Plastic Recyclers (APR) Design® Guide and Consumer Goods Forum Golden Design Rules offer guidance to support more sustainable plastic packaging design.

Stonyfield's redesigned pouches are not yet "recyclable" but rather are designed using packaging sustainability best practices with the goal of potential future acceptance in recycling streams.

	"Recyclable"	Packaging design that aims for potential future acceptance in recycling streams
Explanation	The U.S. Federal Trade Commission (FTC) outlines that a package is **recyclable** when it can be collected, separated, or otherwise recovered from the waste stream through an established recycling program for reuse or use in manufacturing or assembling another item, provided that recycling facilities are available for at least 60% of consumers or communities where the item is sold. Companies should align with local laws and regulations (e.g., state-level rules) that define what can be considered "recyclable".	Many materials are not yet considered "recyclable" due to recycling system and infrastructure challenges that must be addressed to ensure they can be collected, sorted, processed, and used for recycled content. Even when these materials are not yet recyclable, companies can consider redesigning pouches and other packaging to follow packaging sustainability best practices for plastic film and flexible packaging, aiming for potential future acceptance alongside other PE-based packaging.
Example	HDPE bottles consumers can recycle through local curbside recycling programs	All-PE pouches that are not yet recyclable curbside

EVALUATE VIABLE IMPROVEMENT OPPORTUNITIES

Suppliers can be key collaborators in redesigning packaging to enhance sustainability attributes and tracking progress toward packaging sustainability goals.

Companies can consider the following when selecting new and engaging existing suppliers with the capacity and expertise to support this work:

- **Integrate** packaging sustainability into supplier qualifications, reviews, and contracts. This can include activities such as data collection, improvement, or innovation.
- **Ask** suppliers about ideas to support corporate packaging goals and explore other opportunities for innovation and collaboration.
- **Educate** suppliers and internal employees to understand the purpose behind requesting sustainability information.
- **Share** considerations for designing pouches with sustainability in mind with suppliers to help them explore ways to provide solutions.
- **Collaborate** with suppliers to test and trial new packaging options.
- **Collect data** from suppliers to track sustainable packaging and progress.
- **Encourage** suppliers to set science-based targets for GHGs and use renewable energy in processing and transportation to demonstrate their commitment to sustainability. Companies can also select suppliers already engaged in this work.

EVALUATE VIABLE IMPROVEMENT OPPORTUNITIES

Different suppliers can play distinct roles in improving the sustainability of pouch packaging and addressing challenges throughout this journey.

Example supplier type	Potential role(s) in sustainability efforts	Stonyfield case studies
Film or roll stock suppliers	• Support material innovation and identify opportunities (e.g., all-PE film) • Provide expertise to ensure that sustainability aims also align with performance specifications • Educate customers to understand trade-offs (e.g., barrier performance versus recyclability) • Test compatibility with other components (e.g., caps) and on fill line equipment	Stonyfield pouches use Amcor's AmPrima® Plus, an all-PE film, designed to meet the APR Design® Guide for Plastics Recyclability.
Component (e.g., cap) suppliers	• Design components to work toward potential future recyclability • Offer reduced weight and bio-based or recycled content options • Test compatibility with other components (e.g., film) and on fill line equipment	Cheer Pack North America's Vizi™ cap was designed to be 17% lighter than the standard pouch cap. Stonyfield is currently working to evaluate the potential future sustainability impact of the all-PE full-pouch design that incorporates this Vizi™ cap.
Machinery and equipment manufacturers	• Supply fill lines or parts to retrofit fill lines to run with new package design(s) • Enable use of different materials (e.g., PE) without impacting package quality • Minimize downtime and waste when retrofitting previous design to new design	Stonyfield worked with equipment manufacturer to ensure the new production line was compatible with running the new Vizi™ caps before modifying and constructing filling lines.

EVALUATE VIABLE IMPROVEMENT OPPORTUNITIES

Selecting suppliers that are willing to innovate and work on designs targeting improved packaging sustainability, or who already have proven solutions in the marketplace, can help support this work.

Cheer Pack North America collaborated with Amcor film supplier to develop the first generation of Stonyfield all-PE pouches.

Stonyfield continues to expand this work with pouch supplier Gualapack.

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Science-Based Targets initiative (SBTi) GHG reduction targets are those that are aligned with climate science to reduce the level of carbon required to limit global warming to 1.5°C.

Amcor has a public SBT, and Gualapack has committed to setting one, showing these suppliers' commitment to not only their own sustainability efforts but also those of their customers.

DESIGN PACKAGE FOR IMPROVED SUSTAINABILITY, SHELF LIFE, QUALITY AND PROCESSABILITY

- ❑**Design pouch** for improved sustainability, including optimizing compatibility with current or future recycling capabilities, reducing materials, sourcing sustainable materials, enhancing material health, and communicating end-of-life outcomes

- ❑**Design pouch** to be compatible with shelf life, quality, and processing needs

DESIGN PACKAGE FOR IMPROVED SUSTAINABILITY, SHELF LIFE, QUALITY AND PROCESSABILITY

Improving pouch sustainability can involve designing with the goal of potential future recycling, lightweighting components, and utilizing recycled or bio-based materials, where feasible.

Considerations for designing pouches for improved sustainability[1]	
Design for compatibility with current or potential future recycling capabilities[2] **or for compostability[3]**	❑ Pouch resin: Use only polyethylene (PE) and comparable materials in a package unit to improve potential future recyclability; exclude other materials such as other plastic types, metals, paper, etc.; refer to APR Design® Guide for more technical considerations for material use ❑ **Color**: Use unpigmented, white, buff, or light colors ❑ **Closures**: Use same material (PE) as pouch; testing may be required to evaluate the extent to which HDPE and LDPE may be processed together in current or potential future processing systems ❑ **Barrier/coating/additives/layers**: Minimize use of additives when possible; if necessary, refer to APR Design® Guide for preferred additives ❑ **Labels and design features**: Use same material (PE) as pouch and closure; exclude other materials such as other plastic types, metals, paper, etc.; minimize use even of recycling-compatible inks and adhesives when possible ❑ Evaluate if compostability is appropriate for packaging based on shelf life, barrier needs, end-of-life behavior, and potential for food waste[3]
Reduce materials	❑ Reduce the weight of the package when possible while still ensuring the product is adequately protected ❑ Remove extra packaging components that do not protect the product
Source recycled and sustainably-**derived renewable content[4]**	❑ Increase post-consumer recycled (PCR) plastic: SPC points to the ability to include 20-30% PCR in flexible PE ❑ Use sustainably-sourced renewable bio-based content when recycled content not possible
Enhance material health[5]	❑ Reference the U.S. Plastics Pact list of problematic and unnecessary materials to avoid, including PVC, PVDC, PS, EPS, PETG, or oxo-degradable additives or plastics, and others
Communicate recyclability	❑ Make accurate, transparent, and verifiable claims that are aligned with appropriate authorities (e.g., U.S. FTC guidance and state laws) to avoid greenwashing ❑ Consider (where applicable and in accordance with appropriate authorities) incorporating labeling elements (e.g., disposal instructions, How2Recycle® label) to communicate to consumers about packaging disposal ❑ Engage with counsel as well as third-party verification and certification organizations, such as APR and SPC, to obtain full package recognition or component recognition from suppliers, and to support and validate claims

[1] Considerations in this table are summarized from APR, SPC, and U.S. Plastics Pact; review the complete resources and guides for full details. [2] Considerations summarized from APR Design® Guide for PE flexible packaging. [3] More information on compostability can be found in the following SPC guides: Understanding the Role of Compostable Packaging in North America, Ensuring the Success of Compostable Packaging, Designing Packaging to Prevent & Divert Food Waste. [4] Considerations summarized from SPC Guide to Recycled Plastics for Packaging, Part II – Sourcing & Qualification. [5] Considerations summarized from U.S. Plastics Pact Problematic and Unnecessary Materials Report.

DESIGN PACKAGE FOR IMPROVED SUSTAINABILITY, SHELF LIFE, QUALITY AND PROCESSABILITY

Stonyfield designed the updated pouch using principles from the APR Design® Guide and with lightweighted film and cap parts.

Specific changes to Stonyfield pouch packaging

- ✓ Changed film material from multi-material laminate plastic film to all-PE, making the entire package PE (including gusset and cap)
- ✓ Lightweighted film by 0.38 grams and cap by 0.48 grams
- ⟳ Evaluating PCR content for future pouch packaging designs
- ✓ Incorporated material health considerations by excluding problematic and unnecessary materials
- ⟳ Exploring potential on-pouch communication about sustainability improvements

✓: Complete
⟳: In-progress

TEST PACKAGE FOR FUNCTIONALITY AND QUALITY

- ❑ Test updated pouch design and tooling changes in manufacturing process
- ❑ Test for design conformity to shelf life, quality, and processability specifications
- ❑ Pilot updated pouch design on a portion of portfolio to troubleshoot key issues before scaling

TEST PACKAGE FOR FUNCTIONALITY AND QUALITY

Stonyfield conducted three separate trials to evaluate the performance of new materials in a laboratory setting, to help minimize long-term product and packaging waste.

The three trials included:

1. **"Worst-case scenario" trial** to test **processability**, or if the new PE plastic resin could run on existing manufacturing lines without any yogurt inside.
2. **"Non-saleable" trial** where Stonyfield filled pouches with water to test the **quality** and **durability** of the pouches when filled.
3. **"Product" trial** where Stonyfield filled the pouches with yogurt ahead of the actual product launch to validate **shelf life**.

Topic	Key lessons learned during trials
Pouch film	✓ **Film material change:** Transitioning from multi-material laminate resin to an all-PE film resin did not require many modifications to the fill line machinery or equipment, as both materials are plastic-based. ✓ **Waste**: Scrap produced in filling the updated pouch was comparable to that of the previous pouch design. ✓ **Printing**: Trials were initially done using blank pouches. Since PE stretches more than multi-material laminate film, the first batch of pouches failed the first "print test" and did not meet Stonyfield's image quality specifications. Stonyfield recommends running trials using printed samples to correct for image quality early on and working with the printer to simplify graphics.
Caps	✓ **Cap size and manufacturing infrastructure:** The smaller cap size required more equipment modifications than changing the pouch film. It is important to plan for these modifications before production lines are constructed. ✓ **Manufacturing adaptability**: All Stonyfield pouch production lines will eventually need to run multiple cap styles. This will enable Stonyfield to migrate other pouch brands to new lightweight caps. Stonyfield recommends designing manufacturing equipment to run different styles, especially when sourcing materials from different suppliers. This reduces the dependency on a single supplier and provides future adaptability for subsequent changes and optimizations.

TEST PACKAGE FOR FUNCTIONALITY AND QUALITY

Piloting an improved pouch design before implementing it at scale helped Stonyfield identify and troubleshoot challenges, as well as refine design, sourcing, and manufacturing processes.

Tips for testing pouch redesign	Key lessons learned on cost
Piloting the new pouch design on a small portion of its product portfolio helped Stonyfield test performance, understand costs, and manage supply chain impacts. **Lessons learned during the pilot phase will help Stonyfield replicate this work** by building capacity for improved pouches in other geographies, with different suppliers, and with other products. Addressing challenges early in the pilot phase can help reduce costs in the long term.	✓ Stonyfield piloted the improved pouch design for the YoBaby brand only, which accounts for a small percentage of total pouch volume. ✓ The incremental cost increase for the new film was significant; however, changing the cap was cost-neutral. ✓ Piloting these improvements has enabled Stonyfield to roll out updated cap designs to another high-selling SKU, further reducing packaging weight.

EMPOWER CROSS-FUNCTIONAL TEAMS TO SUPPORT THIS WORK INTERNALLY

- ❑ Gain internal buy-in for pouch improvements
- ❑ Demonstrate success via pilots and eventually project replication
- ❑ Recognize employees for contributions

EMPOWER CROSS-FUNCTIONAL TEAMS TO SUPPORT THIS WORK INTERNALLY

From the teams executing pouch sustainability improvements to the senior leadership approving the project, engaging employees across the organization can help to implement and replicate this work successfully.

Consider the following when engaging internal teams on packaging improvements:

Gain internal buy-in

- Demonstrate business case and benefits to company, including positive impact on:
  - Packaging sustainability targets
  - Brand reputation
  - Customer and consumer favorability
- Seek external funding via grants or other sources to supplement project implementation costs
- Build success into employee performance criteria to drive this work forward

Demonstrate success

- Test packaging sustainability ideas with internal R&D processes (i.e., plant trials) to demonstrate feasibility
- Pilot new designs in the market to demonstrate consumer acceptability
- Socialize project details with teams across other regions or business units to replicate success

Recognize a job well done

- Recognize teams and employees responsible for executing projects
- Celebrate success at company meetings
- Submit projects for internal and external awards

TRACK SUSTAINABILITY IMPACT

- Gain internal buy-in for pouch improvements
- Demonstrate success via pilots and eventually project replication
- Recognize employees for contributions

TRACK SUSTAINABILITY IMPACT

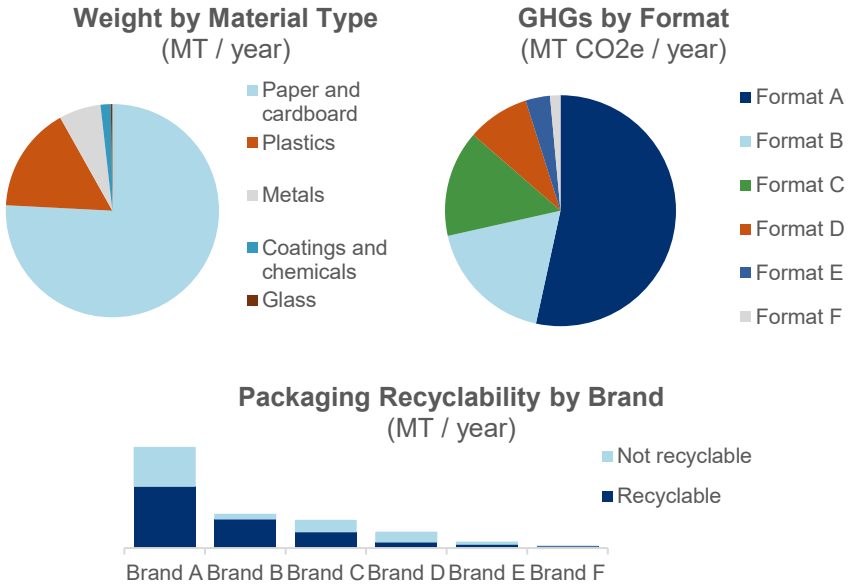
Developing a packaging inventory can help companies understand their packaging footprint, identify hotspots, and pinpoint opportunities for improvement.

A packaging inventory can organize data in a way that helps reveal hotspots (e.g., by format, component, material, brand) and include a view of all packaging by:

- **Weight**
- **Material**
- **Greenhouse gas (GHG) emissions**
- **Recyclability, reusability, or compostability**
- **Recycled or bio-based content (e.g., deforestation-free fiber)**
- **Certifications (e.g., related to responsibly-sourced bio-based materials, PCR, fiber, renewable energy, and others)**

Developing a packaging inventory before initiating sustainability projects can enable progress tracking over time, helping to ensure that efforts are driving improvements and avoiding unintended consequences. This process can be part of an annual corporate GHG inventory or a separate effort to support decision-making.

*Example information gleaned from a packaging inventory**



* Example data, not based on Stonyfield's actual results.

TRACK SUSTAINABILITY IMPACT

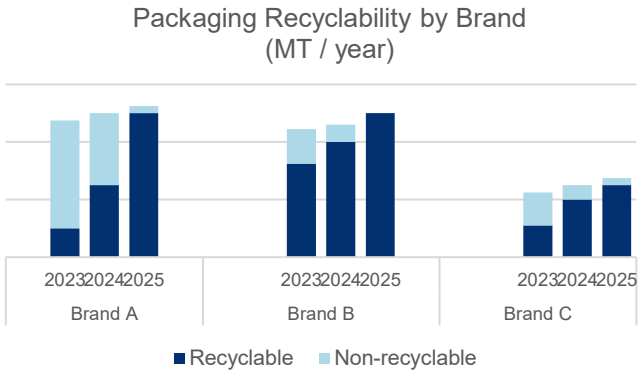
Incorporating packaging changes into an inventory can enable companies to track progress against packaging targets and inform both internal and external reporting.

The FMI Sustainable Packaging Assessment Guide includes key metrics to track packaging improvements over time. Companies can consider metrics that cover packaging sustainability goals and requirements for external reporting, such as EPR regulations and customer data requests. Useful metrics, included in the FMI Guide and others, to demonstrate progress on pouches include:

- **Number (and %) of SKUs and pouches designed to be recyclable**
- **Weight (and %) of virgin plastic reduced (by component, e.g., pouch, cap) due to weight reduction and/or use of recycled content**
- **Weight (and %) of post-consumer recycled content (PCR)**
- **Weight (and %) of sustainably sourced, renewable, bio-based material**
- **Total GHG emissions reduced (and % reduction)**

Working with suppliers to capture primary data, such as weight reduction, renewable energy used in manufacturing, and upstream material GHG data, can help track sustainability progress over time.

Example information gleaned from tracking packaging data over time*



* Example data, not based on Stonyfield's actual results.

COMMUNICATE TO CUSTOMERS AND CONSUMERS

- ❑ Showcase how company work can support customer packaging sustainability initiatives to drive cross-value chain collaboration
- ❑ Educate consumers about packaging improvements to increase acceptance and improve end-of-life outcomes
- ❑ Make accurate, transparent, and verifiable claims to avoid greenwashing and engage with counsel and third parties, such as verifying and certifying organizations, to validate claims

COMMUNICATE TO CUSTOMERS & CONSUMERS

Communicating outcomes of this work to customers can help build capacity and support packaging sustainability efforts across the value chain.

When communicating this work to customers, consider the following:

- Since **many retailers have their own packaging sustainability targets**, they may be interested in what consumer packaged goods brands (CPGs) are doing to support that work.
- **Shared ambition** on sustainable packaging can **create collaboration opportunities** across the value chain.
- Value chain **collaboration and data sharing** can enable all parties **to comply with state-level EPR laws** and claim GHG reductions, creating a win-win for sustainability.
- Communicating with customers about packaging wins can create **other business synergies**, such as relationship building and improved efficiency.

Corporate Packaging Targets

- Many companies (CPGs and retailers) have packaging sustainability targets covering the following areas:
  - **Material use reduction** (i.e., lightweighting, plastic reduction)
  - **Circularity** (i.e., recyclability, reusability, and compostability)
  - **Material choice** (e.g., recycled content)
- A key driver for this is the Ellen MacArthur Foundation's New Plastics Economy initiative and the U.S. Plastics Pact.
  - New Plastics Economy Global Commitment commits companies to eliminate problematic and unnecessary plastics; innovate to ensure reusability, recyclability, or compostability; and circulate to keep plastic items in the economy and out of the environment.

COMMUNICATE TO CUSTOMERS & CONSUMERS

Engaging consumers on packaging sustainability can drive package acceptance and education about end-of-life outcomes.

When communicating this work to consumers, consider the following:

- Consumer acceptance of novel packaging can be an important part of bringing these solutions to market.
- Educating consumers about recyclability can help improve packaging end-of-life outcomes and ensure packages are disposed of properly.
- Adding on-pack labeling, such as disposal instructions or How2Recycle® label, where applicable and in accordance with appropriate authorities, can help explain how to properly dispose of a package.
- On-pack QR codes can also help educate consumers about a package's sustainability attributes and recyclability.
- Making accurate, transparent, and verifiable claims with the support of counsel can avoid greenwashing. The U.S. FTC Green Guides are a resource that can help support this work.

Research shows consumers are interested in sustainable packaging

90% of U.S. consumers surveyed said they are more likely to purchase from a brand or retailer if its packaging is eco-friendly (Source: Shorr)

Globally, 79% of consumers are looking for products in sustainable packaging (Source: Trivium)

U.S. consumers are most concerned about packaging impacts on ocean litter and water pollution (Source: McKinsey)

Recyclability is the most important factor for U.S. consumers when considering packaging sustainability (Source: McKinsey)

COMMUNICATE TO CUSTOMERS & CONSUMERS

Marketing claims can help consumers and other stakeholders understand packaging sustainability improvements, avoid greenwashing, and maximize accuracy, transparency, and verifiability.

Considerations for making consumer-facing claims about packaging sustainability
❑Clarify claims only apply to package, not product
❑Clarify claims apply to at least the major components and most of package by weight
❑Evaluate and maintain proper substantiation with evidence from third party or supplier
❑Quantify improvements when applicable (e.g., % recycled content)
❑Identify and holistically consider alternative materials (both source improvements and potential tradeoffs)
❑Compare improvements to previous iteration or competitor products (e.g., new package uses 30% less material than last package)
❑Specify components included (e.g., only cap contains recycled content)
❑Accurately state recyclability based on U.S. FTC guidance and all applicable laws
❑Do not state reduced packaging if product amount was reduced (i.e., the package-to-product ratio cannot increase)
❑Use reasonable timeframes (e.g., weight reduction applies to the last version of the package, rather than a much earlier version)
❑Ensure all claims are aligned with appropriate authorities (e.g., U.S. FTC guidance and state laws)
❑Consider (where applicable and in accordance with appropriate authorities) incorporating labeling elements (e.g., disposal instructions, How2Recycle® label) to communicate to consumers about packaging disposal
❑Engage with counsel and third-party verification and certification organizations, such as APR and SPC, to support and validate claims

Consult resources for industry best practices on claims:

- U.S. Federal Trade Commission Green Guides
- ISO 14021 Environmental labels and declarations — Self-declared environmental claims

SHARE LEARNINGS SO OTHERS CAN REPLICATE

- ❑ Document and publish learnings
- ❑ Engage across the industry as projects scale and expand

SHARE LEARNINGS SO OTHERS CAN REPLICATE

Sharing technical challenges and lessons learned can help others implement more sustainable packaging at scale, thereby driving increased supply of sustainable materials and demand for recycling infrastructure.

Consider the following when sharing learnings:

Document learnings

- Document insights, including:
  - Problem(s) addressed
  - Process for improving problem(s) and key gaps that still need to be addressed
  - Packaging suppliers and materials used
  - Capital and operational expenditure and savings
  - Regulatory and market implications
  - Successes and challenges faced
  - Lessons learned
  - Stakeholders engaged

Publish learnings

- Publish learnings for others to access via:
  - Press releases
  - Case studies
  - How-to guides
  - Blog posts
  - Virtual or in-person webinars and workshops
  - Social media outreach

Continue to engage

- Take meetings with peers looking to improve their pouch packaging sustainability
- Join and contribute to multi-stakeholder industry groups
- Advocate for policies that favor expansion of packaging sustainability aims (e.g., recyclability, recycled content)
- Continue to share updates as projects scale

CONTINUE TO IMPROVE PACKAGING

- Expand packaging efforts that integrate sustainability attributes at scale and address other packaging hotspots

CONTINUE TO IMPROVE PACKAGING

While Stonyfield's first steps to improving pouch packaging sustainability included redesigning pouches to be a lightweighted, all-PE package, there are many other opportunities to expand packaging sustainability work beyond these areas.

Future work can help:

- Promote potential future pouch recyclability
- Integrate other sustainability attributes
- Address other types of packaging

Non-exhaustive list of potential improvement opportunities

- Extend pouch improvements to all SKUs
- Obtain APR Design® for Recyclability Recognition for improvements
- Support flexible packaging recycling infrastructure
- Explore post-consumer recycled resin and bio-based resins
- Test reusable and refillable options
- Consider plastic replacement while considering overall environmental impact
- Address other packaging hotspots, as supported by EPR regulations

CONTINUE TO IMPROVE PACKAGING

Improving the potential for future pouch recyclability is a critical next step in enhancing pouch sustainability for Stonyfield.

While Stonyfield has worked to develop an all-PE pouch that aims for potential future acceptance in recycling streams, the reality is that the pouch packaging is not yet recyclable, even with sustainability improvements in place.

- The complete pouch design is designed for potential future recycling rather than being tangibly recyclable, meaning that structural film and flexible packaging recycling challenges must be addressed before true recyclability is possible. It is crucial for Stonyfield and other companies that rely on plastic film packaging to build momentum for curbside recycling of flexible plastics.
- While film supplier AMCOR has obtained APR recognition for the all-PE film component of the pouch, the entire package has not yet been recognized by APR. Stonyfield continues to be engaged with its supplier, Cheer Pack, which is working to pursue future APR Design® for Recyclability Recognition for the whole pouch design.
- Generally, rigid components and print amount can influence the performance of post-consumer recycled content.

ENGAGE STAKEHOLDERS THROUGHOUT THE PROCESS

- Engage with stakeholders who help focus and align efforts with best practices, build collective action, and amplify the work at across each phase of the process

ENGAGE STAKEHOLDERS THROUGHOUT THE PROCESS

Engaging with stakeholders throughout this process can help ensure strategies are aligned with best practices, build collective action, and amplify the work.

Pouch design improvements will not drive recyclability without industry-level advances.

Widespread adoption of a PE pouch that is more compatible with the recycling stream (versus the current multi-material laminate) would increase the likelihood of recyclers collecting and accepting it. This would pave the way for the emergence of a viable end market and, as a result, a future where these packages could be recyclable.

Key stakeholder groups working on flexible plastic packaging

The Association of Plastics Recyclers (APR) helps companies across the plastics recycling value chain with design guidance and recognition, recycled content certification and specifications, policy education, and advocacy.

AMERIPEN develops and advocates positions on issues related to the U.S. packaging industry and the environment.

The Recycling Partnership (TRP) Film & Flexibles Coalition is focused on improving material recovery facilities' (MRFs) ability to collect and recycle films and flexible packaging through fostering end market innovation, improving processor tools and technology, and expanding curbside recycling access.

The Flexible Packaging Association (FPA) represents and advocates for the growing U.S. flexible packaging industry and is comprised of manufacturers of flexible packaging and material/equipment suppliers to the flexible packaging industry.

The Sustainable Packaging Coalition (SPC) works across the industry to advance sustainable packaging through education, collaboration, and action. SPC features store drop-off and recovery technologies collaboratives to help companies consider issues related to flexible film packaging.

Ellen MacArthur Foundation's New Plastics Economy initiative and U.S. Plastics Pact commit companies to eliminate problematic and unnecessary plastics; innovate to ensure reusability, recyclability, or compostability; and circulate to keep plastic items in the economy and out of the environment.

GLOSSARY OF ACRONYMS

- **APR:** Association of Plastic Recyclers
- **CO_2e:** carbon dioxide equivalent
- **CPG**: consumer packaged goods
- **EPR:** extended producer responsibility
- **EPS**: expanded polystyrene
- **U.S. FTC:** U.S. Federal Trade Commission
- **GHG:** greenhouse gas
- **HDPE:** high-density polyethylene
- **ISO:** International Organization for Standardization
- **LDPE:** low-density polyethylene
- **LLDPE:** linear low-density polyethylene
- **MDPE:** medium-density polyethylene
- **MT:** metric ton
- **MRF:** materials recovery facility
- **NE DBIC:** Northeast Dairy Business Innovation Center
- **PCR:** post-consumer recycled content
- **PE:** polyethylene
- **PET:** polyethylene terephthalate
- **PETG:** polyethylene terephthalate glycol
- **PP:** polypropylene
- **PS**: polystyrene
- **PVC**: polyvinyl chloride
- **PVDC**: polyvinylidene chloride
- **SBTi**: Science-Based Targets initiative
- **SPC**: Sustainable Packaging Coalition
- **TRP**: The Recycling Partnership