The State of Plastic Recycling

Steps Toward a Circular Economy
ANNUAL REPORT 2021
THE STATE OF PLASTIC RECYCLING
Steps Toward a Circular Economy

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LETTER FROM
OUR GROUP PRESIDENT

Waste. How we deal with it affects all of us. As consumers, we all make buying choices and consume goods. Then, when they’ve outlived their usefulness, we face the challenging task of responsible disposal.

The ultimate goal?
Minimize landfill through a robust reuse and recycling infrastructure.

I’m pleased to report considerable progress. But there’s still so much more we can all do to transition from a linear economy, in which used products become waste to a circular economy. One in which the entire lifecycle of a product is considered with all materials, including plastics from packaging, extracted and repurposed to form the basis of new products.

Achieving this goal takes a unified effort. Packaging manufacturers, consumer goods companies, policymakers, governments, waste management organizations, scientists and consumers must work together to achieve truly sustainable programs and solutions for future generations.

In 2020, to better understand the opportunities and challenges of advancing the circular economy in the food and drinks packaging industry, Hi-Cone released its inaugural State of Plastic Recycling report.

I am excited to report on the findings from our second survey, which provide a view of consumer attitudes and behaviors pertaining to recycling. We again fielded the survey through international research data and analytics group, YouGov.

This year, we expanded the research to capture views on the circular economy and sustainability to better understand:

- The level of understanding of a ‘circular economy’ by the public at large
- The level of public support for recycling
- Whether the public’s participation in recycling matches their intention
- Which groups, organizations and agencies people look to for recycling solutions
- How these groups, organizations and agencies can increase public engagement

The ultimate goal?
Minimize landfill through a robust reuse and recycling infrastructure.
CHAPTER ONE: INTRODUCTION

LETTER FROM OUR GROUP PRESIDENT

Of course, the COVID-19 pandemic has impacted all of us in ways we could have hardly imagined a little more than a year ago. Buying habits have evolved – from where we go, to the goods we buy and the ways that we purchase them.

During this health crisis, more goods than ever before were shipped via commercial delivery services to consumers, generating increased volumes of packaging and recyclable materials. This created additional concerns about the long-term impact of the pandemic on consumer attitudes and actions.

All of us at Hi-Cone remain committed to packaging solutions that contribute to a more circular economy and keep our products out of waste streams and the environment. We continue to reduce the use of virgin plastic in manufacturing and develop partnerships across the supply chain that further our sustainability goals.

By continuing to work closely with our industry partners, brand owners and consumers, we are both confident and committed to achieving this fundamental shift for the benefit of our industry and society as a whole.

See Hi-Cone’s Vision 2025 Sustainability Goals on page 18.

Shawn Welch
Group President,
Packaging Equipment and Consumables Platform

All of us at Hi-Cone remain committed to packaging solutions that contribute to a more circular economy.
The consequences of high consumption rates of natural resources and energy, coupled with low engagement of recycling and sustainability initiatives, are well-documented. They come with dire warnings of long-term damage to our environment and climate.

Across the globe, many stakeholders, including consumers, are striving to stabilize and sustain ecosystems, minimize waste and provide clean energy. Central to success is consumer involvement.

But many factors impact how engaged the general public is likely to be. This includes their understanding of what’s truly at stake, the motivation to be personally involved, and the knowledge and resources available to act.

In 2020, Hi-Cone released the first State of Plastic Recycling report, which revealed that while 75% of adults across the surveyed territories regularly recycle at home, one-third believe 25% or less of what they put in recycling bins is actually recycled.

It discovered that 91% believed recycling plastic is beneficial to the environment and that 80% of those who didn’t recycle all plastic, would do so more frequently if they had more facilities and/or guidance.
A circular economy “information gap” currently exists.

The term “circular economy” in communications may not resonate strongly with the public due to a lack of understanding of the term itself. Less than one-third (31%) of surveyed adults are confident they understand what the term means.

People are looking to key stakeholder groups to make recycling function effectively.

Our respondents identified a key group of stakeholders – packaging manufacturers, consumer goods companies, government and consumers themselves – as responsible for effective plastic recycling. These stakeholder groups are positioned to provide leadership and guidance to build consumer knowledge and influence behavior toward a circular economy.

There is engagement with recycling programs, but greater participation can be achieved.

Among survey participants, 61% indicate that they recycle 75% or more of their plastic waste. However, there are still recycling obstacles to overcome as only 37% recycle all of their plastic waste.

To advance the circular economy initiatives of ending plastic waste and promoting sustainability in manufacturing, production, and consumption, we must build on the foundations already laid through recycling and other programs. Despite the challenges and disruptions of this past year, it’s encouraging that 89% of all respondents indicate that they recycle a portion of their recyclable waste. This number represents an opportunity to build on the commitment to transform the way we think about consumption – and inspire actions needed to minimize our environmental impact.
The term “circular economy” resonates differently with industry and the public, creating a need for education.

The circular economy is widely acknowledged by the industry and within policy settings: the European Commission’s Circular Economy Action Plan sets out initiatives to “make sustainable products, services and business models the norm, and transforms consumption patterns so that no waste is produced in the first place.”

In the United States, this year’s Circular City Week New York aims to “inspire industry professionals across sectors, showcase international pioneers, highlight local change makers and engage students to be the future of circularity.”

As a term, “circular economy” is clearly understood among industry professionals. Acknowledgment of the term’s meaning and its real-world benefits has advanced regional, national and global initiatives focused on this goal. For consumers, raising levels of awareness and acuity through education outreach creates opportunities to generate similar involvement and more active participation.

### LINEAR ECONOMY

Materials in a Linear Economy create waste after use.

- **Take**
- **Make**
- **Use**
- **Dispose**

### CIRCULAR ECONOMY

Materials in a Circular Economy are collected and reused after each use.

- **Collect**
- **Transform**
- **Use**
- **Reuse**
- **Make**
Findings reveal low levels of awareness of what the term "circular economy" means, with one-third (31%) of adults having any level of confidence that they understand it. In addition:

31% of adults having any level of confidence that they understand it

35% of the 18-44 age group demonstrates a higher level of understanding

24% of the 55+ sample shows the least understanding

**REGIONAL FINDINGS**

Geographically, understanding is highest in Spain (39%), followed by Mexico (35%), the United States (33%), and the UK (23%).

At one time, "recycling" was not a well-known word. Educating people about the term and its purpose was a determining factor in the levels of participation seen today. The same is likely true today with the phrase "circular economy." Addressing this issue is vital.
Creating a more universal understanding of the term will help drive public involvement in the circular economy. This is supported by survey numbers that reflect substantial consumer appreciation for the effects of “recycling” plastics as well as data that indicates additional information and education would be beneficial:

Publicly-directed industry messaging, combined with robust education outreach, will help eliminate confusion with the public and broaden involvement. Terms like “circular economy” convey important concepts and equally important objectives, empowering consumers to become more actively engaged.
Stakeholders have the opportunity to engage consumers to drive the circular economy.

Effective and efficient recycling relies on a range of factors, including consumer motivation, understanding what and how to recycle, and facilities and infrastructure to take action.

To be motivated, people must trust in the process. Hindering motivation is the fact that only slightly more than 20% of those in the Hi-Cone survey think 75% or more of material put into recycling bins is actually recycled. Additionally, 79% believe that 50% or less of material is recycled, or simply don’t know how much is recycled.

The Hi-Cone survey asked respondents who should be responsible for effective plastic recycling. Results revealed a key group of stakeholders consisting of the supply chain (product manufacturers, plastic producers), government and consumers themselves. Furthermore, respondents see plastic recycling as a shared responsibility across all stakeholder groups.

In Spain, two-thirds of survey respondents selected product manufacturers, only a shade above consumers themselves, at 64%. Responsibility across different levels of government (local (63%), state (61%) and national (65%)) was evenly spread between 61% and 65%.

In the UK, the highest percentage (64%) cited product manufacturers and plastic producers, while 54% selected local/municipal government and 57% identified national government. This region was second-lowest in singling out the consumer, even though it was a comparatively high 53%.

Mexico stands out in its conviction of the consumer’s role, with 73% citing consumer responsibility. Product manufacturers were a close second (72%).

The United States differs from the other regions. No stakeholder group was identified by more than 46% of respondents, but interestingly this was the only region to rank regional/state government (37%) above national (31%). Local/municipal was favored above both at 41%.

### Which of the following do you think should be responsible for effective plastic recycling?

<table>
<thead>
<tr>
<th>Stakeholder Group</th>
<th>Spain</th>
<th>UK</th>
<th>Mexico</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product manufacturers</td>
<td>43%</td>
<td>64%</td>
<td>72%</td>
<td>43%</td>
</tr>
<tr>
<td>Plastic producers</td>
<td>46%</td>
<td>64%</td>
<td>64%</td>
<td>46%</td>
</tr>
<tr>
<td>The consumer</td>
<td>43%</td>
<td>64%</td>
<td>58%</td>
<td>43%</td>
</tr>
<tr>
<td>Local/municipal government</td>
<td>41%</td>
<td>62%</td>
<td>63%</td>
<td>37%</td>
</tr>
<tr>
<td>National government</td>
<td>31%</td>
<td>63%</td>
<td>64%</td>
<td>31%</td>
</tr>
<tr>
<td>Regional/state government</td>
<td>37%</td>
<td>61%</td>
<td>58%</td>
<td>37%</td>
</tr>
<tr>
<td>Product seller (i.e. the retailer)</td>
<td>27%</td>
<td>44%</td>
<td>42%</td>
<td>27%</td>
</tr>
<tr>
<td>Private recycling companies</td>
<td>34%</td>
<td>45%</td>
<td>49%</td>
<td>34%</td>
</tr>
<tr>
<td>Non-profit groups</td>
<td>14%</td>
<td>19%</td>
<td>24%</td>
<td>14%</td>
</tr>
<tr>
<td>Don't know</td>
<td>12%</td>
<td>4%</td>
<td>2%</td>
<td>12%</td>
</tr>
<tr>
<td>Not applicable - I do not think anyone should be responsible for effective plastic recycling</td>
<td>7%</td>
<td>1%</td>
<td>2%</td>
<td>7%</td>
</tr>
<tr>
<td>Other</td>
<td>4%</td>
<td>2%</td>
<td>2%</td>
<td>4%</td>
</tr>
</tbody>
</table>
CHAPTER THREE
WASTE MANAGEMENT & RECYCLING

Key stakeholders have an opportunity to be recycling ambassadors, providing leadership and guidance to build consumer knowledge and motivate behavior. This year’s State of Plastic Recycling report prompted the several examples seen here that reveal a number of industry opportunities, as indicated by consumer responses to questions asking where key stakeholders might focus their efforts to advance solutions.

More than half
59%

A significant number
46%

A similar amount
43%

of respondents believe more recycling bins are needed in public spaces.
suggest more recycling centers are needed.
indicate that more facilities/services are needed in the home, such as recycling collections/recycling bins.

As part of Hi-Cone’s commitment to produce sustainable products and create circular solutions, our new RingCycles™ carriers are made of +50% recycled content (PCR). We’ve also developed RingRecycleMe™, a free ring carrier recycling program. It addresses current plastic waste crisis through a circular approach, keeping ring carriers in a recycled production loop – and out of landfills and the environment.
Consumers are willing to make more sustainable disposal choices with proper guidance.

Today’s consumers are faced with a myriad of recycling options, many of which involve considerable effort on their part once the products they have purchased reach the disposal stage.

Encouragingly, despite a lagging understanding of the term “circular economy,” survey participants indicate behaviors that align with its aims. More than half (61%) of respondents say they recycle 75% or more of their plastic waste. These are encouraging numbers. Additional involvement is needed, as just 37% recycle all of their plastic waste.

Opportunities for increased participation exist in the United States among those who are yet to join the 73% of American consumers who currently recycle. Across all geographies, the ratio of recycling participants to non-participants is nine-to-one.

Optimizing engagement in the circular economy requires confidence among consumers in the recycling process itself.

59% of respondents stated that they do not know how to recycle some types of plastic packaging, a measure that has changed little since our first report.
More positively, three-quarters (78%) of respondents indicate that more facilities and/or guidance would positively influence them to recycle plastic more frequently. This sizable majority suggests a willingness for increased participation and an opportunity to further engage the public.

Looking ahead, these circumstances indicate consumer willingness to take further action to benefit the environment. For example, in addition to the modest numbers who currently invest time to support recycling by maintaining a compost pile, respondents disclose a tendency for greater participation, with approximately four times as many ‘fairly’ or ‘very’ likely to do so in the future.

SOME OTHER SPECIFIC FINDINGS:

1. Less than one-tenth (9%) of respondents regularly collect and transport materials to a collection facility, while a significantly greater number (44%) indicate they are likely to do so in the future to benefit the environment.

2. More than half (53%) surveyed either currently strip labels from containers to make them more recyclable or would be likely to do so in the future.

3. An encouraging number (52%) already send materials to recycling facilities through the mail or would be likely to do so in the future.

4. The highest percentage of respondents who already take action are maintaining a compost pile at home (11%) with (32%) saying they are likely to do so in the future.

Based on these findings, key stakeholders can capitalize on the public’s willingness to participate in the circular economy when making disposal choices. Through appropriate infrastructure and recycling schemes, there is opportunity to capture high percentages of materials from used goods and return them to production processes where they can begin a second useful ‘life.’
A longer-term impact of COVID-19 on plastic use and disposal may not yet be known. In 2020, COVID-19 touched all aspects of our lives. It affected the way people shopped and the items they purchased. From a sustainability perspective, the impact was potentially far-reaching, demonstrated by:

- An increase in packaging required for the delivery of goods bought online
- Operational limitations of recycling facilities and people staying at home
- Enterprises shifting focus from environmental objectives to cost-containment initiatives

As an adjunct to the findings of our second annual State of Plastic Recycling report, a survey from sustainable-business specialist, Edie, revealed that less than one-third (30%) of respondents said their company was continuing to invest in sustainability and energy-saving technology during the pandemic.iii

A subsequent question is whether a change was evident in consumer behavior and attitudes toward the materials used in the items they bought, and related recycling concerns. It’s understandable that people would gravitate toward pre-packed goods for sanitary reasons, and that their ability and/or inclination to recycle would be affected. Our findings were mixed. While slightly more than one-third (36%) of respondents felt more accepting of plastic packaging for sanitary reasons due to COVID-19, a larger number (43%) were more concerned about disposal, and 38% indicated they were more likely to recycle such packaging due to the pandemic.

### The Hi-Cone State of Plastic Recycling survey was conducted during a time of extraordinary change to people’s lives as a result of the Coronavirus pandemic (late October to early November 2020). Still, an encouraging 89% of respondents across all regions said they recycled at least some of their recyclable waste. This finding signals that recycling remains an important and meaningful part of people’s lives and that opportunities exist to build on this commitment.
As 2021 unfolds, people will begin to re-adjust to life in a post-pandemic world. Society will continue to experience many changes; some minor, others profound. Among them will be the ever-present need for greater action in realizing an efficient and effective circular economy and creating a more sustainable world. By working together, through focused and purposeful application of the recommendations presented in Hi-Cone’s State of Plastic Recycling report, we can all make these meaningful goals a reality.

**EDUCATION**

Publicly-directed industry messaging, combined with robust education outreach, will help eliminate confusion with the public and broaden involvement.

**KEY STAKEHOLDERS**

Key stakeholders have an opportunity to be recycling ambassadors, providing leadership and guidance to build consumer knowledge and motivate behavior.

**PUBLIC PARTICIPATION**

Key stakeholders can capitalize on the public’s willingness to participate in the circular economy when making disposal choices.

Through appropriate infrastructure and recycling schemes, there is opportunity to capture high percentages of materials from used goods and return them to production processes where they can begin a second useful ‘life.’
As a leading supplier of ring carrier multi-packaging systems for global beverage markets and provider of sustainable packaging solutions to major Consumer Packaged Goods (CPG) companies, Hi-Cone’s mission is focused on developing the best packaging possible to satisfy the needs of brand owners and consumers alike, while utilizing the most effective environmentally responsible recycling solutions for plastic.

Hi-Cone is a passionate proponent of the circular economy for plastic. We recognize the integral role of plastic in ensuring that the world’s ever-growing population can safely and securely access food and drink.

We also understand the importance of our role and that of our partner stakeholders in creating opportunities and resources to achieve a circular economy for plastic.

In 2020, to better understand the opportunities and challenges of advancing the circular economy in the food and drinks packaging industry, Hi-Cone released our inaugural State of Recycling Plastic report. It reflected findings contained in a survey of more than five thousand participants, which captured consumer attitudes and behaviors pertaining to recycling.
By releasing the State of Plastic Recycling report annually, Hi-Cone aims to provide a comprehensive, up-to-date resource to support its own sustainability efforts as well as those of the packaging industry. Since that time, we’ve made substantial strides along our own journey to sustainability.

Among them are the formation of a series of cross-industry partnerships, including a recycling partnership with TerraCycle® in the UK, with Avangard Innovative in the US, and the launch of RingCycles™, made from 50% post-consumer recycled (PCR) content.

As we look to the future, Hi-Cone remains committed to playing a vital role faithfully serving the needs of consumers, while creating a sustainable future for generations to come.

Central to these precepts are our 2025 Sustainability Imperatives and key commitments to creating a circular plastics economy.

These initiatives include reducing and virtually eliminating the need for virgin plastic, reducing the amount of virgin plastic used in ring carriers, reuse by processing plastic (ring carriers and other flexible plastic) into recycled plastic instead of going to landfills, and further investing in increased consumer collection and recycling of ring carriers.

Throughout 2021 and in the years ahead, the people of Hi-Cone will continue to build partnerships throughout the supply chain to help educate consumers about the circular economy for plastic and how they can play a meaningful part.

Hi-Cone joins the New Plastics Economy Pledge and partners with TerraCycle®.

Hi-Cone partners with Avangard Innovative and joins the US Plastics Pact. Portfolio shifts to 50% PCR® in Europe, North America and Mexico.

Enhance product portfolio with the development of biodegradable six-pack rings.

Expand sustainable solutions portfolio by providing 100% curbside recyclable solution.

*PCR is Post-Consumer Recycled Resin
Our Vision: Create a path to a more sustainable future for packaging.

**Our Packaging Goals**

**REDUCE VIRGIN PLASTIC USE**

In 2019, we launched RingCycles™, made from +50% post-consumer (PCR) recycled content.

**GOAL: 100%**

100% of Hi-Cone products made from post-consumer recycled content in 2021.

**PROGRESS:**

All Hi-Cone ring carriers will be made from +50% post-consumer recycled (PCR) content in 2021, reducing our use of virgin plastic by half. We have worked with our partners in Europe to transition Hi-Cone ring carriers to RingCycles™. We are now working with our partners in North America to complete the global transition.

**CONTRIBUTE TO A CIRCULAR FUTURE FOR PACKAGING**

As a leader in providing environmentally responsible multi-packaging solutions, we are investing to improve education and increase recycling rates by ensuring recyclability through public systems as well as supporting alternative programs. We are committed to the fundamental shift towards the circular economy.

**GOAL: 2021**

In 2021, we will continue to keep plastics out of the environment and contribute to a circular economy for packaging.

**PROGRESS:**

We launched RingRecycleMe™.com in 2019 in partnership with TerraCycle® in the UK, the first manufacturer-led recycling program.

In 2020, we expanded RingRecycleMe™.com to ensure ring carriers are recyclable globally where #4 LDPE is not widely recycled today.

**DEVELOP NEXT GENERATION SOLUTIONS**

In 2019 Hi-Cone added clarity to our Sustainability Vision to ensure our product portfolio has positive end-of-life outcomes, committing to solutions that are 100% recyclable, compostable or biodegradable by 2025.

**GOAL: 100%**

100% of Hi-Cone Products Recyclable.

**PROGRESS:**

We have set an ambitious goal to be 100% curbside recyclable, biodegradable or compostable by 2025.

**PROGRESS:**

We launched RingRecycleMe™.com in 2019 in partnership with TerraCycle® in the UK, the first manufacturer-led recycling program.

In 2020, we expanded RingRecycleMe™.com to ensure ring carriers are recyclable globally where #4 LDPE is not widely recycled today.

**Shaping a path to a more sustainable tomorrow.**
SURVEY METHODOLOGY

All figures, unless otherwise stated, are from YouGov Plc. Total sample size was 5,862 adults of which 2,338 were in the UK, 1,420 in the US, 1,095 in Spain, and 1,009 in Mexico. Fieldwork was undertaken between October 30 – November 10, 2020. The survey was conducted online. Figures are weighted and representative of all country adults (aged 18+).

REFERENCES


ii. https://www.circularcityweek.com/

Investing in and making a difference in the communities in which we live and work.

For updates on our goals and our work around the world, visit: [hi-cone.com](http://hi-cone.com)