



ZERO NET WASTE OPPORTUNITIES IN PLASTICS

Ashley Hood-Morley
Director, Sustainability

BETTER INDUSTRY. BETTER WORLD.

About Us

The Plastics Industry Association (PLASTICS), formerly SPI, is a purpose-driven organization here to support the entire plastics supply chain.

We believe in working to make our members and the industry more globally competitive. **We believe in advancing sustainability and being a good steward of resources.** We believe in promoting plastics manufacturing.

Since 1937, we've been providing education and advocacy to our members. Our committees and events such as our signature global tradeshow NPE, bring the boldest and brightest innovators, influencers and new technology together to create connections and showcase our industry.

From the technological advancements we enable to the possibilities we create, we're dedicated to helping our members shape the future and make a positive impact every day.

PLASTICS. Better Industry. Better World.





ADVOCACY

PLASTICS advocates for science and fact-based legislation, regulation, codes and standards and other public policies where appropriate that promote our nation's welfare.



OUTREACH

PLASTICS educates the industry, consumers and policy makers about the benefits of plastics as **the** preferred and sustainable material.



GROWTH

PLASTICS connects the entire supply chain, from resin and machinery manufacturers, processors, brand owners, recyclers and consumers who rely on plastics to maintain and enhance their daily lives.



Areas of work



Collection and access
to recycling



Technology Innovation



End market development



Collection and Access



Collection and Access

Funding a number of efforts to drive efficiencies, measure access and expand recovery, including:

- Being an inaugural funder of the Recycling Partnership.
- Funding a number of product categories for the Access to Recycling Study.
- Being an active funder of the Material Recovery for the Future project

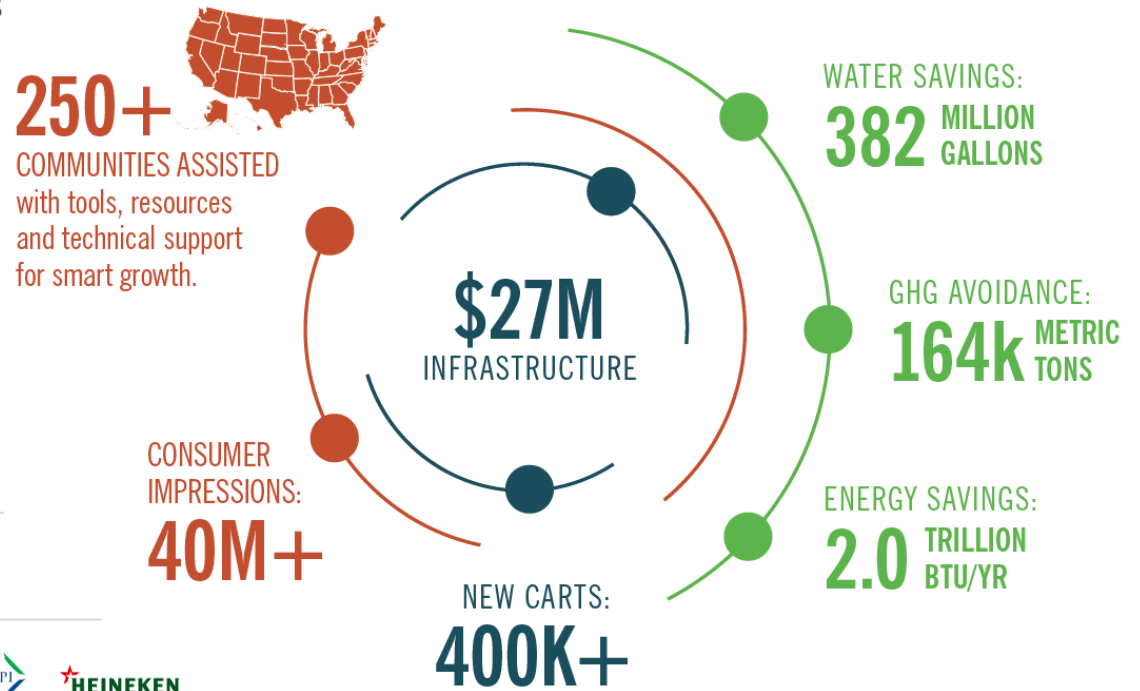
Collaboration is key to addressing these big system changes that need to occur to improve recovery.



The Recycling Partnership

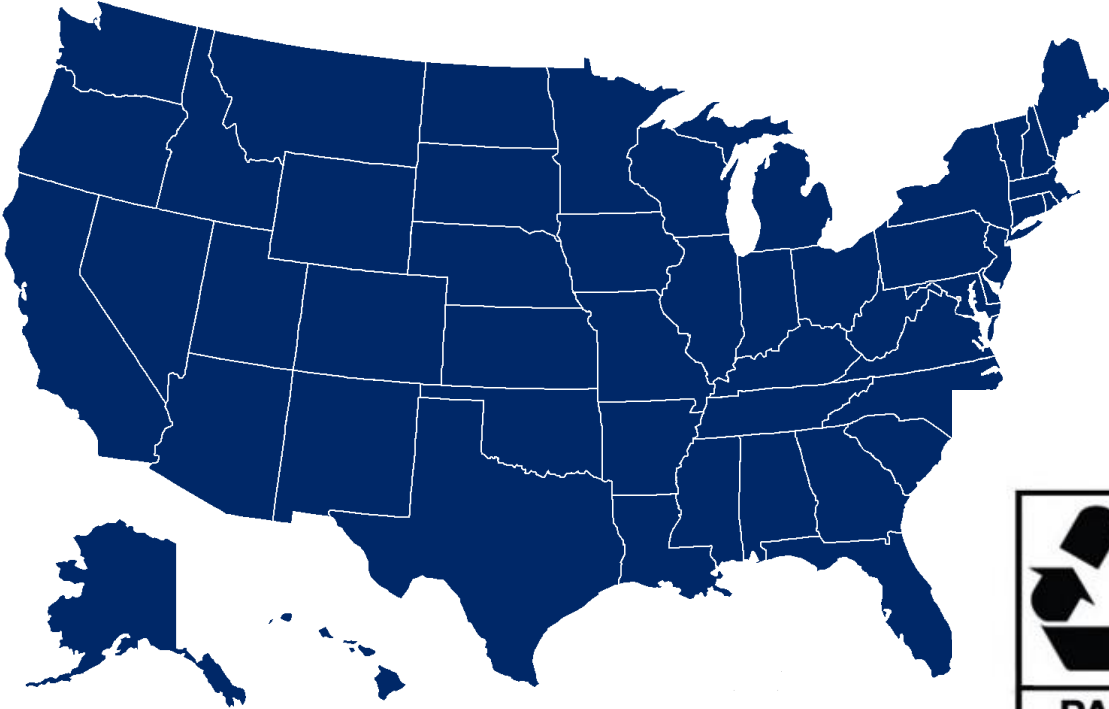
SNAPSHOT

2015 through 2017 in process projects



THE RECYCLING PARTNERSHIP

Access-to-Recycling Study



| | | |
|--|--|--|
|  |  |  |
| PAPER BOX | PLASTIC COVER | PLASTIC TRAY |

Rinse Before Recycling

Check Locally*

how2recycle.info

*Not recycled in all communities



Materials Recovery for the Future



Industry collaborative effort to explore how flexible packaging may eventually be collected through curbside recycling and effectively sorted at the MRF.

- Phase I: Demonstration work is complete.
- Phase II: Scaling up the solution is underway



Technology Innovation



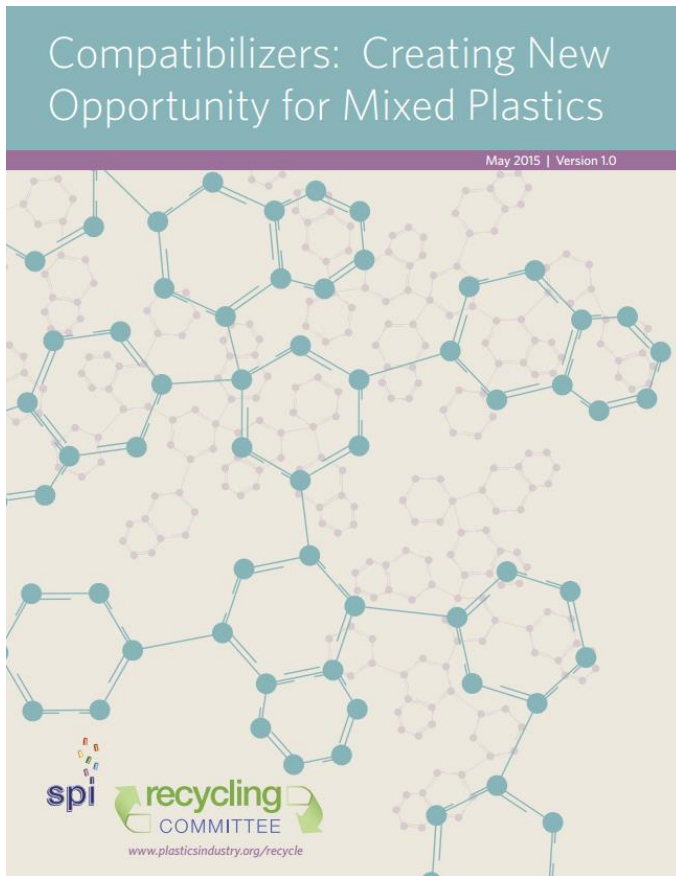
Technology Innovation

PLASTICS continues to challenge the industry think beyond traditional mechanical recycling when we look at new recovery opportunities. We have worked to raise awareness around 2 technologies in particular:

- Compatibilizers for mixed resin streams
- Chemical recycling which breaks plastics back into monomers.



Compatibilizers



The report increases awareness about additives that make otherwise incompatible resins, recyclable as mix.

Compatibilizers can create value for mixed streams of little value or for products made of multiple resins.



Chemical Recycling



Worked with Resinate Materials Group to demonstrate the recovery of polyols from PETG medical device packaging.

Very few mechanical recycling opportunities exist for PETG. We demonstrated a new way to extract value from this stream of medical waste.



End Market Development



End Market Development

Creating end market pull through is key to maintaining a healthy balance in the supply and demand for recycled resins.

PLASTICS has launched a number of efforts to address this imbalance, including:

- End of Life Vehicle (ELV) recycling demonstration project
- New End Market Opportunities for film project
- Guide to Environmentally Preferable Purchasing (EPP) policies.



End of Life Vehicle (ELV) Recycling Demonstration Project



- ❖ Targeting TPO bumpers for recovery (with and without paint)
- ❖ Recover valuable polymers before shredding
- ❖ Working in partnership with the Auto Recyclers Association, and the Canadian Plastics Industry Association
- ❖ Phase I – Materials evaluation, anticipate wrap-up by June.
- ❖ Phase II – End market exploration to begin in July.



New End Market Opportunities (NEMO) for Film



By engaging the entirety of the supply chain we hope to identify new end markets for film.

- Creating testing protocol for different processing methods.
- Evaluating three different streams of material.
- Will work with material suppliers and processors to ID new applications.



Environmentally Preferable Purchasing (EPP) Guide



Goal for the report is to further underscore the value of using recycled content, including:

- Highlight opportunities to use recycled content to get preferential purchasing status.
- Offer a sales and marketing strategy for recyclers to target these product categories





ZERONET

WASTE PROGRAM

Recycling Committee set out to develop a program that would:

- Incentivize companies to drive toward zero net waste in manufacturing,
- Create a way to differentiate and recognize companies for their achievements,
- Offer the guidance and resources that enable companies to be successful in diversion.



Zero Net Waste recognition



Manual offers guidance on:

- Selecting your first site
- Building the business case for pursuing ZNW
- Conducting waste audit
- Identifying recyclers
- Employee education
- Measuring and communicating success
- 3rd party certification options

www.PlasticsIndustry.org/ZNW



the plastics industry
trade association

Qualification and verification

Two-step recognition process

Qualification: Demonstrates you've done your waste characterization and identified the recovery opportunity.

Verification: Demonstrates your programs are in place, you're monitoring your progress and you're making measurable improvements.



Benefits of Being Verified ZNW

- ⬢ Money saving on disposal costs of materials
- ⬢ Potential revenue creator
- ⬢ Increased production efficiencies
- ⬢ Marketing differentiator and demonstrated leadership
- ⬢ Boosting brand image
- ⬢ Improved overall worker happiness and loyalty



Onboarding toolkit

- Once verified companies will receive
 - Certificate
 - Decals and/or plaque (if corporate-wide recognition is achieved)
 - Logo files
 - Sample press release
 - Media tips
 - Sample social media posts
 - Talking points one-pager
 - Recycling flyer template
 - High Resolution banner



Brand Owners & Transportation and Industrial Plastics (TIP) Committee Members include:

- Asahi Kasei
- BD (Becton Dickson)
- Clorox
- Coca-Cola
- Dow Chemical
- Geo-Tech Polymers
- i2Tech
- IAC Group
- John Deere
- Manar
- Oatey
- PepsiCo
- Ravago Manufacturing
- Rubbermaid Newell
- SC Johnson
- Series One
- Steinwall
- Stihl
- Toyota



LET'S RE|DEFINE PLASTICS MANUFACTURING.

Now more than ever, sustainability and recycling solutions aren't limited to plastic packaging. Join us at the Re|focus Summit to re|define the way you think about plastics in manufacturing and more.

PLASTICS  **REFOCUS**
INDUSTRY ASSOCIATION SUSTAINABILITY & RECYCLING SUMMIT

WITH THE SUSTAINABILITY DIVISION OF SPE, PRINCIPAL PROGRAMMING PARTNER



June 27–29, 2017 | Rosen Shingle Creek | Orlando, FL • Learn more at refocussummit.org

Ashley Hood-Morley

Director, Sustainability

Tel. 202.999.2522

ahoodmorley@plasticsindustry.org

