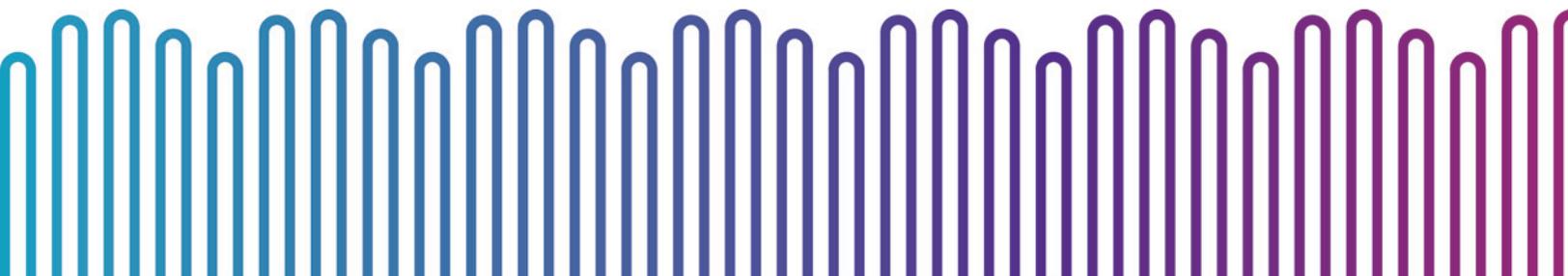


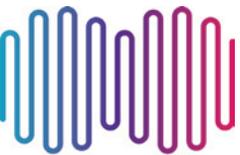


Transparent 2021

Annual *ReSource: Plastic* Progress Report

December 2021





Executive Summary

ABOUT RESOURCE

Nature has long taught us that change is key to survival—and with plastic waste threatening the natural environment on which we depend, change can't wait. World Wildlife Fund (WWF) is working toward a vision of No Plastic in Nature by 2030, and is leading the charge to help reimagine how we source, design, dispose of, and reuse the plastic materials communities most depend upon. Because while plastic can help make our hospitals safer, our food last longer, and our packages more efficient to ship, it has no place in nature.

By inspiring action across their sectors and supply chains, as few as 100 companies have the potential to prevent roughly 50 million metric tons of plastic waste by 2030. *ReSource: Plastic* is tapping into this potential by helping companies translate large-scale plastic commitments into meaningful, measurable impact.

ReSource does this through an innovative measurement framework, the ReSource Footprint Tracker, which identifies the changes that can make the biggest cuts in a company's plastic footprint and establishes a tracking system to measure progress. It also frames a common language for plastic sustainability, providing perspective on opportunities for Member collaboration on large-scale interventions. This big-picture view is designed to elicit data-driven actions aligned to ReSource's theory of

change: eliminating unnecessary plastic, shifting to sustainable inputs for remaining plastic, and doubling global recycling and composting.

As part of the effort to bring data and collaboration to the forefront of corporate action, ReSource publicly reports on Member progress year over year. The *Transparent* report series is ReSource's annual publication that details and tracks progress on Member activities and harnesses this new data to provide recommendations for action—both internal to company supply chains and across wider multi-stakeholder efforts.

TRANSPARENT 2021

Transparent 2021 is the second installment of this series. It presents key findings related to the *ReSource* Members' global plastic footprints in 2019 and 2020, including their use of plastic by polymer type and form, use of recycled content and sustainably sourced biobased content, and the likely waste management pathways for their plastic portfolios. The report includes progress analysis for the Principal Members who reported in the previous annual report, *Transparent 2020*, as well as a baseline analysis of the Members who joined *ReSource* after June 2020. The scope and characteristics of each company's data are outlined within the report.

RESOURCE MEMBERS



In 2020, Amcor reported 2.36 million metric tons of plastic; Colgate-Palmolive reported 289,000 metric tons; Keurig Dr Pepper reported 230,000 metric tons; Kimberly-Clark reported 106,000 metric tons; McDonald's Corporation reported 156,000 metric tons; Procter & Gamble reported 609,000 metric tons; Starbucks reported 121,000 metric tons; and The Coca-Cola Company reported 3.05 million metric tons. The Tracker identifies four waste management pathways for consumer-facing plastic packaging: recycled, landfilled, incinerated, and mismanaged. Based on the results, we identify concrete calls to action for our Members, as well as broader recommendations for the private sector and other stakeholders to address global plastic pollution.

INSIGHTS

The report categorizes opportunities for corporate action using ReSource's three-pronged approach to systems change: eliminating unnecessary plastic, doubling global recycling and composting, and shifting to sustainable inputs for remaining plastic. Overall, the focal areas previously identified in *Transparent 2020* remain largely relevant, but developments in the past year have made some action paths clearer and more concrete, while others remain challenging. *ReSource* will utilize the recommendations and conclusions in this report to inform priority action in the next year and to influence collective action plans.

ELIMINATE UNNECESSARY PLASTIC

Continue the demonstrated progress to reduce, redesign, and test recyclability of small plastics, which include familiar single-use items like utensils, coffee stirrers, and straws. These are a significant category for three of the eight Members. Several Members made significant progress on this issue through elimination and substitution with alternate materials. Because small plastics are often lost from recycling streams, replicating and building on these successful tactics should remain a key priority. For small format plastics that remain necessary, testing through regional plastic recycling organizations is important to ensure their recovery in existing recycling systems.

Reusable systems, also previously identified as a key opportunity, are now primed to scale up in a meaningful way. Despite the setbacks to reusable packaging that were necessary to protect human health during the COVID-19 pandemic (pausing some programs and delaying the launch of others), several ReSource Members introduced new or expanded reuse programs during this period and supported a key collaboration platform, *Consumers Beyond Waste*. Reusable packaging remains a key opportunity and should be pursued as a high priority for action from now through 2030.

SHIFT TO SUSTAINABLE INPUTS FOR REMAINING PLASTIC

Increase use of recycled plastic to address the significant gap between current use and corporate commitments. Among ReSource's five Principal Members, recycled content increased from 7.8% to 9.7% from 2018 to 2020 (recycled content is 7.9% of the total 2020 aggregate results, which include all eight Members and therefore differ from the progress results of the Principal Members). This is encouraging progress, but it also underscores the continued difficulty of sourcing recycled content, as even with this increase, all Members are still far from reaching their sustainable input goals. System-wide progress on this issue has been slow despite concentrated efforts on specific materials and in key markets. Collective action and investment in recycling systems remain critical to reaching these goals, as does addressing the incentive structure that keeps fossil virgin plastic inexpensive and easier to source.

Increase use of responsibly sourced biobased plastic where appropriate. *Responsibly sourced biobased plastic is important to the long-term strategies of several ReSource Members, and has a notable role in applications for which there is not currently a clear path to be able to use recycled content, or where the properties of a novel biobased plastic are advantageous. As with recycled content, the supply of responsibly sourced biobased content will need to increase in order to meet the demand laid out in company commitments in upcoming years. Responsibly sourced biobased content can play an important role in the circular economy, filling in demand for virgin plastic after reduction and reuse strategies have been executed, and when recycled content is not available or cannot be used for the application.*

DOUBLE GLOBAL RECYCLING AND COMPOSTING OF PLASTIC

Eliminating problematic polymers and package components has the potential to improve the recyclability of portfolios. Several ReSource Members pursued this strategy during this period, and these design changes are an important complementary action to collective action on waste systems.

Availability of recycled materials does not match the demand set by companies to meet their sustainability goals. Stimulating the availability of recycled content was identified as a key intervention, and ReSource has therefore collaborated with a number of stakeholders to define opportunities to address this gap. ReSource Members' efforts generally vary with each Member's portfolio, matching the formats, geographies, and polymers that are most relevant to them. Notably, progress has been made in the key geography of the US, where ReSource Members' volumes are highest and landfill rates are also high.

In contrast, efforts to increase composting of plastic have remained minimal, with far less collective action being driven on this topic than in recycling. This is in part due to the reasonable strategic choices of stakeholders, as recycling is relevant to a greater volume of plastic and is a much more established system with potential to scale in many regions. Although it is a more niche issue, composting has the potential to make a significant difference, particularly for applications of plastic use that, by the nature of the product, make recycling challenging, or for regions where composting systems are more viable than

recycling systems. Efforts to increase composting of materials should be pursued where there is evidence that this will be an impactful strategy.

Finally, the following calls to action will determine the progress on all the goals outlined above; their importance cannot be overstated:

Filling critical data gaps and actively sharing information will improve the quality and precision of our understanding of the plastic waste system. There is a clear need for better waste management and fate data at the national level, international coordination on plastic data collection efforts, and agreement on common terminology and best practices. Furthermore, standardization in corporate data collection and reporting is also needed. In the spirit of driving transformational change, in late 2020, the [ReSource Footprint Tracker methodology](#) was released as an open access publication. Data improvement and harmonization will continue to be a priority for refinements to ReSource moving forward.

Improving data confidence and collecting more comprehensive waste management information will allow us to more accurately model the pathways of plastic and to design more effective interventions.

In August 2021, WWF researchers published the article [“Uncertainties in global estimates of plastic waste highlight the need for monitoring frameworks”](#) in *Marine Pollution Bulletin*, highlighting the need for harmonization of waste management data sets. Without this harmonization, it will be difficult to track progress on this issue on a large scale, as activators will face the added challenge of determining whether changes observed over time are the product of real trends or simply of differing approaches to classification of waste management outcomes.

ReSource: Plastic aims to engage 100+ companies through the ReSource Footprint Tracker by 2030 in the effort to reach the ultimate goal of preventing at least 50 million metric tons of plastic waste from entering nature. The ReSource Footprint Tracker provides a common measurement framework, and through increased adoption of this tool, the highest-impact measures can be identified. The results of the ReSource Footprint Tracker provide the necessary starting point for developing solutions whose impact will reverberate across supply chains and industries.

Contents

EXECUTIVE SUMMARY 2

INTRODUCTION 6

 About *ReSource: Plastic* 7

 Members 8

 Supporting Partners & Collaborations 9

MEASURE—RESULTS & PROGRESS REPORT 10

 Methodology 10

 2020 Results 14

 Progress: Principal Members 21

PRINCIPAL MEMBER FOOTPRINTS & PROGRESS 26

NEW MEMBER BASELINES 41

MAXIMIZE—RECOMMENDATIONS FOR ACTION..... 48

 Eliminating Unnecessary Plastic Through Business Model
 Innovation, Reduction, and Substitution..... 48

 Shifting to Sustainable Inputs for Remaining Plastic 49

 Doubling Global Recycling and Composting of Plastic 50

 Data Improvement and Harmonization 51

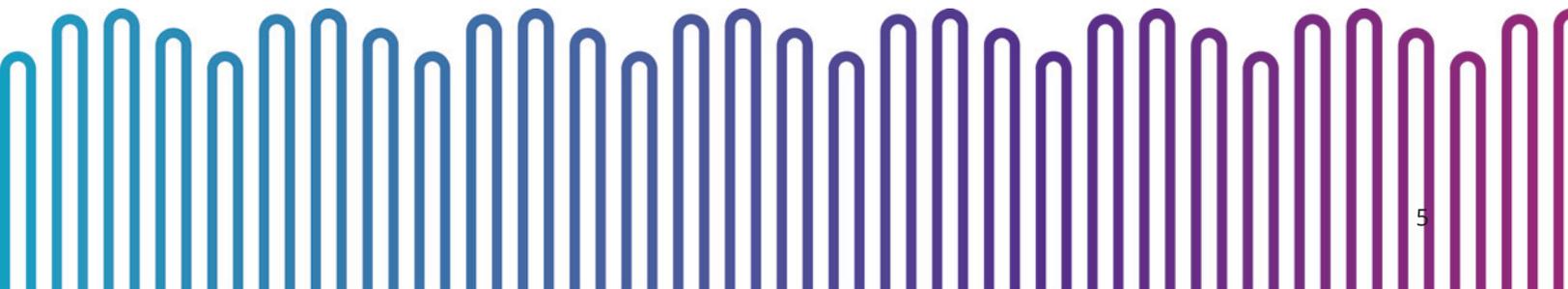
MULTIPLY—COLLABORATING FOR CHANGE..... 52

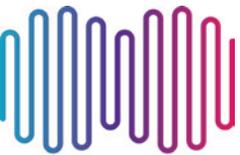
CONCLUSION..... 55

GLOSSARY 56

APPENDIX A—RESULTS TABLES..... 58

APPENDIX B—FORM AND REGION CLASSIFICATIONS..... 67





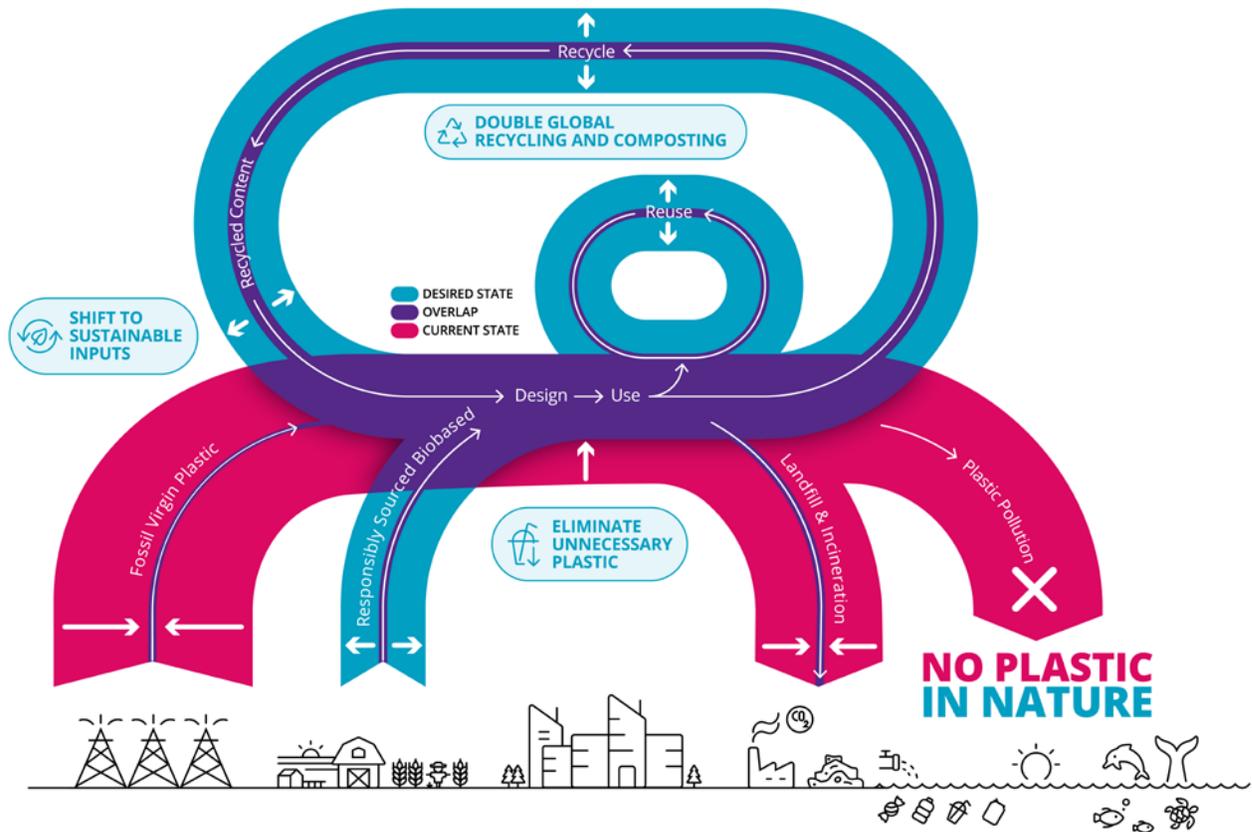
Introduction

Every day, plastic is flowing into nature at an unprecedented rate—a dump truck’s worth every minute goes into our oceans alone. In one year, this plastic waste adds up to 11 million metric tons and impacts over 800 species.^{1,2} And as this crisis spreads to every corner of the globe, World Wildlife Fund (WWF) is leading the charge to reimagine how we source, design, dispose of, and reuse the plastic materials communities most depend upon. Because while plastic can help make our hospitals safer, our food last longer, and our packages more efficient to ship, it has no place in nature.

WWF is fighting for a world with no plastic in nature by 2030, and we’re working toward this vision by tackling the root cause of the crisis: a broken material system. WWF is approaching systems change through three critical pathways: private sector action, good government policy, and public engagement. As part of this strategy, WWF is partnering with companies around the planet to engage private sector action as a key lever for transformation.

Businesses are uniquely positioned to reduce waste through improved sourcing, design, and business model innovation within their own supply chains, as well as serving as a point of influence beyond their supply chain for catalyzing action among other stakeholders, including

FIGURE 1. *ReSource: Plastic Theory of Change.*



governments and the public. While business has been largely responsible for exacerbating plastic pollution, business also plays an indispensable role in mitigating it (see Figure 1).

As few as 100 companies have the potential to prevent roughly 10 million metric tons of the world’s plastic waste per year.³ This potential can only be reached if businesses pursue plastic waste mitigation activities that are designed to maximize the potential for impact, and furthermore, if they strategically contribute to systems change.

About *ReSource: Plastic*

ReSource: Plastic is WWF’s activation hub for companies that are ready to translate plastic commitments to meaningful action but need help building a roadmap to

get there. We close that “how” gap through an innovative measurement framework, the *ReSource* Footprint Tracker, which measures and tracks corporate action against *ReSource*’s three-pronged approach to leveraging business as a catalyst for systems change:

- Eliminating unnecessary plastic through business model innovation, reduction, and substitution
- For plastic that is necessary, shifting from virgin plastic sourcing to sustainable inputs, including recycled content, responsibly sourced biobased content,⁴ and advanced materials⁵
- Doubling global collection, recycling, and composting of plastic so that the plastic going into the system is circulated back

By building a large corporate membership and helping these companies take on data-driven strategies for impact, the goal of *ReSource* is to prevent 50 million metric tons of plastic waste by 2030. To get there, *ReSource* is working with its Member companies to:

MEASURE IMPACT of *ReSource* Members' plastic action through an innovative measurement framework, the *ReSource* Footprint Tracker, which calculates aggregate and individual Member global plastic footprints to track the progress of these activities annually and inform strategy.

MAXIMIZE IMPACT by tracking implementation and progress of these activities through the *ReSource* Footprint Tracker to identify what interventions to reduce waste should be prioritized, scaled, or improved upon.

MULTIPLY IMPACT by catalyzing opportunities for collaboration on large-scale interventions, which is critical to bringing speed and scale to solutions and investments toward systems change.

Members

ReSource was launched in May 2019 with five companies that have demonstrated ambition and sector leadership on plastic waste to serve as Principal Members: Keurig Dr Pepper, McDonald's, Procter & Gamble, Starbucks, and The Coca-Cola Company. Since then, we have welcomed three additional Members: Amcor, Colgate-Palmolive, and Kimberly-Clark. As Members of *ReSource*, the companies are committed to tracking and reporting on their plastic footprint annually as well as taking recommended actions to advance *ReSource's* goals and, importantly, pursuing collaborative efforts with other companies and stakeholders to scale critical interventions to address plastic waste.



Supporting Partners & Collaborations

THOUGHT PARTNERS

Our Thought Partners, the Ellen MacArthur Foundation and Ocean Conservancy, are leaders in the global effort to stop plastic pollution and strengthen the conservation-driven objectives of *ReSource*. They have helped guide the strategy of *ReSource: Plastic*, and their expertise will continue to inform the work of *ReSource* in upcoming years. Furthermore, *ReSource: Plastic* aims to build on and align with their programs and tools, notably the Trash Free Seas Alliance®, led by Ocean Conservancy, and the New Plastics Economy Global Commitment, led by the Ellen MacArthur Foundation and UNEP.



IMPLEMENTATION PARTNERS

Implementation Partners are organizations that are scaling the reach and impact of *ReSource* activities. The American Beverage Association (ABA) became an Implementation Partner in 2019 to align measurement methods and programmatic expertise with its Every Bottle Back initiative, focused on increasing PET recycling in the United States. In 2020, the U.S. Plastics Pact launched, bringing together stakeholders to implement solutions toward a circular economy. The U.S. Plastics Pact joins ABA as a *ReSource* Implementation Partner, utilizing the *ReSource* Footprint Tracker as a measurement tool for annual progress tracking.



OTHER COLLABORATORS

ReSource also collaborates with peer organizations and initiatives to strengthen our methodology and amplify our efforts. A key collaborator in addition to those above is the World Economic Forum's Consumers Beyond Waste initiative, which in 2021 has focused on thought leadership and catalyzing collaborations for scaling reuse systems. We also acknowledge and appreciate the contributions that Wood Mackenzie, The Recycling Partnership, Circulate Capital, and the Plastic Leak Project made to the design of the *ReSource* Footprint Tracker.



Measure Results & Progress Report

Transparent 2021 is the second annual report that details Members' plastic footprints and tracks progress on corporate actions. This publication provides recommendations for action, both internal to company supply chains and across wider multi-stakeholder efforts.

Methodology

The ReSource Footprint Tracker is the mechanism that enables *ReSource* Members to measure, maximize, and multiply the impact of their actions on plastic. The methodology provides insight into how much and what type of plastic companies use, and where that plastic goes once it is disposed of (the waste management outcome).

The big-picture view is designed to elicit data-driven actions aligned to *ReSource's* theory of change: eliminating unnecessary plastic, shifting to sustainable inputs for remaining plastic, and doubling global recycling and composting.

As such, the ReSource Footprint Tracker measures the following variables for each company: the amount of plastic used and/or sold by the company, polymer type and form, the source of the material, and where it goes upon disposal—whether it circulates back into the system or becomes a wasted resource.

Additional information about each component of the Tracker, including survey structure, data sources, assumptions, and limitations, can be found in the publication [ReSource Footprint Tracker Methodology Overview](#), available on WWF's website.

DATA ASSUMPTIONS AND LIMITATIONS

The ReSource Footprint Tracker relies on Members to provide accurate data. WWF works with Members to identify inconsistencies and fill data gaps, but the data submitted by companies for this report was not verified or audited by a third party.

As *ReSource* was developed to bring the disparate variables that contribute to the global plastic waste problem into a single framework, there were inevitable challenges in the data collection process. Companies have had very different systems for tracking plastic throughout their supply chains, and global data on plastic waste management is not consistently collected.

There are three main constraints:

First, the inclusion of secondary packaging and transport packaging varies between Members.⁶

Second, some Member companies were not able to access packaging data for every country they operate in, so in some cases the country-level data was generated by extrapolating local or regional sales data. For these reasons, the reporting scope does vary somewhat between Members, and detailed information about what is included is provided in each company's individual results.

Third, there is limited availability of waste management data for plastics globally, especially data on how the performance of waste management varies across different packaging forms and polymers. As a result, proxy data and assumptions have been used to fill data gaps as necessary. It is also important to

acknowledge the lack of information on composting infrastructure globally today, and therefore the lack of available data on composting rates. Additionally, available data on mismanaged plastic waste is scarce. The model is primarily informed by data from Jambeck et al.,⁷ which assumes a 2% mismanagement rate across many high-income geographies. Although Jambeck et al. provides one of the most comprehensive data sets, on-the-ground mismanagement realities are likely more complex.

METHODOLOGY UPDATES

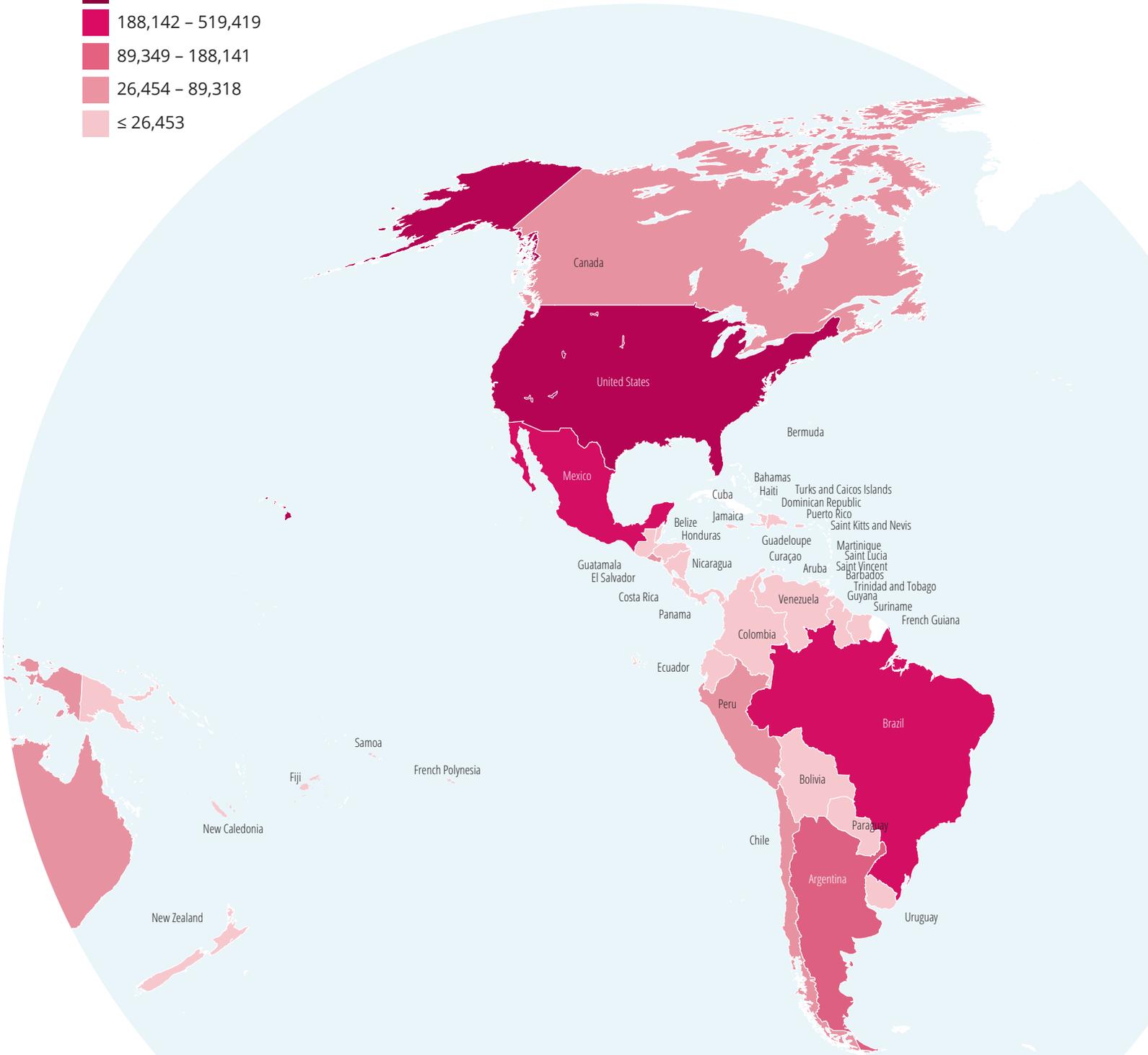
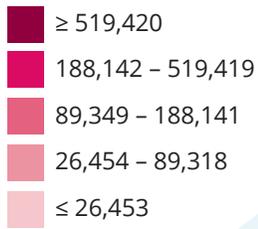
During the past year, several data improvements have been made to the waste management model. WWF began collaborating with Wood Mackenzie, a research and consultancy group specializing in the energy, chemicals, metals, and mining industries, to provide PET bottle recycling rates for 89 countries across the globe. Form- and polymer-specific recycling rates in the United States for PET, HDPE, PVC, LDPE, PP, PS, and PLA bottles and other rigids were also added. These improvements were prioritized since PET bottles are the most common format, the United States is the largest market in ReSource Members' portfolios, and this is where the most reliable data is currently available.

As the changes to the waste management model are a result of new data that wasn't included in the model previously (as opposed to updated data that reflects changes during the past year), we have updated our Members' baseline assessments using the improved model. The biggest impact of this is for companies with large volumes of PET bottles in countries outside of the US and Europe, which previously lacked reliable data. Since the model then defaulted to average recycling rates for all rigid plastics, which are typically significantly lower than the recycling rates for PET bottles, a greater share of these companies' portfolios is now estimated to be recycled. The updated waste management estimates for ReSource Members' aggregate footprint in 2018 are shown in Figure 13.

Other methodology changes relate to how packaging formats are categorized. The ReSource Footprint Tracker now uses the same packaging categories used by the New Plastics Economy Global Commitment to enable better consistency and ease of use for companies reporting through both platforms. While the Tracker still

FIGURE 2. ReSource Members' aggregate reported plastic volumes by country in 2020.

Plastic Volumes (MT)



uses an additional layer of form categories and polymers to further break down the results, the shift to using the Global Commitment packaging categories may have changed how companies categorize some plastics.

Another significant change has to do with how individual components of multi-component packaging are recorded. Some companies previously recorded the various components, such as bottles, caps, and labels, on separate line items in the Tracker. For consistency with the Global Commitment (which doesn't have separate categories for caps or other packaging components) and so that components that are disposed of and/or recycled together are treated as such in the waste management model, we have started encouraging companies to, for instance, report the total weight of the bottles, caps, and labels under the bottle category. For companies affected by this change, there may be a decrease in the closures category and a corresponding increase in either the bottles or other rigids category between 2018 and 2019. Our intention is that the way packaging categories are reported will remain consistent moving forward.

Interpreting the Assessment

When reviewing the findings of the assessment, please consider the data limitations and assumptions as outlined in the previous section. Due to the limited availability of detailed data in several key geographies, in several regions it is not possible at this time to meaningfully distinguish between individual company footprint waste management outcomes and national averages. Therefore, waste management outcomes are reported in the aggregate in this report, and not on an individual basis.

Additionally, this assessment represents a relatively small set of companies, so there are limitations on what can be concluded from the results. While these eight companies are well-known global companies and leaders in their respective industries, they are not necessarily representative of their respective industries globally.

As *ReSource* grows, we will work to enable broader use of the ReSource Footprint Tracker so that the aggregated data produces more generalizable insights across industries.

2020 Results

COMPANY PORTFOLIO AND CONTEXT

ReSource Members reported a total of 4.60 million metric tons (MT) of plastic in 2020 that was sold to retailers and consumers (including business consumers) or discarded in-house. In addition, 2.36 million MT of plastic was sold business-to-business. However, as any plastic sold between *ReSource* Members would be counted in both these figures, that plastic is not reported in aggregate.

Geyer, Jambeck, and Law estimate global annual plastic generation at 302 million MT in 2015—141 million MT of which is from packaging.^{8,9} Taking just the packaging figure for 2015, *ReSource* Members' contribution to annual global plastic packaging (excluding business-to-business volumes) is approximately 3.2%. It should also be noted that The Coca-Cola Company's and Amcor's reported volumes account for a significant portion of the total reported volume, which can skew averages. Waste management outcomes for Members' plastic footprints are primarily determined by in-country management rates and country-specific reported plastic volumes and forms. Thus, understanding the geographic distribution of reported plastic volumes is an important consideration when interpreting the management pathways results (Figure 2).

Results are reported in relation to *ReSource*'s three goals: 1. eliminate unnecessary plastic, 2. shift to sustainable inputs for remaining plastic, and 3. double global recycling and composting of plastic. All percentages are by weight of plastic. Percentages are rounded and may not add up to exactly 100%. Portfolios differed significantly across *ReSource* Members, which significantly influenced the average results presented below. Key observations from the aggregate results include the following:

POLYMER BREAKDOWN

- PET and HDPE bottles are a significant proportion of the plastic footprint for five of the eight Member companies, ranging from 43% to 97% of the reported usage for these five companies.

- Flexible plastic is 22% of the aggregate reported tonnage, ranging from 2.9% to 83% across Member companies. LDPE accounts for 32% of Members' flexible plastic, ranging from 2.9% to 67% across the eight companies' portfolios. Additionally, 56% of flexible plastic is classified as "other," and represents multi-material flexibles composed mostly of PE and PP.
- PP is 9.1% of the aggregate portfolio, but the reported usage varies across Member companies, with some Members reporting up to 61% of their volumes as PP.

FORM CATEGORIES

- Small plastics,¹⁰ which are defined as being smaller than 2 inches in two dimensions,¹¹ account for 0.5% of the aggregate plastic footprint. However, the proportion is higher in some Members' portfolios, with the highest reporting 12% of their volumes as coming from small plastics.
- These small plastics require testing to be considered recyclable, as small plastics are often not incorporated into the recycling stream because of their size.¹²
- 48% of small plastics included in this analysis are composed of PP, and 17% are PS.

SUSTAINABLE INPUTS

- Recycled content is 7.9% of the aggregate portfolio.
- 96% of the reported recycled content is in bottles.
- Responsibly sourced biobased content is 0.2% of the aggregate portfolio.
- 54% of responsibly sourced biobased content is reported in other flexibles, followed by 35% from bottles.
- Biobased content that is not indicated to be responsibly sourced comprises 0.3% of the aggregate portfolio, 94% of which is from flexibles and films.

WASTE MANAGEMENT OUTCOMES

- Lastly, of all the plastic reported, 31% was estimated to go toward recycling, 9.2% toward incineration, and 44% toward landfill, with 16% estimated to be mismanaged.

- According to the Ellen MacArthur Foundation's New Plastics Economy definition,¹³ approximately 70% of the reported aggregate footprint is considered recyclable in practice and at scale.

PRODUCT FORM AND POLYMER COMPOSITION

The Footprint Tracker includes an analysis of product form and polymer composition (Figure 3). An understanding of the distribution of forms and polymers used by Members can help inform mitigation actions including opportunities to redesign, substitute material types, and adopt innovative business models to eliminate unnecessary plastic.

These decisions are complex and often involve trade-offs. For example, consolidating polymer types and formats has the potential to support higher recycling and composting rates by simplifying collection and aggregation,¹⁴ but deciding which polymers and formats should be changed is a complex question, among other issues, including carbon trade-offs between designing for recyclability and designing for light-weighting. For example, life cycle assessments, a common decision-making tool for comparing packaging and product options, very often show that lightweight, flexible plastic is the best performing option on greenhouse gas emissions. However, these assessments generally do not include the impacts of plastic pollution, and therefore provide an incomplete picture and need to be considered alongside other evidence, including landscape scale impacts, when decisions are made.

Consensus around which materials and formats will be invested in sufficiently to be collected and recycled in the future is needed for this avenue to be an effective strategy. Another route to eliminating unnecessary plastics is to redesign the product form to reduce the likelihood that the items will be mismanaged or end up in a landfill. Without a collective plan, this exercise could result in a proliferation of materials and formats instead of a consolidation. Understanding the breakdown of applications and formats across industries is the first step in working toward the reality of eliminating unnecessary plastic.

This analysis does not directly track the prevalence of reusable packaging in total for Members' portfolios, since reusable formats may be made of other materials

FIGURE 3. Polymer breakdown by form category for *ReSource* Members' aggregate portfolio.

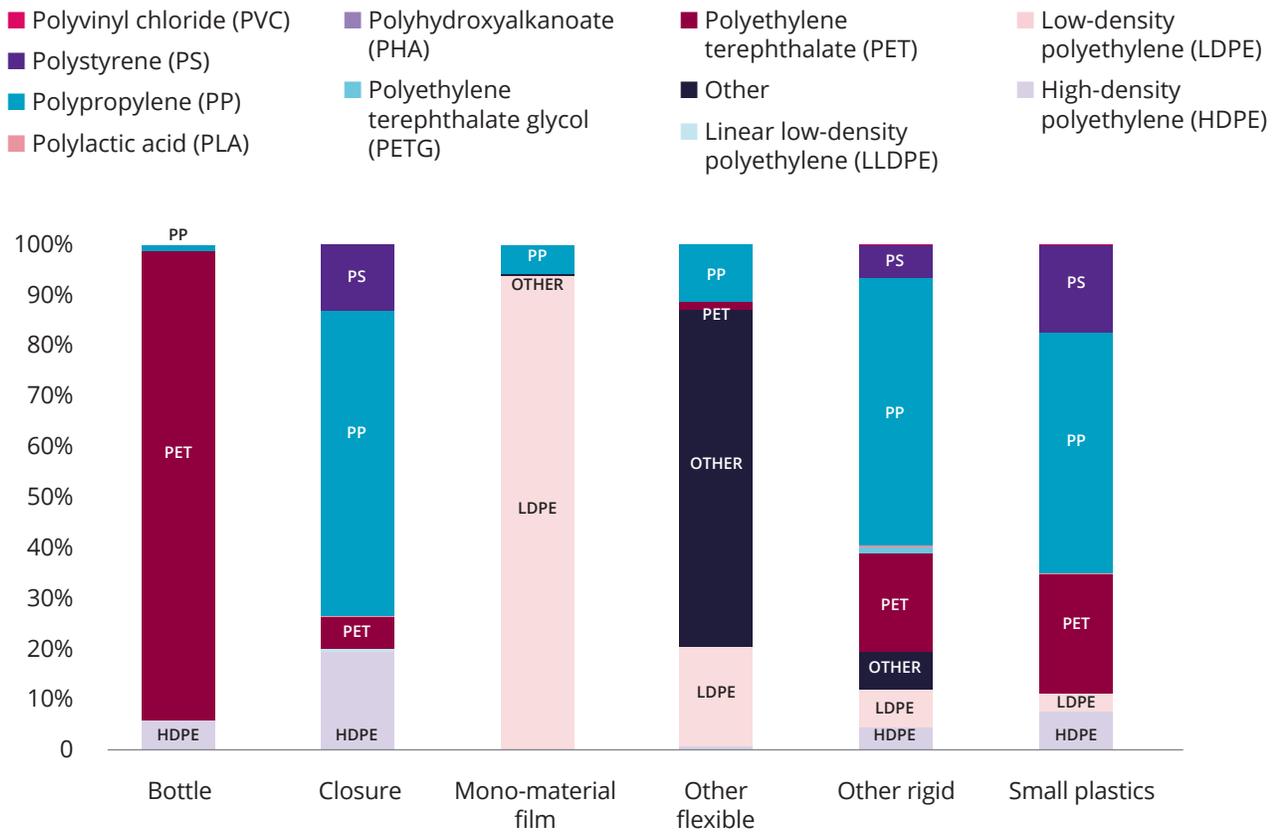


FIGURE 4. Tonnage distribution by form category for *ReSource* Members' aggregate portfolio.

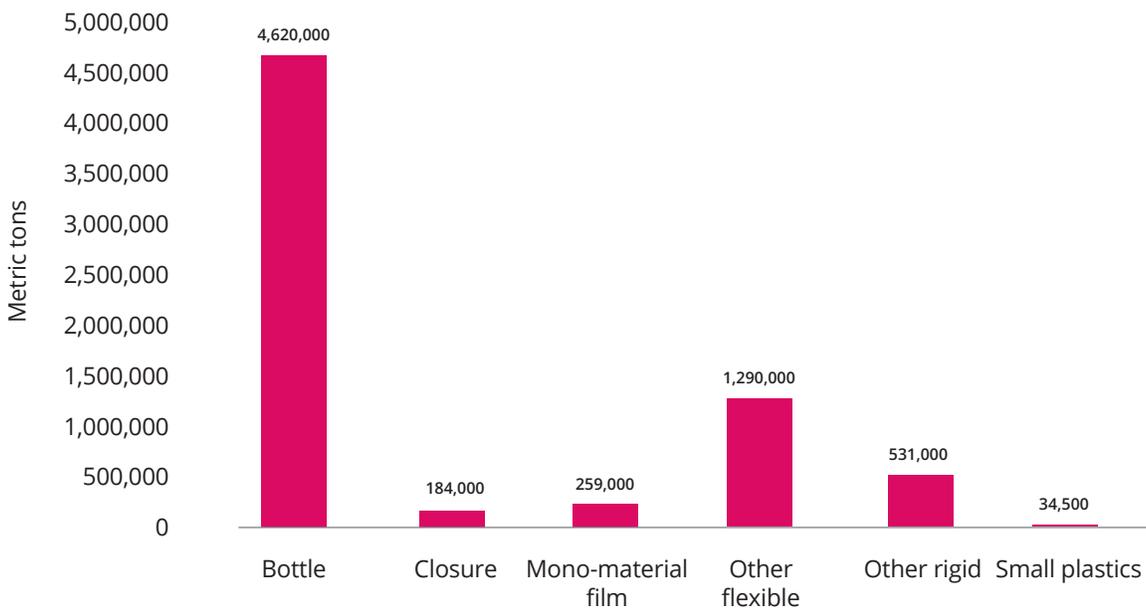
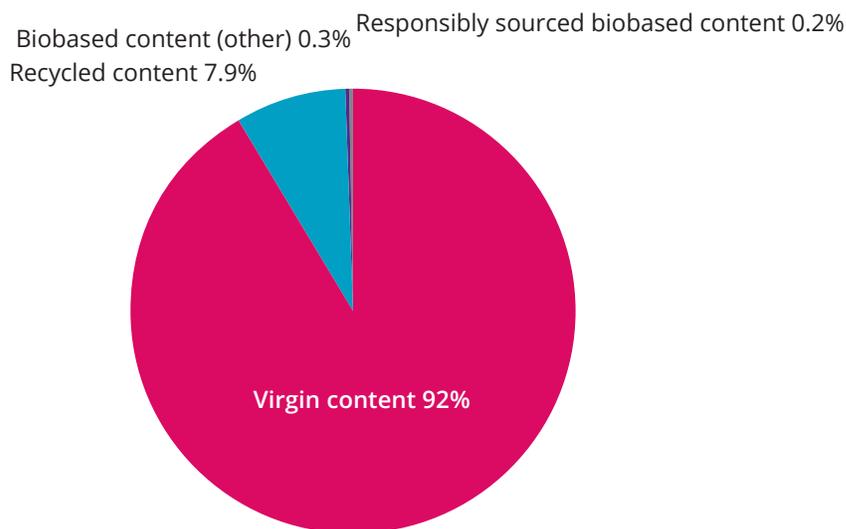


FIGURE 5. Breakdown of recycled, biobased, and virgin content for *ReSource* Members' aggregate portfolio.



beyond plastic. However, several Members indicate growth of reusable formats in their business, as discussed in their individual sections. Reusable plastic formats, as tracked by this assessment, accounted for 1.9% of the Members' reported volumes, ranging from 0% to 10% of an individual company's portfolio. As discussed above, it should be noted that non-plastic reusable and refillable packaging may add to this total. This report focuses exclusively on plastic packaging and not on overall packaging portfolios.

Results suggest that opportunities to eliminate unnecessary plastic vary by company portfolio. For example, PP is a priority for some Members but not others. It is not a significant part of The Coca-Cola Company's portfolio, but is very relevant for Starbucks at 61% of their portfolio. Further, flexibles, which have low recycling rates, vary across Members' portfolios from 2.9% to 83%. PVC is present in several companies' portfolios, but no larger than 0.1% of an individual portfolio. PVC is exclusively present in other rigids and small plastics as gift cards, blister packs, toys, and specialty containers (Figure 3).

Bottles comprise 67% of the total portfolio (Figure 4) and are predominantly PET. Other flexibles are 19% of the

aggregate portfolio, with 67% of other flexibles composed of the "other" multi-material mix described above.

USE OF SUSTAINABLE INPUTS

After taking action to eliminate what is unnecessary, shifting to sustainable inputs for remaining plastic can improve environmental performance. Sustainable inputs include recycled content or responsibly sourced biobased content¹⁵ and other innovative materials in the future. In this report, recycled content only refers to post-consumer recycled content, unless otherwise specified. Sustainable inputs represent between 0.6% and 11% of total plastic use across the Member companies. Recycled content is the most prevalent sustainable input and accounts for 7.9% of the aggregate reported volume (Figure 5). Post-consumer recycled content is primarily used in bottles and other rigids. Responsibly sourced biobased content represents 0.2% of input materials and is used in mono-material film, other flexibles, and bottles. Other types of biobased content are used in 0.3% of the portfolio; they are used in all reported form categories but are predominantly reported in mono-material film (52% of biobased content reported).

WASTE MANAGEMENT PATHWAYS

The waste management pathways are based on in-country management rates and Members' respective plastic footprints in a given country. The estimated recycling rate of *ReSource* Members' aggregate plastic footprint is higher, at 31%, than the global estimate of plastic collected for recycling (14%) reported in Pew and SYSTEMIQ's *Breaking the Plastic Wave* report (Figure 6).¹⁶ As the plastic management outcomes are estimated based on country-level reported plastic volumes and country-specific waste management (Table 1), the *ReSource* Principal Members' high landfill rates compared to the global estimate can primarily be explained by high landfill estimates in the United States (72%), the country where all the *ReSource* Principal Members have their highest reported volumes of plastics. This concentration in the United States and the large proportion of PET bottles can also explain the comparably high recycling rates—the United States has a PET bottle recycling rate of 29%, compared to its all-plastics recycling rate of 8.4%.¹⁷

FIGURE 6. Estimated waste management outcomes for *ReSource* Members' 2020 aggregate plastic footprint (including eight Members' results), compared to global plastic flow estimates in Pew and SYSTEMIQ's *Breaking the Plastic Wave* report, including material collected for recycling.¹⁸

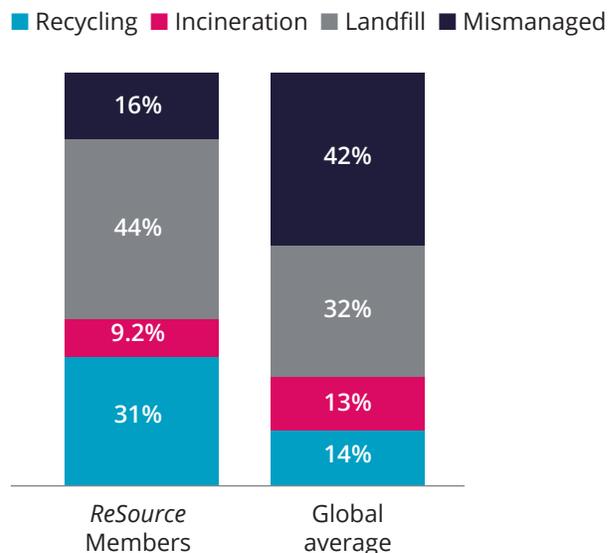


TABLE 1. Estimated waste management breakdown by region for *ReSource* Members' 2020 aggregate plastic footprint.^{19,20,21}

REGION	RECYCLING RATE	INCINERATION RATE	LANDFILL RATE	MISMANAGED RATE
East Asia & Pacific	38%	7.9%	16%	38%
Europe & Central Asia	37%	19%	35%	9.2%
Latin America & Caribbean	36%	0.05%	52%	11%
Middle East & North Africa	23%	0.3%	38%	39%
North America	21%	13%	65%	1.7%
South Asia	56%	0.01%	4.1%	40%
Sub-Saharan Africa	32%	0%	18%	49%

Waste management pathways were further calculated with the distinction between rigids and flexible plastics (Figure 7). The differences in recycling rates between rigids (40%) and flexibles (2.6%) reflects the trend that rigid plastics, and particularly bottles, which account for 67% of the aggregate portfolio of *ReSource* Members, are recycled at a higher rate than flexible plastics. Flexibles are also landfilled at higher rates than rigids (57% for flexibles; 40% for rigids). Regardless of plastic type, landfilling is the predominant waste management outcome in the results due to the market concentration of *ReSource* Members in North America, where landfilling rates are notably high.

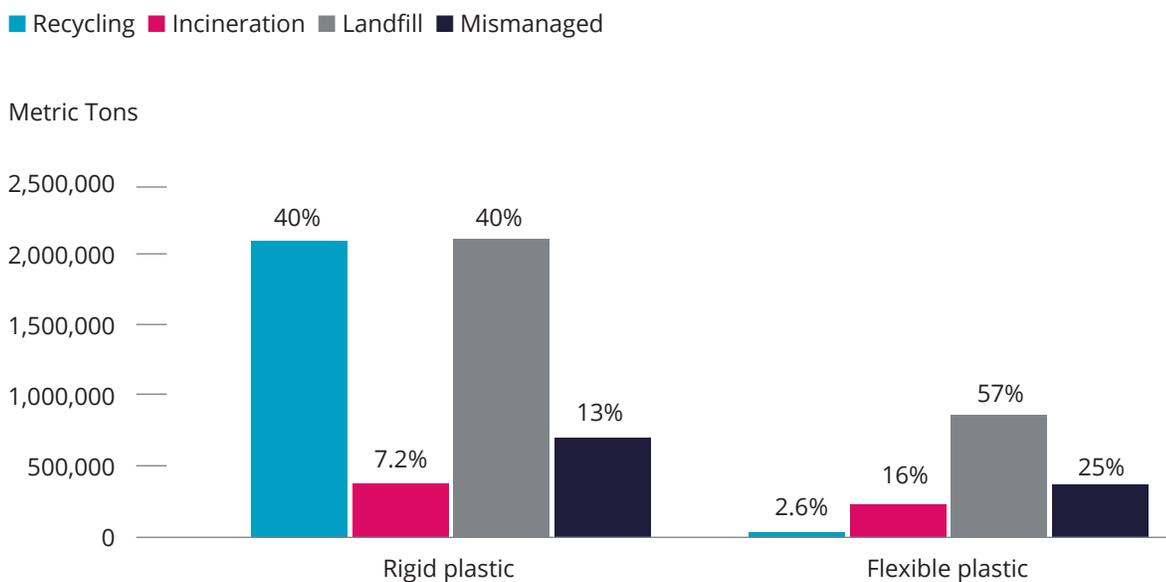
A limitation of the current model is that mismanagement rates are assumed to be the same for rigid and flexible plastics. There is evidence, as indicated in Pew and SYSTEMIQ's *Breaking the Plastic Wave report*,²² that flexible plastics are more likely than rigid plastics to leak into the environment. However, as flexibles are assumed to have a higher transfer rate from dump sites to the environment than do rigids, it is unclear to what extent flexibles are more likely to be mismanaged in the first place. This has been identified as a desired area of exploration for future versions of the model.

Regional Breakdown

The likely waste management pathways for plastics by region are aggregated based on *ReSource* Members' reported plastic volumes by country within set regions (Figure 8 and outlined in Appendix B). These regional waste management estimates are dependent on the geographical distribution of sales and proportions of various plastic forms within the *ReSource* aggregate plastic footprint and thus are not meant to be representative of the end-life of plastics across all sectors.

Regionally, *ReSource* Members' aggregate plastic footprint is concentrated in North America, with lesser but still significant concentrations in East Asia & Pacific (where mismanagement rates are high), Latin America & the Caribbean (where landfill rates are high), and Europe & Central Asia (where recycling rates are highest globally) (Figure 8). The high landfill rates and high reported tonnage volumes in North America (65% of regional tonnage) contribute to the higher aggregate landfill rate of *ReSource* Members (44%), compared to the global estimate of 32% (Figure 6). Further, East Asia & Pacific is second in terms of total tonnage and has the highest reported mismanagement tonnage (536,000 metric tons). Contributing to this is a large footprint in China,

FIGURE 7. Waste management outcomes for rigid versus flexible plastics for *ReSource* Members.



where the mismanagement rate for all plastics is 76%. The recycling rates across the regions range from 20% in North America to 56% in South Asia. Globally, The Coca-Cola Company reports in more geographies than other Member companies, and as their portfolio is both high tonnage and predominantly highly recyclable bottles, the proportion of bottles—and thus recycling tonnages—is higher in less concentrated geographies than in the United States and North America, where other formats have lower recyclability. Thus, while South Asia, East Asia & Pacific, Latin America & the Caribbean, and Sub-Saharan Africa have notably low recycling rates across all plastics, their reported recycling rates for the *ReSource* Members' aggregate portfolio are 56%, 38%, 36%, and 32%, respectively, compared to 21% in North America.

Country Spotlights

Tracker results help identify opportunities in key geographies to reduce mismanaged plastics and promote collection and recycling. Examining the five

countries where Members had the highest volumes for recycling, incineration, landfill, and mismanagement can help prioritize geographies for mitigation and intervention (Figure 9). As mentioned previously, changes in the model have affected waste management outcomes from the previously submitted 2018 data. Thus, changes in priority countries can partly be attributed to more comprehensive and updated rates, which reflect on-the-ground realities more accurately than the previous model. In terms of landfilled tonnages, the United States, Brazil, and Mexico continue to be the highest-ranked countries, while Brazil and Mexico switched ranking positions from last year. China, India, and the Philippines continue to be in the top five countries for mismanaged tonnages; but notably, Thailand, which previously was not included in the top five for mismanaged tonnages, now ranks second behind China. Additionally, Nigeria is the first African country to appear in the top five for any of the waste management outcomes.

FIGURE 8. Estimated waste management outcomes by region for *ReSource* Members.

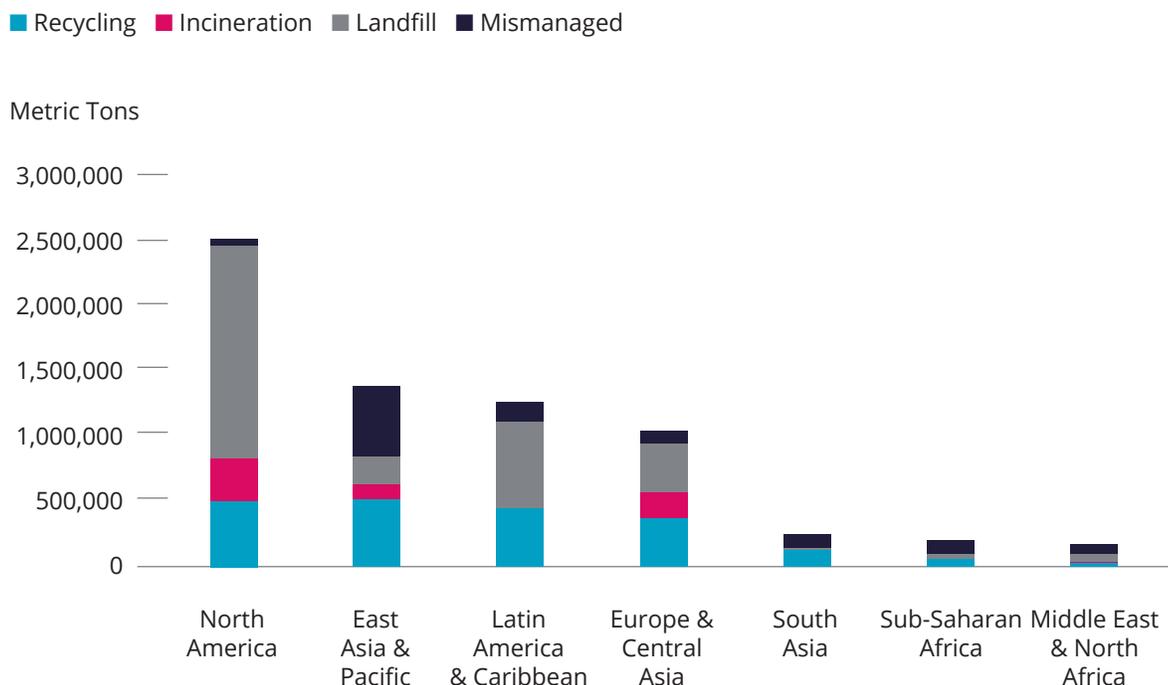
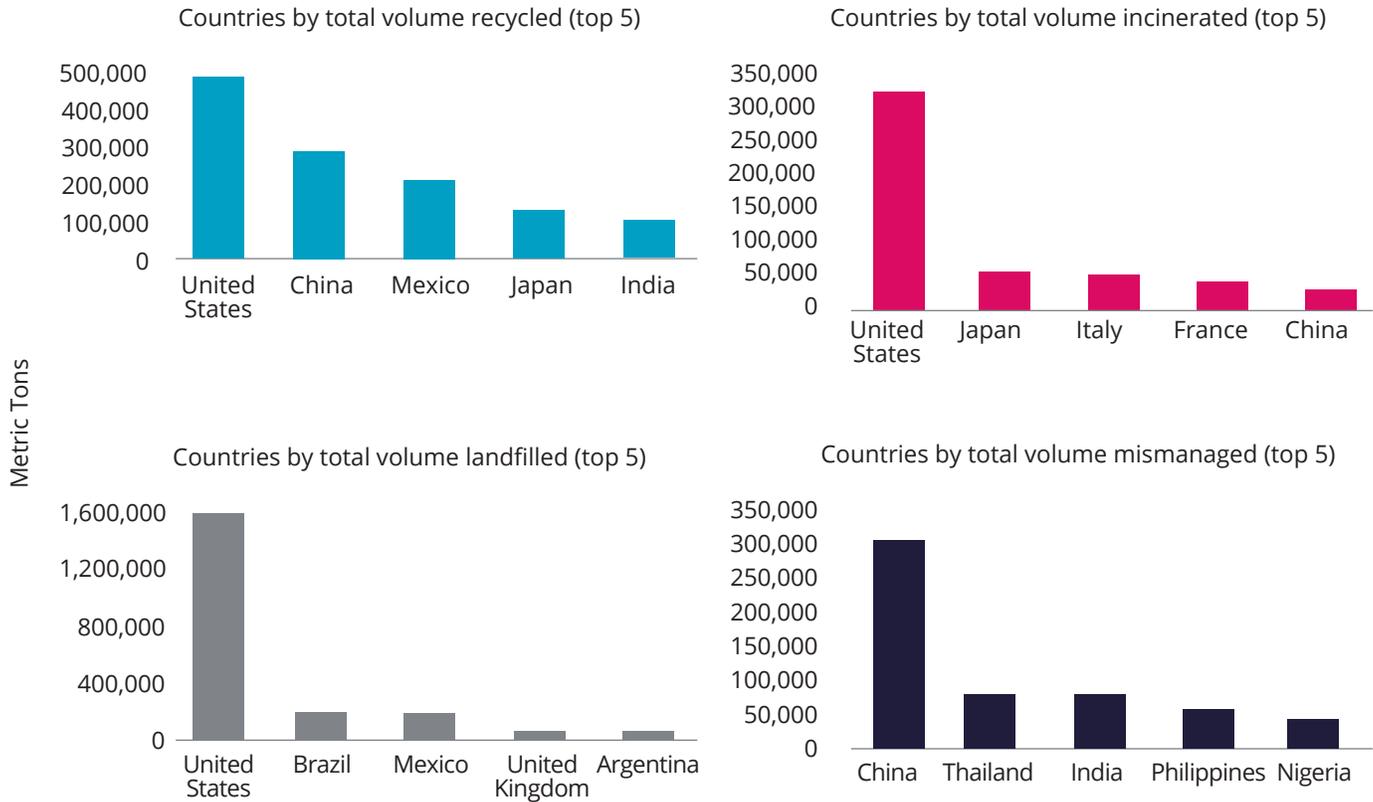


FIGURE 9. *ReSource* Members' countries by total estimated volume (top five) for each waste management outcome.



Progress: Principal Members

In 2020, five Principal Members piloted the ReSource Footprint Tracker, reporting their 2018 footprints in *Transparent 2020*. In *Transparent 2021*, the reporting time frame was adjusted so that both 2019 and 2020 footprints are reported. Procter & Gamble (P&G)'s footprint reported in *Transparent 2020* is based on their fiscal year and aligns more closely with the 2019 calendar year. Therefore, Procter & Gamble's progress results are reported for 2019 and 2020 only, and 2018 footprints are reported for four of the five Principal Members.

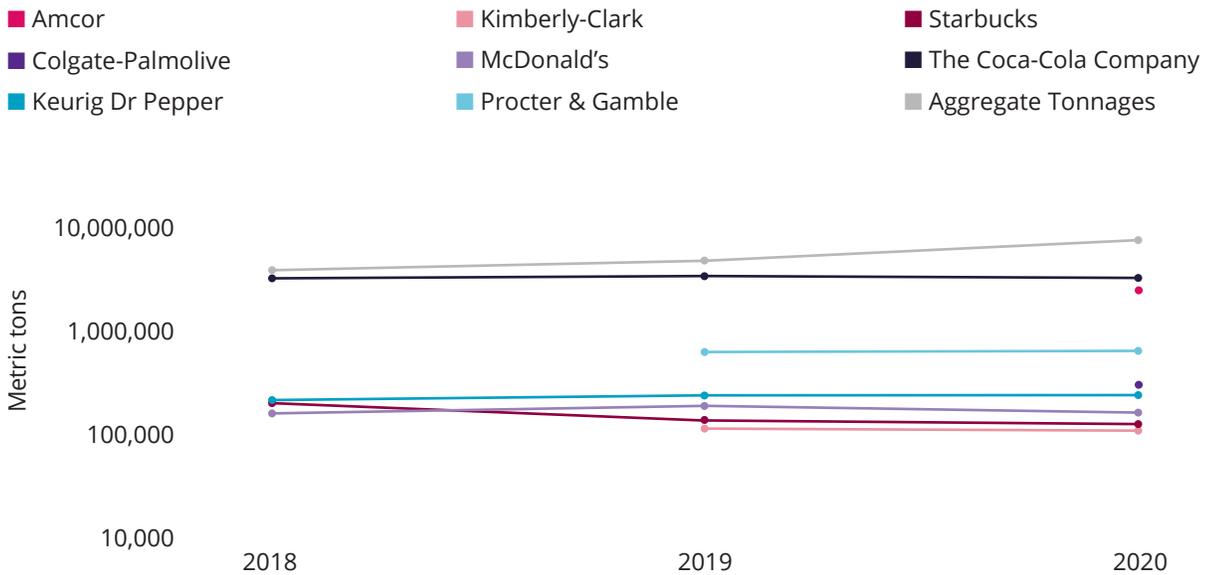
The following section outlines the year-over-year changes for the five Principal Members: Keurig Dr Pepper, McDonald's Corporation, P&G, Starbucks, and The Coca-Cola Company. All percentages are by weight of plastic. Portfolios differed significantly across *ReSource*

Members, which significantly influenced the average results presented below.

It is not possible to discuss the implications of the results presented below without acknowledging the effects of the COVID-19 pandemic. In 2020, COVID-19 disrupted supply chains and changed consumption patterns. It is difficult to parse out the exact effects this has had on the plastic footprints of *ReSource* Members in 2020, but there is evidence that it contributed to a decrease in volumes.

From 2018 to 2019, total tonnages reported increased for the four Principal Members that have 2018 data available, but then the tonnages decreased from 2019 to 2020 for the Principal Members in aggregate (Figure 10). While actions were taken in this time frame to decrease overall plastic use, it is difficult to distinguish at the aggregate level changes due to the influence of COVID-19 from changes due to material progress.

FIGURE 10. Total tonnages reported for 2018, 2019, and 2020 reporting periods. Please note logarithmic scale on the Y axis.



Polymer Composition and Sustainable Inputs

The polymer distribution across the Principal Members' portfolios has also changed over the three reporting periods (Figure 11).

- Paralleling the trend in flexibles, LDPE increased from 1.5% in 2018 to 7.8% in 2019, and then decreased again to 5.3% in 2020.
- The proportion of PET decreased from 82% in 2018 to 79% in 2019 and 2020.
- Polypropylene increased from 269,000 in 2018 (7.5%) to 306,000 in 2019 (7.0%) to 358,000 metric tons in 2020 (8.6%).
- Polystyrene tonnages also decreased over the years from 83,600 in 2018 (2.3%) to 64,600 in 2019 (1.5%) to 31,600 in 2020 (0.8%).

Some of the changes from 2018 to 2019 are due to the changing aggregate portfolio with the reporting of P&G beginning in 2019. However, many changes are due to Members' efforts to increase the recyclability of their portfolios.

Over the reporting periods, the percentage of sustainable inputs reported in the portfolios of the Principal Members also changed (Figure 12).

- Notably, recycled content changed from 7.8% in 2018 (279,000 metric tons) to 7.7% in 2019 (343,000 metric tons), before increasing to 9.7% in 2020 (403,000 metric tons).
- Responsibly sourced biobased content went from 1.3% (45,200 metric tons) in 2018 to 1.3% (59,600 metric tons) in 2019 and then decreased to 0.3% (11,000 metric tons) in 2020.
- Biobased content that is not indicated to be responsibly sourced also fluctuated from 5,900 metric tons (0.2%) in 2018 to 0 in 2019 and then to 2,600 metric tons (0.06%) in 2020.

Waste Management Pathways

Waste management pathways for the Principal Members have remained relatively consistent over the three reporting periods. From 2018 to 2020, there is a decrease in the estimated recycling rate from 44% to 41% as a greater variety of polymers and forms were added to the aggregate portfolio, slightly reducing the

FIGURE 11. Tonnes by polymer reported by Principal Members for 2018, 2019, and 2020 reporting periods. As P&G's baseline data is reported for 2019, the other four Principal Members are the exclusive contributors to the 2018 aggregate data. Please note logarithmic scale on Y axis.

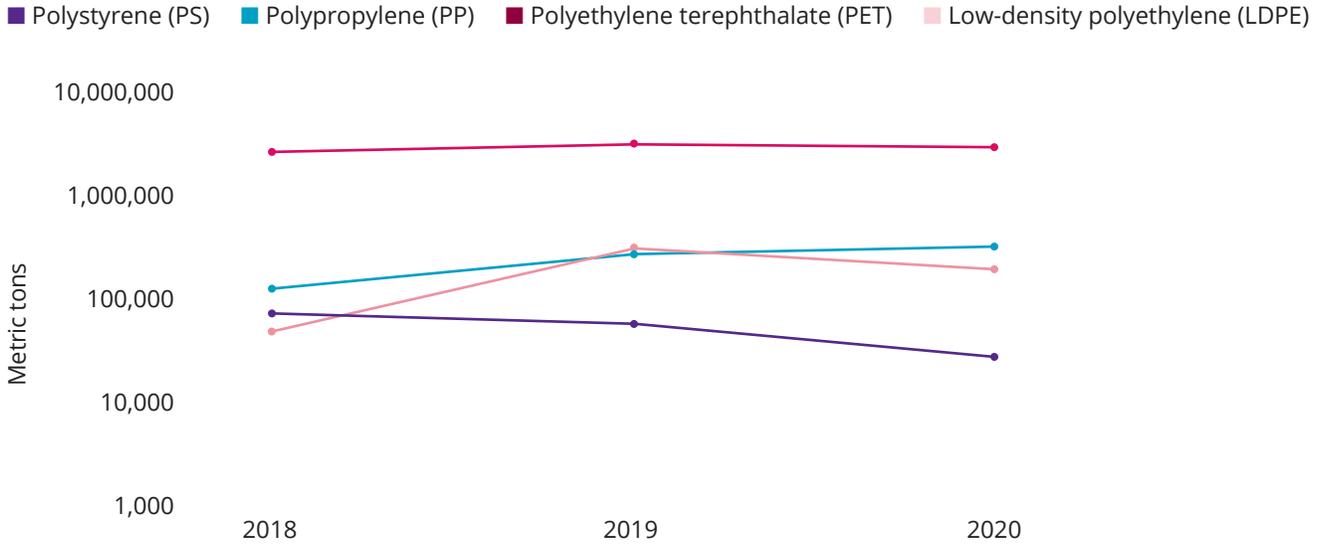
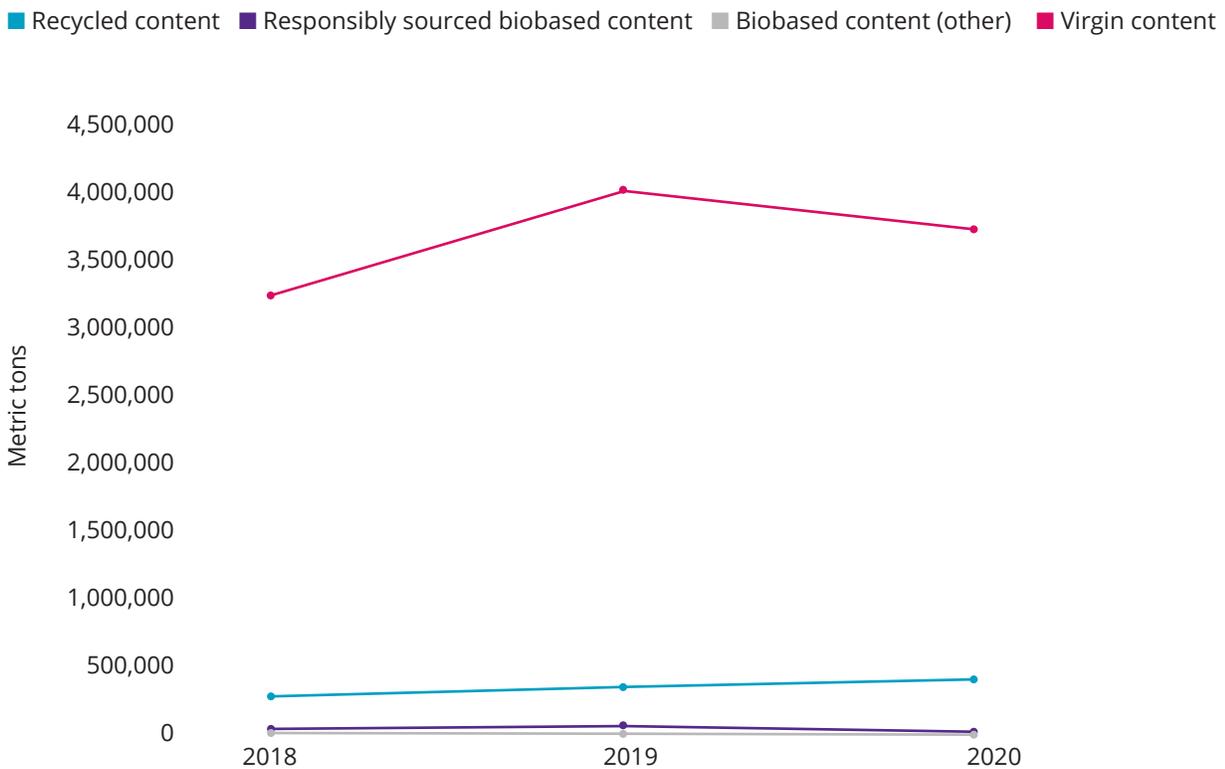
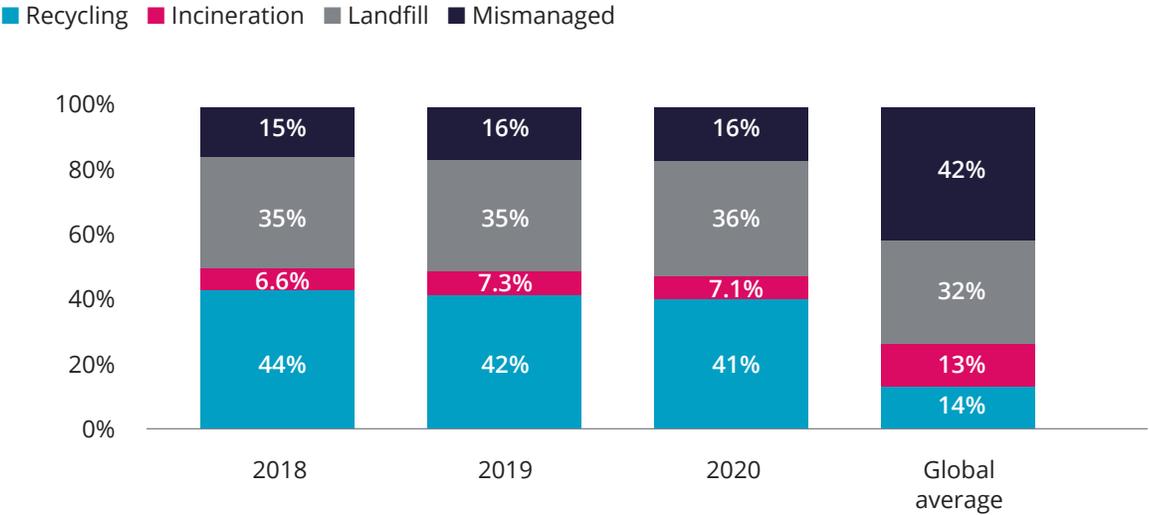


FIGURE 12. Tonnes by input reported by Principal Members for 2018, 2019, and 2020 reporting periods. As P&G's baseline data is reported for 2019, the other four Principal Members are the exclusive contributors to the 2018 aggregate data.



proportion of PET bottles. Other slight shifts are driven by changes in portfolio/tonnage distribution. Additionally, model differences for PET recycling rates globally across the three reporting periods can contribute to additional slight changes. This result is expected, as there have not been significant changes in waste management systems globally since 2018, and any shifts that have occurred are not yet reflected in the available data.

FIGURE 13. Tonnes by input reported by Principal Members for 2018, 2019, and 2020 reporting periods. As P&G’s baseline data is reported for 2019, the other four Principal Members are the exclusive contributors to the 2018 aggregate data. Individual numbers are rounded, so they may not add up to 100%.





Principal Member Footprints & Progress

The following sections explore individual ReSource Members' footprints; please see Appendix A for summary tables.

KEURIG DR PEPPER OVERVIEW AND GOALS

KDP believes that packaging waste—particularly plastic waste—is a growing global challenge. The company's vision is a circular future in which its packaging is recycled and repurposed to remain in use and out of the environment. To accelerate this shift, KDP is focused on smart design, which involves the absolute reduction of materials used and the ability to recycle or compost those materials after use. KDP is also increasingly incorporating recycled content into its products and packaging to further reduce the company's virgin plastic footprint, and is investing in recycling infrastructure to ensure valuable recycled materials are more readily available.

Keurig Dr Pepper achieved its long-standing goal of transitioning 100% of its K-Cup® pods to recyclable polypropylene plastic in 2020 and continues to work on the following 2025 sustainable packaging goals:

- 1. 100% of KDP packaging to be recyclable or compostable*
- 2. 30% post-consumer recycled content used across the KDP packaging portfolio*
- 3. 25% post-consumer recycled content used across the KDP plastic packaging portfolio*
- 4. 20% virgin plastic reduction across KDP's plastic packaging portfolio.*



Keurig Dr Pepper (KDP)

The data provided by Keurig Dr Pepper covers primary, secondary, and tertiary plastic packaging for the United States, Mexico, and Canada, which is comprehensive of the company's wholly owned operations. Franchised bottled beverage volumes are out of scope for this assessment. The reported data covers the period January 1, 2019, through December 31, 2019, for the 2019 reporting year, and January 1, 2020, through December 31, 2020, for 2020. The increase in reported weight of packaging between 2018 and 2019 is partly the result of an increase in scope of reporting to include secondary and tertiary packaging.

Keurig Dr Pepper's portfolio is as follows:

- PET bottles are Keurig Dr Pepper's predominant package form at 68% of their total portfolio by weight.
- PET bottles also account for 72% of the reported recycled content, with the remaining recycled content incorporated in HDPE other rigids.
- Overall, post-consumer recycled content is 2.0% of Keurig Dr Pepper's total portfolio.
- Following PET bottles, rigid containers are the next most common form at 18% of the total reported portfolio and are mostly made of PP (87%), followed by HDPE (10%) and PS (3%).
- Closures also represent 6.6% of Keurig Dr Pepper's portfolio and are predominantly comprised of PP (89%).
- Overall, PP represents 23% of Keurig Dr Pepper's total portfolio.

INSIGHTS ON KEURIG DR PEPPER'S PROGRESS

In 2020, Keurig Dr Pepper achieved one of its long-standing sustainability commitments: to fully transition its K-Cup® pods to PP. This resulted in the full elimination of PS from its portfolio as the last production lines transitioned to PP in 2020. This transition from PS to PP made it possible for the PP K-Cup® pods to be processed in many recycling systems in North America. PS decreased from 16% of Keurig Dr Pepper's portfolio in 2018 (33,400 metric tons) to 11% (24,200 metric tons) in 2019 and 0.6% in 2020 (1,300 metric tons) as this transition was

FIGURE 14. Input, polymer, and form distribution of Keurig Dr Pepper's plastic portfolio.

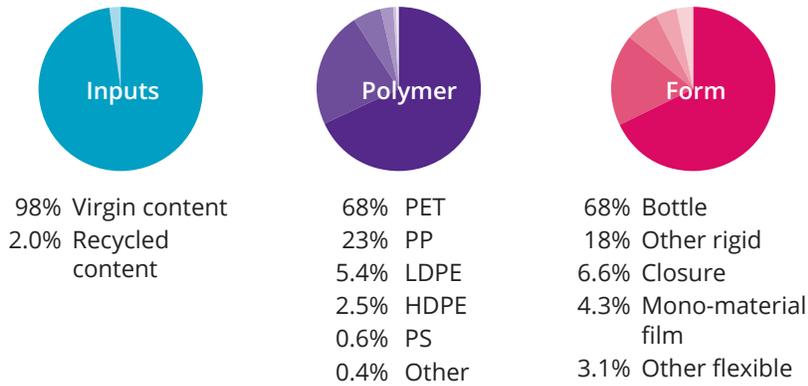
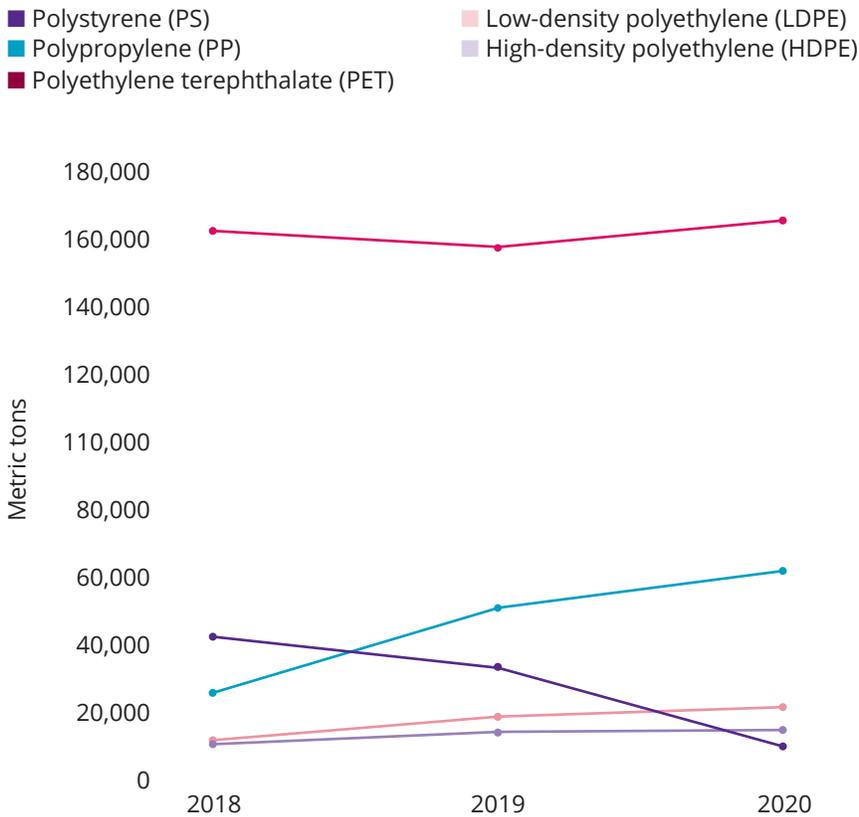


FIGURE 15. Polymer distribution of Keurig Dr Pepper's plastic portfolio for 2018, 2019, and 2020.





completed. Meanwhile, PP increased from 8.1% in 2018 (16,900 metric tons) to 18% (41,900 metric tons) in 2019 and 23% (52,900 metric tons) in 2020.

An increase in the scope of reported plastic, to include secondary and tertiary mono-material film, has resulted in an increase in film/flexibles between 2018 and 2019. Film/flexibles represented 2.4% of Keurig Dr Pepper's portfolio in 2018 (5,100 metric tons) and increased to 7.4% in 2020 (17,100 metric tons) based on this reporting scope change.

Additionally, in 2018 and 2019, the company reported 0.3% and 0.4% sustainable inputs in their portfolio, but in 2020, recycled content increased to 2.0% of Keurig Dr Pepper's portfolio. This recycled content appears in PET bottles, HDPE beverage carriers, and HDPE beverage shells. Keurig Dr Pepper implemented the transition of Core Hydration, 16oz Snapple and 500mL AguaFiel Natural to bottles made of 100% recycled PET (rPET), which is expected to eliminate about 47.5 million pounds of virgin plastic used by the company annually.

To support Keurig Dr Pepper's commitments to increasing the recyclability of their packaging and using recycled content, they have supported several efforts that go beyond their own supply chain and focus on supporting the increase of both access to recycling and recycling capacity for the most important materials and package forms in their portfolio: PET bottles and rigid PP. In 2020, Keurig Dr Pepper co-founded the American Beverage Association's Every Bottle Back initiative, which has committed \$100 million to advance the recovery of PET bottles through targeted investments and consumer education. For PP, Keurig Dr Pepper co-founded and committed \$10 million over five years to the Polypropylene Recycling Coalition, an initiative of The Recycling Partnership. The Polypropylene Recycling Coalition has allocated \$4.2 million since its 2020 launch to improve polypropylene recycling access for nearly 6% of the United States population. Additionally, Keurig Dr Pepper joined both the U.S. and Canadian Plastics Pacts in 2021.

Although flexible packaging is not as significant a proportion of Keurig Dr Pepper's portfolio, it remains a format that requires innovation to be able to recycle. Keurig Dr Pepper is participating in the Film & Flexibles Coalition, an initiative of The Recycling Partnership, which is focused on increasing curbside collection and store drop-off recycling of flexible and film packaging. Keurig Dr Pepper also supports initiatives with a broader focus on circularity and increasing recycling, including the Closed Loop Infrastructure Fund and The Recycling Partnership's Circular Economy Accelerator policy initiative.

In addition, Keurig Dr Pepper continues to utilize its K-Cycle to collect K-Cup® pods in offices in the US and Canada. From 2019 to 2020, over 535 metric tons of K-Cup pods were processed, resulting in 134 usable metric tons of recycled plastic and aluminum; and over 400 pounds of coffee grounds were composted. In early 2021, Keurig Dr Pepper also partnered with Keep America Beautiful to advance

public space recycling access along waterways in Jacksonville, Florida, and Columbus, Ohio. This resulted in the placement of recycling bins along coastal and river locations and messaging designed to connect recycling behavior with marine debris reduction.

Finally, KDP maintains a significant fountain beverage presence alongside its industry peers. This is a key enabler for the acceleration of reuse and refill in the beverage space, most notably at fast-food and quick-service restaurants as well as convenience stores across North America.



McDonald's Corporation

The data provided by McDonald's Corporation covers consumer-facing plastic packaging, excluding pre-packaged guest items. Secondary packaging and transport packaging are out of scope for this assessment. This data covers 23 countries representing an estimated 88% of the company's total sales volume. The scope of the reported data increased from the 12 countries representing 75% of the company's total sales volume reported in Transparent 2020, contributing to the increase in the total tonnage reported from 2018 to 2019. The reported data covers the period January 1, 2019, through December 31, 2019, for the 2019 reporting year and January 1, 2020, through December 31, 2020, for 2020.

McDonald's Corporation's 2020 portfolio is as follows:

- PP is the most common polymer, representing 59% of their total portfolio.
- PP other rigids are 44% of McDonald's portfolio, largely driven by cold cups, followed by small plastics (utensils, straws, etc.) at approximately 14% and closures at 13%.
- Closures account for 25% of McDonald's portfolio and are primarily comprised of PS (55%), PP (30%), and PET (14%).
- Biobased content is about 0.9% of volume, 83% of which is composed of HDPE flexibles and 17% from PLA.
- Recycled content is about 0.6% of McDonald's total portfolio. This is primarily from PET other rigids, HDPE flexibles, and PET closures.

McDONALD'S CORPORATION OVERVIEW AND GOALS

With over 39,000 locations in 119 countries, McDonald's is the world's leading global foodservice retailer. McDonald's purpose is to feed and foster communities and is committed to protecting the planet for communities today, and in the future. The company is driving climate action and accelerating circular solutions to help keep waste out of nature, including testing new packaging and recycling solutions around the globe to help reduce packaging, switching to more sustainable materials and helping customers reuse and recycle. The majority of McDonald's global packaging portfolio by weight is sustainable fiber (78%), with the remaining comprised of plastics (22%).

McDonald's wants to use its global scale to help accelerate a circular economy and has made three key commitments:

- 1. Source 100% of McDonald's guest packaging from renewable, recycled, or certified sources by 2025: This includes an interim goal to source 100% of primary fiber-based guest packaging from recycled or certified sources where no deforestation occurs by 2020.*

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**McDonald's
overview continued**

2. Recycle guest packaging in 100% of McDonald's restaurants by 2025: McDonald's understands that recycling infrastructure varies from city to city and country to country but plans to be part of the solution and help influence powerful change.

3. Remove all added fluorinated compounds from our guest packaging by 2025.

FIGURE 16. Input, polymer, and form distribution of McDonald's plastic portfolio.

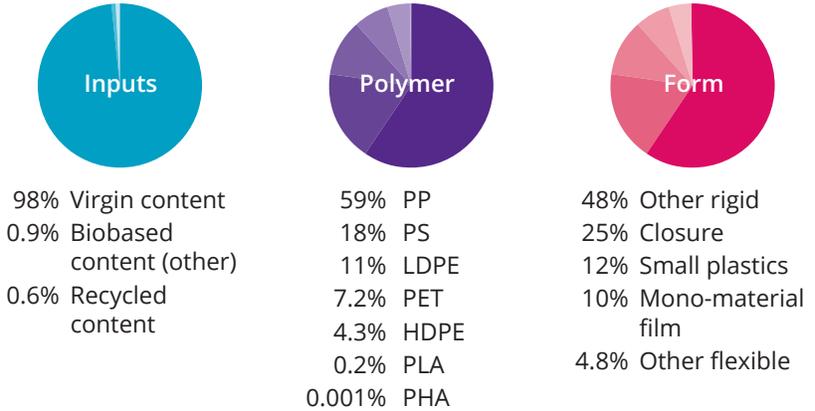
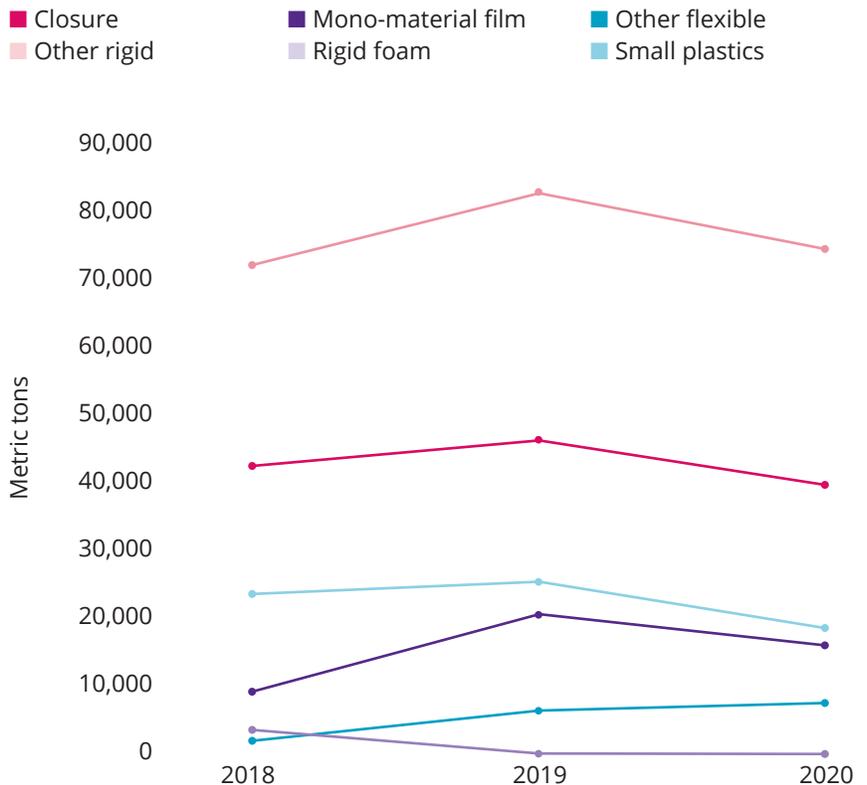


FIGURE 17. Form category distribution of McDonald's plastic portfolio for 2018, 2019, and 2020.



INSIGHTS ON MCDONALD'S CORPORATION'S PROGRESS

In 2018, McDonald's achieved their goal to eliminate EPS rigid foam from their global system, removing the 3,400 metric tons or 2.2% of their total portfolio reported in 2018. In terms of sustainable materials, in 2018, 2.6% of the portfolio (4,000 metric tons) was reported as recycled content. This number went down to 0.6% (940 metric tons) in 2020 due to the elimination of plastic packaging and shifts from plastic to fiber packaging. Biobased content increased from 0.1% of the portfolio (170 metric tons) in 2018 to 0.9% (1,500 metric tons) in 2020.

McDonald's is continuously evaluating opportunities to innovate and reduce plastics. The company made widespread deployments of paper straws and wooden cutlery across European markets and Australia, launched a fiber strawless lid in France, introduced strawless lids across large cities in China, and removed lids and straws for dine-in consumption across parts of Europe and Latin America to help eliminate small plastics. McDonald's also introduced fiber-based Happy Meal toys and toy packaging and partnered with TerraCycle's circular packaging service, Loop, to test reusables in the UK.

Beyond their supply chain, McDonald's has focused on initiatives that increase the recovery of single-use plastic and participated in multi-brand forums to advance circularity. These efforts include partnering with the Association of Plastics Recyclers to develop a plastic foodservice design for recyclability guide, engaging in the Paper Cup Recovery and Recycling Group (PCRRG), and exploring water-marking on packaging to significantly improve sorting and allow for more packaging to be recovered and recycled.

The company continued to support national organizations that aim to end littering and promote recycling. McDonald's is a long-standing supporter of Keep America Beautiful in the US and hosts educational and cleanup events in markets across the globe. Examples of local efforts include using McDonald's social media in Germany to raise awareness and encourage customers to dispose of packaging waste correctly, running a mass media campaign in the Netherlands that rewarded customers who disposed of their waste correctly, and organizing waste cleanup events and sustainability-focused lessons in over 50 cities across Russia between September and October 2020.

As a founding member, McDonald's committed \$5 million to the NextGen Consortium, a global consortium of brands working with municipalities, material recovery facilities, and manufacturers that aims to address single-use foodservice packaging waste by advancing the design, commercialization, and recovery of packaging alternatives. The NextGen Consortium collectively joined The Recycling Partnership's Polypropylene Recycling Coalition in December 2020 as part of a collaboration to increase recovery capacity for polypropylene in the United States.

PROCTER & GAMBLE OVERVIEW AND GOALS

P&G serves consumers around the world, with brands including Always®, Ambi Pur®, Ariel®, Bounty®, Charmin®, Crest®, Dawn®, Downy®, Fairy®, Febreze®, Gain®, Gillette®, Head & Shoulders®, Lenor®, Olay®, Oral-B®, Pampers®, Pantene®, SK-II®, Tide®, Vicks®, and Whisper®. P&G operates in approximately 70 countries worldwide.

P&G's Ambition 2030 Environmental Sustainability program includes a number of goals specific to packaging, including:

- 100% recyclable or reusable packaging
- Decreasing our use of virgin petroleum plastic packaging by 50%
- Finding solutions to ensure no P&G packaging finds its way to the ocean

As we advance progress against these goals, we are guided by three overarching principles:

- **LIFECYCLE THINKING:** Plastic packaging can drive significant and meaningful benefits such as product protection, consumer safety, and GHG emission benefits. As we assess packaging material and design choices that drive greater circularity, we are careful to look at full life cycle implications to help guide our choices and avoid unintended consequences.

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Procter & Gamble (P&G)

The data provided by P&G cover the company's consumer-facing plastic packaging, with an estimated completeness of 90% for all polymer types. Secondary packaging and transport packaging are out of scope for this assessment. Because P&G tracks data regionally, regional plastic tonnages were proportionately divided among countries that account for 80% of sales in each region to calculate country level estimates.

For their baseline assessment, P&G provided data for the period July 1, 2018, through June 30, 2019. Due to the earlier reporting deadline in 2021, it was only feasible for P&G to provide one full subsequent year of data for this report, covering the period July 1, 2019, through June 30, 2020. As a result, P&G's 2018-2019 baseline data will be associated with the 2019 reporting year and the 2019-2020 data will be associated with the 2020 reporting year.

P&G's portfolio is as follows:

- HDPE bottles are 29% of volume.
- PP other rigids are 21% and PET bottles and LDPE films are both 16%.
- P&G's total recycled content is 10% of their portfolio; biobased content is not reported in their portfolio.
- HDPE bottles were 53% of reported recycled content, followed by PET bottles at 32% and PET other rigids at 10%.

INSIGHTS ON PROCTER & GAMBLE'S (P&G) PROGRESS

P&G had several notable changes in their reported portfolio between 2019 and 2020. The proportion of closures reported in 2019 at 13% (78,600 metric tons) decreased in 2020 to 6.3% (38,600 metric tons) while other rigids increased from 3.9% (23,700 metric tons) to 31% (191,000 metric tons). Flexibles reported also decreased from 204,000 metric tons (34% of the total portfolio) in 2019 to 97,400 metric tons (16%) in 2020. P&G has indicated that these changes are in large part due to adjustments to their internal data systems to provide more consistent definitions and classification of plastic types. Thus, it is important to note that the decline in closures and flexibles and increase in other rigids is largely due to a difference in categorization rather than to a change in P&G's portfolio.

FIGURE 18. Input, polymer, and form distribution of P&G's plastic portfolio.

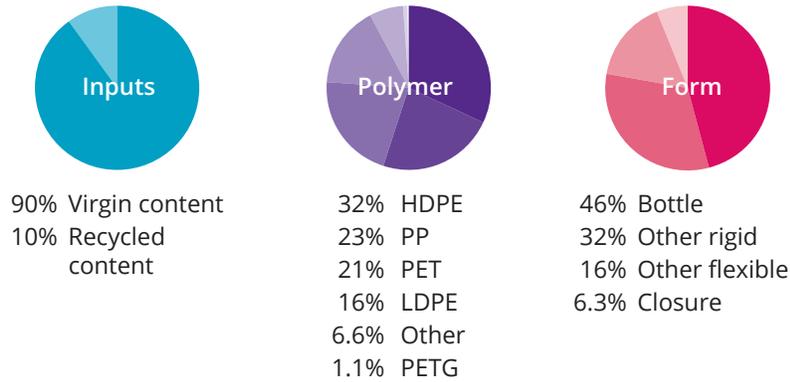
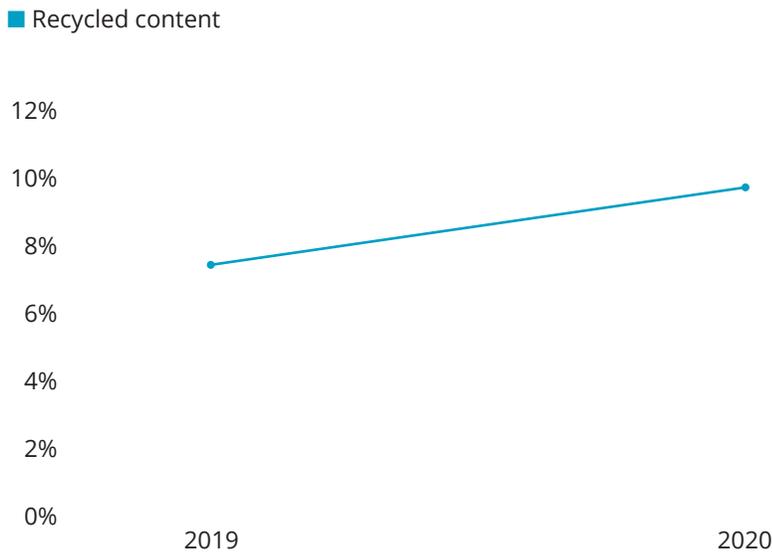


FIGURE 19. Input distribution for P&G's plastic portfolio for 2019 and 2020.



Procter & Gamble overview continued

- **WASTE MANAGEMENT HIERARCHY:** We subscribe to the waste management hierarchy and as much as feasible seek to progress our efforts toward the higher-order and preferred solutions within the hierarchy, starting with source reduction and reuse.
- **COLLABORATION:** The challenge of plastic waste is bigger than any one company, and we believe collaboration across the value chain and with civil society and governments will be key to driving solutions at scale. That is one of the reasons we joined ReSource: Plastic—it represents an opportunity to work with WWF and industry leaders to establish reporting tools which can better inform strategic investments for improvements.



In 2020, P&G's hair care brands in Europe launched a reusable aluminum bottle alongside a recyclable refill pouch that uses 60% less plastic than the previous format. Old Spice® and Secret® deodorants launched plastic-free packaging for some SKUs, Safeguard® in the Philippines replaced plastic overwraps on Safeguard® soap bars with recycled paper, and Ariel® pods tub packaging in Europe converted to standup pouches, reducing plastic usage by 75%.

P&G increased the use of recycled content in 2020 to 10% of its portfolio, up from 7.4% in 2019; 90% of the company's shampoo and conditioner bottles sold in Europe now contain 25% post-consumer recycled content. In early 2021, the company launched Gillette® Planet KIND, with razor handles made of 60% rPET and shave preparation bottles made of 85% rHDPE. Overall, P&G's plastic usage increased by 0.5% from 2019 to 2020. However, when normalized to organic sales, which increased, this is a decrease in plastic usage of 5.7% compared to the prior period.

Looking beyond P&G's portfolio, P&G's primary strategy to drive impact has been to invest in joint initiatives in which resources from multiple companies can be pooled to help drive impacts at scale. The company supports collaborations that focus on investing in recycling infrastructure, including The Recycling Partnership's Polypropylene Recycling Coalition, Circulate Capital, and Closed Loop Infrastructure Fund, to which P&G has committed \$10 million. Another focus of P&G's collaborations is research and innovation aimed at increasing availability and quality of recycled content. This includes the invention of PureCycle, a technology that uses a solvent extraction process to remove contaminants from used PP to create a high-quality recycled resin. P&G is licensing this technology so it is more broadly available to industry. Further, P&G has provided in-kind contributions including a full-time staff member to help drive the activities of HolyGrail 2.0, which aims to complete pilot-scale testing of digital watermarking technology in recycling streams in Europe. The successful implementation of this technology could result in more efficient and higher-quality recycling. P&G has committed funding to help create the Small Format Circularity Fund with The Sustainability Consortium, which has initiated cross-industry research and solutions aimed at capturing small format materials in the recycling stream. The focus of these initiatives largely aligns with key materials and package forms in P&G's portfolio to maximize impact.



Starbucks Coffee Company

The data provided by Starbucks covers plastic from direct operations and company-operated and licensed retail stores globally, including Evolution Fresh. Secondary packaging, transport packaging, non-store operations, and Starbucks' consumer packaged goods business are out of scope for this assessment. The reported data covers the period October 1, 2018, through September 29, 2019, for the 2019 reporting year and September 30, 2019, through September 27, 2020, for 2020.

For the 2018 reporting year, Starbucks estimated its global plastic footprint by calculating the average plastic use for its US company-operated stores and multiplying by per-country store counts. For 2019 and 2020, Starbucks made significant improvements to these estimates both by addressing some methodology issues to ensure greater consistency in US data that serves as the basis for the extrapolation, and by extrapolating globally using sales instead of store count, as this is more closely tied to packaging use. These changes led to a significant reduction in Starbucks' estimated plastic footprint, from 190,000 metric tons in the 2018 reporting year to 133,000 metric tons in 2019. Because it is a more accurate baseline against which to track progress, the 2019 data will serve as Starbucks' new baseline. However, the 2018 data will still be included in the aggregate *ReSource* data for that year.

A calculation error resulted in an incorrect polymer breakdown being reported for Starbucks in *Transparent 2020*. The correct breakdown for 2018 is 57% PP, 20% PET, 13% HDPE, 5.0% LDPE, 3.7% PS, 1.0% PLA, and 0.4% PVC.

Starbucks' portfolio is as follows:

- PP other rigids are the most common form in Starbucks' portfolio at 31% of their total footprint.
- PET other rigids are also a significant part of Starbucks' portfolio at 18%, and both of these categories are largely made up of cold cups.
- Closures, overall, represent 18% of Starbucks' total portfolio, nearly all of which are PP (66%), PET (22%), and PS (11%).
- Overall, PP is 61% of Starbucks' total footprint, and is primarily represented as other rigids (50%), followed by bottles (23%) and closures (19%).

STARBUCKS COFFEE COMPANY OVERVIEW AND GOALS

Aligning with its organizational vision, Starbucks is looking ahead with a heightened sense of urgency and conviction that we must challenge ourselves, think bigger, and do much more in partnership with others to take care of the planet we share. In January 2020, we announced our commitment to pursue a bold, multi-decade aspiration to become resource positive and give more than we take from the planet.

Starbucks has set targets for 2030:

- **CARBON:** 50% absolute reduction in scope 1, 2, and 3 greenhouse gas emissions representing all of Starbucks' direct operations and value chain from FY19 base year.
- **WATER:** 50% of water withdrawal will be conserved or replenished across our direct operations, stores, packaging, and agricultural supply chain from FY19 base year.
- **WASTE:** 50% reduction in waste sent to landfill from stores (including packaging that leaves stores) and direct operations from FY19 base year, driven by a broader shift toward a circular economy.

This is an aspiration that we take on recognizing it will come with challenges and will require transformational change. We also know that leadership in sustainability takes commitment, investment, innovation, and partnership, and so we are excited to work with WWF and the ReSource: Plastic Members to reduce plastic waste.

FIGURE 20. Input, polymer, and form distribution of Starbucks' plastic portfolio.

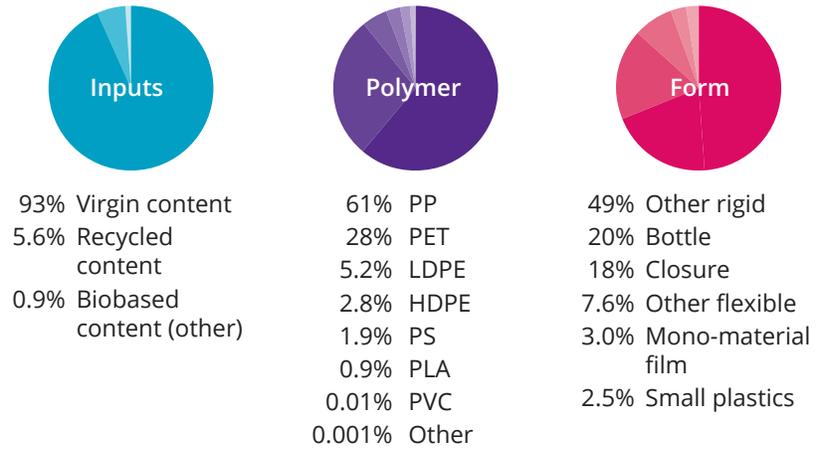
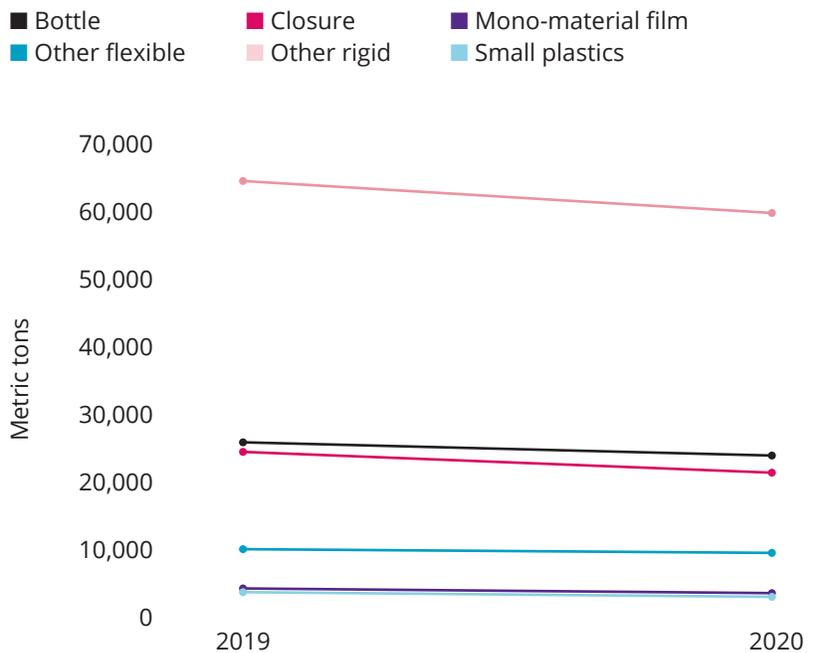


FIGURE 21. Form category distribution for Starbucks' plastic portfolio for 2019 and 2020.



- Recycled content is 5.6% of the portfolio, mostly reported in PET other rigids.
- Lastly, biobased content is exclusively represented in PLA and comprises 0.9% of Starbucks' portfolio. 76% of biobased PLA is represented as other rigids, followed by 19% of PLA closures.

INSIGHTS ON STARBUCKS' PROGRESS

In 2020, Starbucks completed the rollout of strawless lids across the US and Canada. These lids use approximately 9% less plastic than the flat lid and straw historically used for iced beverages. Overall, the use of small plastics (straws, stirrers, utensils, etc.) decreased from 5.3% in 2018 (10,100 metric tons) to 2.8% in 2019 (3,800 metric tons) and 2.5% in 2020 (3,000 metric tons).

The proportion of PP in Starbucks' portfolio went from 67% in 2019 (88,800 metric tons) down to 61% in 2020 (73,900 metric tons), while the proportion of PET increased from 17% in 2019 (23,300 metric tons) to 28% in 2020 (33,600 metric tons); this change is likely due to shifting business patterns during the COVID-19 pandemic. Of beverages sold in 2020, 1.3% were in reusable cups in company-operated stores in Canada, EMEA, Japan, and the US. The company also implemented single-use cup fees in the UK and Germany. Starbucks also updated the plastic packaging in salad bowls in the US to incorporate 25% PCR and launched a new Ethos water bottle that contains 20% post-consumer recycled content. In total, recycled content remained consistent at 5.6% from 2019 to 2020, with biobased content increasing slightly from 0.7% to 0.9%.

As part of its 2030 sustainability commitments, Starbucks has set out to drive the circular economy by leading in reusable cups. Starbucks conducted a trial of its own borrow-a-cup program in the spring of 2021 in five stores in Seattle. Additionally, in 2021, Starbucks trialed third-party-operated borrow-a-cup programs in Korea and Japan.

Beyond Starbucks' own portfolio, the company has continued its commitment to the NextGen Consortium, a global consortium of brands. The consortium aims to address single-use foodservice packaging waste by advancing the design, commercialization, and recovery of packaging alternatives by working with municipalities, material recovery facilities, and manufacturers. The NextGen Consortium collectively joined The Recycling Partnership's Polypropylene Recycling Coalition in December 2020 as part of a collaboration to increase recovery capacity for polypropylene in the United States. In 2019, Starbucks also tested a cup design accelerated by The NextGen Consortium that features an innovative cup liner called BioPBS™, which makes the cup certified compostable and recyclable. Increasing the overall recyclability of cups and ensuring that the corresponding recycling infrastructure is available remains an important focus of collaborative efforts by Starbucks and its NGO partners like the NextGen Consortium, The Recycling Partnership, and the Foodservice Packaging Institute.

THE COCA-COLA COMPANY OVERVIEW AND GOALS

The Coca-Cola Company's vision of a World Without Waste guides their approach to this topic. They work to reduce the impact of packaging waste on the environment through partnerships with bottling partners, NGOs, regulators, retailers, local communities, and competitors. The development of more complete data and metrics is critical to advancing this work. In January 2018, The Coca-Cola Company established three fundamental goals:

- 1. Make 100% of packaging recyclable globally by 2025—and use at least 50% recycled material in their packaging by 2030.*
- 2. Collect and recycle a bottle or can for each one sold by 2030.*
- 3. Bring people together to support a healthy, debris-free environment.*

And, in 2020, The Coca-Cola Company added the goal to:

- 4. Reduce use of virgin plastic derived from non-renewable sources by a cumulative 3 million metric tons by 2025.*

Underlying these goals is the need for more inclusive collection rates for all consumer packaging, stronger accounting of plastic packaging that reflects the breakdown of packaging by units sold, and the use of more inclusive metrics to drive progress toward stated goals.



The Coca-Cola Company

The data provided by The Coca-Cola Company covers consumer-facing plastic packaging for all The Coca-Cola Company's operating units and franchise bottlers. Secondary packaging, transport packaging, and packaging items with volumes over 3L or 3kg are out of scope for this assessment. The reported data covers the period January 1, 2019, through December 31, 2019, for the 2019 reporting year and January 1, 2020, through December 31, 2020, for 2020.

The Coca-Cola Company's portfolio is as follows:

- 97% of The Coca-Cola Company's portfolio is PET bottles.
- The remaining 3% is LDPE flexibles.
- 11% of The Coca-Cola Company's portfolio is recycled content, all of which is in PET bottles.
- Additionally, 0.4% of their portfolio is biobased content, with 40% of biobased content from PET bottles and the remaining 60% from the LDPE film.

INSIGHTS ON THE COCA-COLA COMPANY'S PROGRESS

Over the last several years, The Coca-Cola Company has been implementing new ultra-light weighting technology across various markets including Indonesia, India, the United States, Nepal, and Canada, using significantly less plastic while increasing shelf life. As of 2020, the volume of fountain, Freestyle, and refillable/reusable products sold was approximately 20% of the company's overall global sales volume. In more than 40 markets, refillables account for 25% or more of sales. In more than 20 markets, they account for 50% or more of sales. Reusable bottles represented more than 25% of sales in Latin America. The COVID-19 pandemic has surfaced opportunities to leverage sustainability and affordability objectives to further increase reusable packaging, and there are a number of pilot projects underway, including Loop TerraCycle and similar initiatives.

The Coca-Cola Company increased its use of recycled PET to 11% in 2020 (332,000 metric tons), up from 8.8% and 9.0% in 2018 and 2019 (262,000 and 287,000 metric tons), respectively. The company now offers beverages packaged in 100% recycled PET (rPET) bottles, not including the bottles' caps and labels, in around 30 markets, and Coca-Cola Great Britain uses around 50% rPET in their small format bottles. In 2020, The Coca-Cola Company announced transitions to 100% rPET bottles, excluding caps and labels, for their entire plastic packaging portfolios

FIGURE 22. Input, polymer, and form distribution of The Coca-Cola Company's reported plastic portfolio.

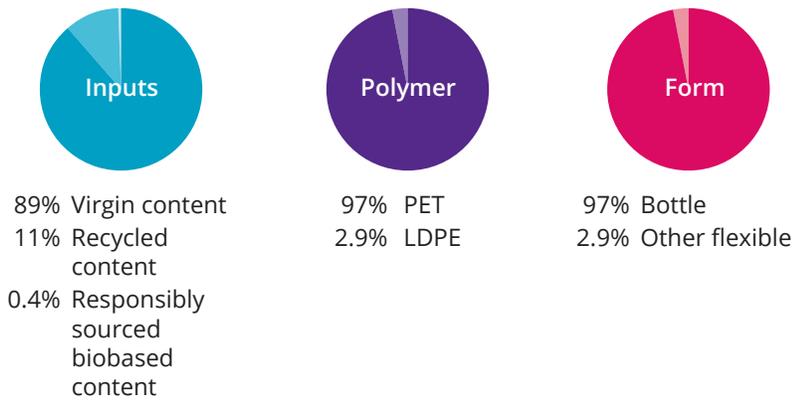
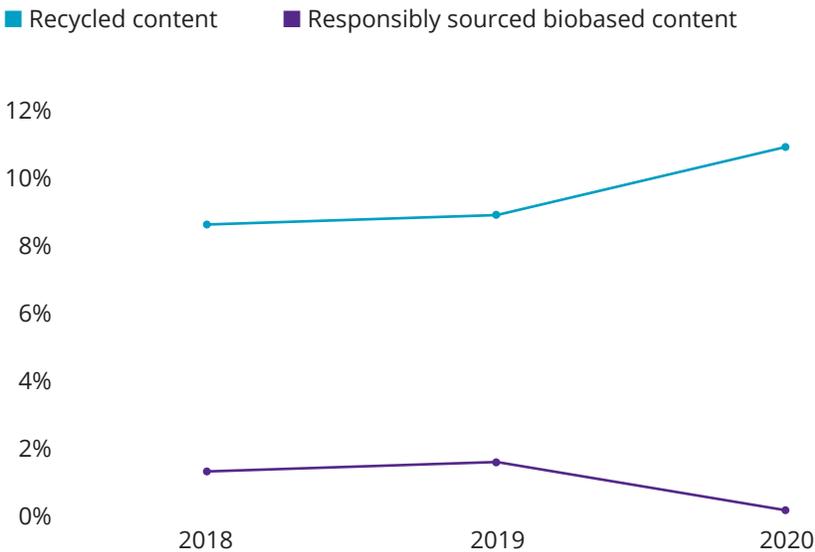


FIGURE 23. Input distribution of The Coca-Cola Company's reported plastic portfolio for 2018, 2019, and 2020.





in the Netherlands and Norway, joining the Sweden market, which had already made this transition. Responsibly sourced biobased content fluctuated from 1.5% in 2018 (45,200 metric tons) to 1.8% in 2019 (57,300 metric tons), then down to 0.4% in 2020 (11,100 metric tons). While the use of biobased content decreased in 2020 due to economic factors and a focus on increasing recycled content, two recent developments point to a potential increase in responsibly sourced biobased content in the near future: the pilot launch of a 100% biobased PET bottle, excluding caps and labels, and a collaboration with technology companies Meihe Science & Technology and UPM that seeks to scale technology that will make it possible to use a wider variety of bioplastic feedstocks to make PET.

A transition from colored to clear packaging has also begun on key brands to improve the recyclability of The Coca-Cola Company's packaging. The company's Sprite brand is launching a 13.2oz clear bottle and will transition its entire portfolio to clear packaging by the end of 2022. Approximately 90% of The Coca-Cola Company's current portfolio is recyclable. Supporting the efforts to improve recyclability, the company has launched their largest on-pack messaging effort in company history with a "Recycle Me" promotional effort on packages.

Beyond actions taken in their own portfolio, The Coca-Cola Company has engaged in collaborative efforts to improve plastic waste collection and infrastructure in key markets, including Southeast Asia and the US. The Coca-Cola Company is engaged in the American Beverage Association's Every Bottle Back campaign to increase PET bottle recycling in the US, and has joined the U.S. Plastics Pact to advance circular plastic systems in this key geography (The Coca-Cola Company is a member of eight of the 12 existing plastics pacts). In 2020, The Coca-Cola Company participated in the World Economic Forum Global Plastic Action Partnership, in which they have invested over \$1 million to support regional engagement in Indonesia, Viet Nam, and Ghana. This regional engagement includes educational campaigns and infrastructure development to support improved collection programs. Also in 2020, The Coca-Cola Company signed a business manifesto calling for a UN treaty on plastic pollution to urgently address the fragmented landscape of regulation and complement existing voluntary measures, putting their support behind the initiative of WWF, the Ellen MacArthur Foundation, and other organizations. Additionally, The Coca-Cola Company is part of the Trash Free Seas Alliance's Advancing Solutions to Plastic Pollution through Inclusive Recycling (ASPIRRE) project on inclusive recycling as well as a number of other key global, regional, and local partnerships.

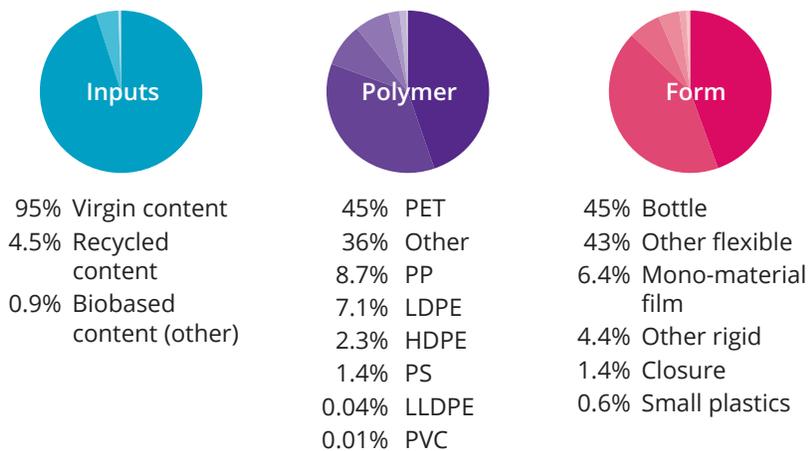
New Member Baselines



Amcor

The data provided by Amcor covers flexible and rigid packaging produced by the company, covering an estimated 83% of the company's operations. Secondary packaging, transport packaging, and Amcor's Specialty Cartons business are out of scope for this assessment. Amcor will be using the 2020 reporting year as its baseline, with the reported data covering the period July 1, 2020, through June 30, 2021.

FIGURE 24. Input, polymer, and form distribution of Amcor's reported plastic portfolio.



Amcor's portfolio is as follows:

- 49% of Amcor's portfolio is flexibles, including plastic categorized as "other," which represents multi-material flexibles made mostly of PE and PP. It should be noted that this material also includes some paper and metal foils, whose volume could not be separated from the plastic volume.
- Polypropylene (PP) is 8.7% of Amcor's total portfolio; however, it is actually higher, as the multi-material flexibles labelled as "other" contain an unknown proportion of PP as well.
- Biobased content (0.9% of the total portfolio) is present in their films, multi-material flexibles, and HDPE trays.

AMCOR'S OVERVIEW AND GOALS

Amcor believes that sustainability goes far beyond the products that they make. Nonetheless, the defining sustainability issue in the packaging industry is minimizing the presence of packaging waste in the environment. This is a challenge and an opportunity. The answer is responsible packaging, which rests on three pillars—innovating for product design, collaborating for better waste management and recycling infrastructure, and informing for greater consumer participation.

- *Amcor was the first packaging company to commit to all our packaging being recyclable or reusable by 2025, and, since making that commitment, we have gone further. By carefully selecting the raw materials we use, considering the life cycle impacts of our packaging, and designing for optimal end-of-use, we continue to demonstrate our leadership in responsible packaging.*
- *As part of our 2025 pledge, Amcor is committed to achieving 10% use of PCR resins across our portfolio by 2025.*
- *By 2030, Amcor will reduce our greenhouse gas emissions intensity by 60% compared to our 2006 baseline.*

- Recycled content, in total, represents 4.5% of Amcor's total portfolio.
- PET bottles make up 42% of total volume, and 98% of Amcor's reported recycled content is in PET bottles.

INSIGHTS ON AMCOR'S PROGRESS

To eliminate problematic or unnecessary packaging, Amcor has launched several product solutions, including Eco-Tite® R, a PVDC-free recyclable shrink bag for meat and cheese; Matrix, a paper-based recyclable packaging product that is also paraffin-free; and AmSky™, a recyclable blister package that eliminates PVC. For rigid packaging, Amcor has launched 25 light-weighted packaging products over the reporting period. Amcor has launched 88 new products containing PCR spanning several applications, including an innovative PET bottle design that allows for increased PCR content in hot-fill products. Out of these launches, 31 products contained 100% PCR. Amcor has also introduced several new products containing 100% Ocean Bound PCR and rHDPE. Within flexible packaging, Amcor launched AmPrima™ PE Plus, a film portfolio designed to be recycled via store drop-off or curbside.

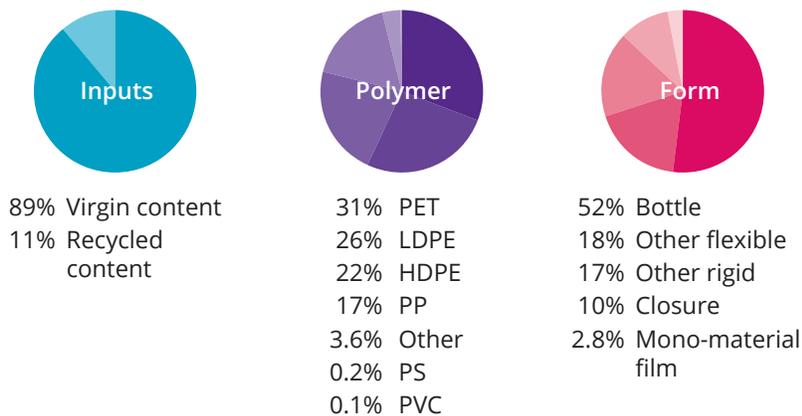
Beyond its own supply chain, Amcor participates in a number of cross-industry alliances and initiatives focused on advancing recycling for film and flexible packaging and overcoming barriers to recycling across a number of waste streams. The company also supports 4evergreen, an initiative of industry members across the plastics supply chain, focused on promoting low carbon and circular fiber-based packaging with the goal of raising the overall recycling rate of fiber-based packaging to 90% by 2030. Amcor is a member of the Ocean Conservancy's Trash Free Seas Alliance and several of the Ellen MacArthur Foundation's country Plastics Pacts, including the U.S. Plastics Pact, and is a signatory to the Ellen MacArthur Foundation's New Plastics Economy Global Commitment.

Collaborating to fill data gaps in plastic waste research is another advocacy focus for Amcor. The company has a long-standing partnership with Earthwatch Institute to educate employees and the public on the need to eliminate marine debris. Amcor employees are chosen to travel to expeditions in Indonesia, a priority area for plastic waste mismanagement, to contribute to research that has informed the Indonesian government's decision to invest in measures to address plastic waste. The most recent expedition, in Bali, focused on measuring improvements over the past three years and whether small-scale recycling efforts are having a positive impact on plastic waste.

Colgate-Palmolive Company

The data provided by Colgate-Palmolive covers the company's consumer-facing plastic packaging, covering an estimated 98% of the company's operations. Recent acquisitions and co-packer packaging (including secondary packaging and transport packaging) are out of scope for this assessment. Colgate-Palmolive will be using the 2020 reporting year as its baseline, with the reported data covering the period January 1, 2020, through December 31, 2020.

FIGURE 25. Input, polymer, and form distribution of Colgate-Palmolive's reported plastic portfolio.



Colgate-Palmolive's portfolio breaks down as follows:

- 89% is conventional virgin content and 11% is recycled content (10% post-consumer).
- Bottles are the most common package form at 52%, followed by flexibles at 21% and other rigids at 17%.
- Other rigids are primarily composed of LDPE (76%, mainly toothpaste tubes), followed by PET (14%) and PP (6.5%).

COLGATE-PALMOLIVE'S OVERVIEW AND GOALS

Colgate-Palmolive is a caring, innovative growth company reimagining a healthier future for all people, their pets, and our planet. And with the Colgate brand in more homes than any other, Colgate feels the awesome responsibility to make sustainability an easy part of people's lives.

To help fulfill its purpose, in 2020 Colgate launched its 2025 Sustainability and Social Impact Strategy with three key ambitions as well as 11 actions and corresponding targets.

Colgate-Palmolive's 2025 packaging and plastics targets include:

- *Eliminate unnecessary & problematic plastics in packaging*
- *Convert all packaging to recyclable, reusable, or compostable*
- *Reduce new (virgin) plastic by one-third based on 2019 baseline (includes packaging and manual toothbrushes)*
- *Use 25% post-consumer recycled plastic across the packaging portfolio*



INSIGHTS ON COLGATE-PALMOLIVE'S PROGRESS

In the US, Colgate-Palmolive:

- *Implemented 100% recycled content in PET bottles used across different sizes for Palmolive Ultra Dish Liquid, eliminating an estimated 5,200 metric tons of virgin plastic annually.*
- *Optimized the packaging for the Speed Stick Deodorant for Men, reducing plastic consumption by an estimated 920 metric tons on an annual basis.*
- *The company is transitioning out of opaque PET bottles, following industry-wide guidelines for design for recyclability. In the US, Murphy's Oil Soap Squirt and Mop Wood Floor Cleaner 32oz moved to tinted green PET and Irish Spring 18oz body wash moved to colored HDPE bottles.*

Colgate-Palmolive increased its global use of PCR in packaging to 10% from 7% in 2019. The company also launched a personal care tube with biobased resin in Brazil.

Beyond their own portfolio, Colgate-Palmolive has advocated for increasing the recyclability of tube packaging after having released, in 2019, the first-of-its-kind APR-recognized tube that is recyclable with the HDPE stream. Colgate-Palmolive is participating in the Stina Tube Recycling Project, an initiative that brings together tube manufacturers and brands from North America and Europe to collaborate on efforts to convert to recyclable design for tube packaging and to have tubes accepted into the recycling stream. The company has also made this technology available to third parties, with over 50 consultations with stakeholders so far.

Colgate-Palmolive also supports The Recycling Partnership and Closed Loop Infrastructure Fund to support infrastructure development and the new framework, the Pathway to Circularity. For flexibles recyclability, Colgate-Palmolive is participating in CEFLEX, a flexible packaging working group based in the European Union, and The Recycling Partnership's Film & Flexibles Task Force. These initiatives have aligned on and established design guidelines with the goal of increasing recycling of flexible packaging.

In North America, Colgate-Palmolive has joined the Canada and US Plastics Pacts, and has supported the setting of ambitious targets and enacting of consistent, transparent measurement of progress through the ReSource Footprint Tracker. The company is also a member of the UK, Portugal, and EU Plastics Pacts.



Kimberly-Clark Corporation

The data provided by Kimberly-Clark covers the company's consumer-facing plastic packaging and the Kimberly-Clark Professional business, covering an estimated 95% of the company's operations. Secondary packaging, transport packaging, and the company's feminine care primary product wrappers are out of scope for this assessment. Kimberly-Clark will be using the 2019 reporting year as its baseline, with the reported data covering the period January 1, 2019, through December 31, 2019, for 2019 and January 1, 2020, through December 31, 2020, for 2020.

Kimberly-Clark's portfolio is as follows:

- Conventional virgin content is 96%, recycled content is 2.5%, and responsibly sourced biobased content is 1.2%.
- LDPE mono-material film is the largest portion at 68%, driven by the nature of their product categories, including the large role that tissue and diapers play in their portfolio. This category is also where 99% of reported recycled content is contained, and 100% of responsibly sourced biobased content.
- Additional form categories are other flexibles at 15% and other rigids at 10%.
- Following LDPE film, the next-most-common polymer is PP at 17% of the portfolio. PP is primarily associated with other rigids (61%) and closures (34%).
- PET is 15% of the portfolio and is primarily represented by other flexibles (94%), with the remaining PET from bottles (6%).

INSIGHTS ON KIMBERLY-CLARK CORPORATION'S PROGRESS

From 2019 to 2020, Kimberly-Clark's total tonnage decreased by over 4%, and there were several shifts in the company's reported portfolio. Bottles decreased from 10% in 2019 to 1.0% in 2020. Additionally, the proportion of PP other rigid decreased from 16% (17,500 metric tons) in 2019 to 10% (11,000 metric tons) in 2020, while flexibles increased from 74% (82,600 metric tons) in 2019 to 82% (87,800 metric tons) in 2020.

In 2020, Kimberly-Clark worked to identify materials that may be problematic or unnecessary and began to develop action plans to address them. The company introduced a pilot to remove unnecessary plastic baffles from facial tissue boxes

KIMBERLY-CLARK'S OVERVIEW AND GOALS

Kimberly-Clark aspires to develop innovative materials and alternatives to traditional plastics while supporting development of the circular economy. Their strategic focus includes three key areas: Packaging, Product, and Circular Systems. Kimberly-Clark is committed to reducing their plastics footprint by 50% through reductions, renewables, and recycled substitutes, or by introducing reusable products or circular solutions. This is a complex and challenging undertaking that requires incorporation of systems thinking, partnerships, and collaboration from sourcing through to end-of-life. Five goals support this ambition:

- 100% of packaging will be reusable, recyclable, or compostable by 2025
- 20% average recycled content across plastic packaging by 2025
- 50% footprint reduction in new, fossil-fuel-based plastics by 2030 from a 2019 base year
- 75% of material in products will be either biodegradable or recovered and recycled by 2030
- 100% of manufacturing waste diverted from landfill to beneficial uses by 2022

FIGURE 26. Input, polymer, and form distribution of Kimberly-Clark's reported plastic portfolio.

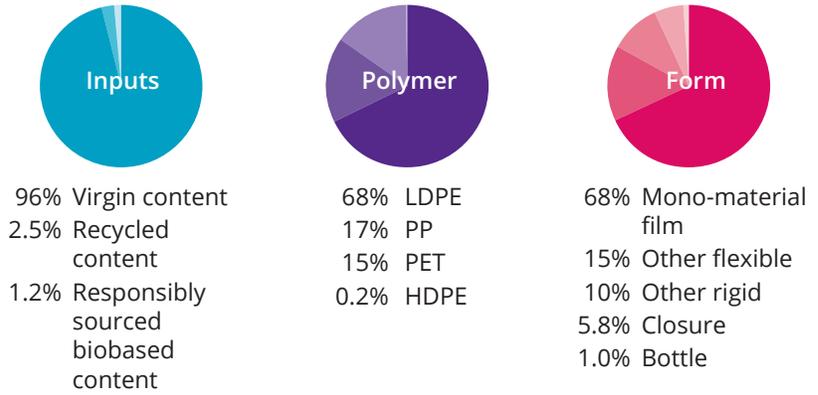
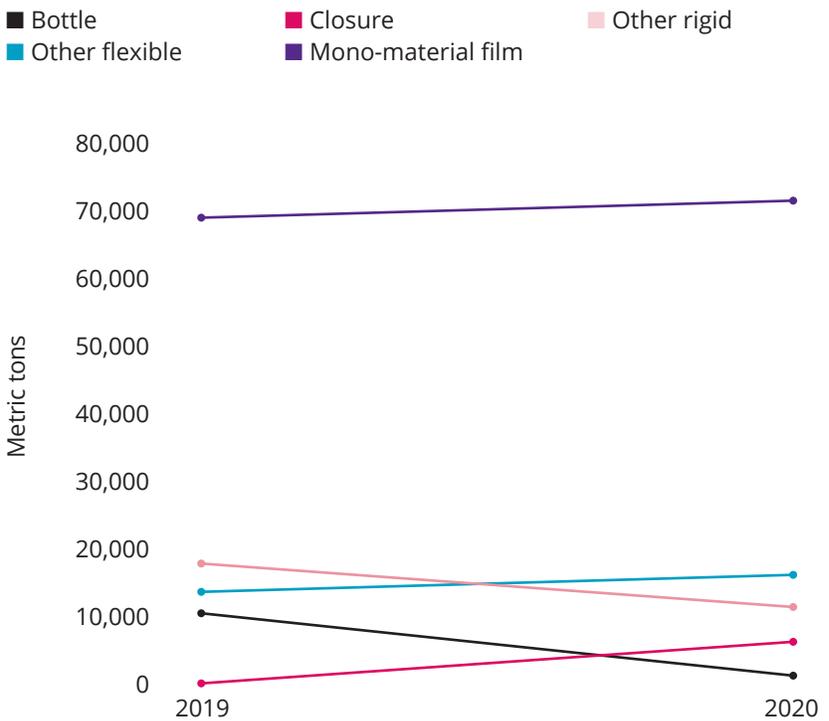


FIGURE 27. Form category distribution of Kimberly-Clark's plastic portfolio for 2019 and 2020.



in the UK, reducing plastic waste by 82 metric tons, and removed plastic handles from Andrex® wrapped packs, saving 31 metric tons of plastic per year.

Recycled content increased slightly from 1.9% in 2019 to 2.5% in 2020. Kimberly-Clark launched new packaging for Andrex® Classic Clean in the UK containing 30% recycled content. The company also launched 30% recycled content in secondary packaging in South Korea and biobased packaging for Kotex in Russia.

The focus of Kimberly-Clark's collaborative efforts matches the greatest challenges presented by the large proportion of flexible plastic in their portfolio, aiming to address low-value plastic that is challenging to recycle and often not collected by waste pickers in many geographies. In 2019 and 2020, Kimberly-Clark provided funding and programmatic support to two external initiatives focused on increasing the collection of low-value plastic and soft plastic in priority geographies and incentivizing waste pickers. The company partnered with India-based Waste Ventures to increase the financial incentives for waste pickers to collect soft plastic packaging. Once collected, this packaging is converted from waste to energy, displacing coal. The program is on track to achieve its 100-metric-ton collection target annually. In 2021, Kimberly-Clark India partnered with the Plastics for Change India Foundation to launch Project Ghar, which aims to deliver sustainable housing facilities to waste collectors in India and improve quality of life. Under Project Ghar, a total of 30 metric tons of single-use and multilayered plastic will be recycled to construct 15 houses in the Hubli-Dharwad region of Karnataka, India, over a period of six months.

Kimberly-Clark is a member of the Flexible Film Recycling Group, focused on raising awareness and recycling of flexible film PE through store drop-off. The company has also initiated third-party testing of innovative materials against recycling guidance standards to eliminate multi-material/non-recyclable packaging. Kimberly-Clark is an activator in the U.S. Plastics Pact, the Canada Plastics Pact, and the UK Plastics Pact, and further advances its efforts to remove and reintroduce plastics back into the global value chain through its support of the ASPIRRE project led by Ocean Conservancy's Trash Free Seas Alliance. This initiative aims to pilot new models with waste collectors in Colombia and Viet Nam and will work with local support organizations to provide training, skills development, and other capacity building to waste pickers and waste cooperatives while expanding processing capacity and stabilizing end markets for low-value plastics.



Maximize Recommendations for Action

Building on the findings from *Transparent 2020*, this section reflects on the action taken between that report and *Transparent 2021* and refines and adds to the recommendations made. Overall, the focal areas previously identified remain largely relevant, but developments in the past year have made some action paths clearer and more concrete, while others remain challenging. *ReSource* will utilize the recommendations and conclusions in this report to inform priority action in the next year, and to influence collective action plans.

Eliminating Unnecessary Plastic Through Business Model Innovation, Reduction, and Substitution

Small plastics, which include straws, lids, and utensils that are typically less than 2 inches in two dimensions, were previously identified as an important opportunity for improvement, and this remains true. Small plastics are an opportunity to eliminate difficult-to-recycle plastic (or improve recyclability of these items) for three *ReSource* Members. For small format plastics that remain

necessary, testing through regional plastic recycling organizations like The Association of Plastics Recyclers or Plastic Recyclers Europe is important to increase recovery in existing recycling systems. Several Members made significant progress on this issue. In particular, the elimination of straws and the change to alternative materials for cutlery were important drivers on this issue, with Starbucks reducing small plastics from 5% to 2% of their portfolio, and McDonald's reducing them from 16% to 9%. These have proven to be effective strategies and should be replicated by all companies to which they are applicable. In addition, driving collection of these items and improving the ability to recover these items in the recycling stream remains an important strategy for small plastics that cannot be addressed via elimination or substitution.

Reusable systems, also previously identified as a key opportunity, are now primed to scale up in a meaningful way. While there are still significant barriers, collaboration since early 2020 has been effective in creating a common understanding of what is needed to successfully implement reusable options, and an increased willingness by key actors to pursue them. Despite the setbacks to reusable packaging that were necessary to protect human health during the COVID-19 pandemic (pausing some programs and delaying the launch of others), several *ReSource* Members introduced or expanded reuse programs during this period and supported a key collaboration, the World Economic Forum's Consumers Beyond Waste initiative. Starbucks conducted trials across multiple markets in preparation for a broader program, The Coca-Cola Company reported that reusable bottles accounted for more than 25% of sales in Latin America, and P&G launched a reusable aluminum hair care bottle in Europe. Reusable packaging remains a key opportunity and should be pursued as a high priority for action from now through 2030.

Shifting to Sustainable Inputs for Remaining Plastic

Increasing the use of recycled content remains a priority, as it is key to building circular systems for plastic and incentivizing its collection and recycling. Among *ReSource's* Principal Members, recycled content increased from 7.8% to 9.6% from 2018 to 2020 (7.9% of the total

2020 aggregate results, including all eight Members). This is encouraging progress, but it also underscores the continued difficulty in sourcing recycled content, as even with this increase, all Members are still far from reaching their sustainable input goals. System-wide progress on this issue has been slow despite concentrated efforts on specific materials and in key markets. Collective action and investment in recycling systems remain critical to reaching these goals, as does addressing the incentive structure that keeps fossil virgin plastic inexpensive and easier to source.

Notably, responsibly sourced biobased content decreased from 1.3% of Principal Members' portfolios to just 0.3% from 2019 to 2020. Responsibly sourced biobased plastic is important to the long-term strategies of several *ReSource* Members, and notably has a role to play in applications where there is not currently a clear path to be able to use recycled content, or where the properties of a novel biobased plastic are advantageous (for example, if a pack would not be able to be recycled because of product contamination but could be composted).

As with recycled content, the supply of sustainably sourced biobased content will need to increase in order to meet the demand laid out in company commitments in upcoming years. Sustainably sourced biobased content can play an important role in the circular economy, filling in demand for virgin plastic after reduction and reuse strategies have been executed, and when recycled content is not available or cannot be used for the application.

Sourcing biobased content must be done within the context of a One Planet Perspective, ensuring that sourcing decisions respect the limits of nature and do not trade one negative impact for another. Biobased plastic can provide environmental advantages over virgin fossil-based plastic, but it must be sourced and managed responsibly to realize this potential. Metric-based decision making²³ and adherence to a credible standard such as the Roundtable for Sustainable Biomaterials²⁴ are highly recommended. The Bioplastic Feedstock Alliance, convened by WWF, provides thought leadership on the responsible sourcing of bioplastics and the role of bioplastics in circular systems.²⁵ Biobased plastics are not, alone, a solution for plastic pollution, as they face the same end-of-life challenges as does traditional

plastic, and in most cases are as likely to become plastic pollution as are fossil-based plastics. If appropriately sourced, they offer environmental advantages over their fossil-based counterparts, but there is still a need to drive interventions to improve end-of-life management of these materials.

Doubling Global Recycling and Composting of Plastic

While eliminating problematic polymers and package components may drive a relatively small reduction in overall plastic use, it is an important tactic to improve the recyclability of portfolios. Several *ReSource* Members pursued this strategy during this period, shifting away from problematic materials like EPS, consolidating their portfolios around a few key polymers for which they are also engaged on increasing recycling in key markets, or redesigning packs to eliminate components like shrink sleeves that impede recycling. Some Members also pursued changes to the color of the polymers they used in order to comply with design for recyclability guidelines and improve the quality and availability of recycled content. Design changes are an important complementary action to collective action on waste systems.

As outlined in *Transparent 2020*, availability of recycled materials does not match the demand set by companies to meet their sustainability goals. Stimulating the availability of recycled content was identified as a key intervention, and *ReSource* has therefore collaborated with a number of stakeholders to define opportunities to address this gap. *ReSource* Members are engaged in many collective action efforts to scale collection and recycling of plastic, and these efforts generally vary with each Member's portfolio—matching the formats, geographies, and polymers that are most relevant to them. Notably, progress has been made in the key geography of the US, where *ReSource* Members' volumes are highest and landfill rates are also high.

As noted above, PP is an important part of several *ReSource* Members' portfolios, and increasing recycling of PP is therefore an important priority for them. In less than one year, the Polypropylene Recycling Coalition, led by The Recycling Partnership, awarded grants to 13 recycling facilities to increase recycling access for PP by nearly 6% in the United States. This effort stimulates the

availability of recycled polypropylene for use in packaging, directly filling a clearly identified need.

Another initiative to increase recycling in the US focuses on PET bottles, the most common item in the *ReSource* Members' aggregate plastic footprint. *ReSource* has engaged with the American Beverage Association (ABA), who leads their Every Bottle Back campaign, which aims to strengthen community recycling programs to increase collection of PET bottles. Launched in 2019, to date the beverage industry has committed funding for 15 recycling infrastructure modernization projects nationwide totaling \$12.5 million in committed funding and estimated to yield 693 million more pounds of recycled PET in the US over 10 years.

In contrast, efforts to increase composting of plastic have remained minimal, with far less collective action being driven on this topic than for recycling. This is in part due to the reasonable strategic choices of stakeholders, as recycling is relevant to a greater volume of plastic and is a much more established system with potential to scale in many regions. Although it is a more niche issue, composting has the potential to make a significant difference particularly for applications of plastic use that, by the nature of the product, make recycling challenging, or for regions where composting systems are more viable than recycling systems. For example, there is evidence that pursuing a composting system, paired with appropriate materials, may be a more effective approach in some rural areas, where demand for compost is high and waste separation is less practical.²⁶ However, just as there is less collective action on composting, there is also less comprehensive research, leaving significant uncertainty. Recently, two notable initiatives were launched with the aim to address composting of packaging materials: The U.S. Plastics Pact's composting workstream aims to further their goal to effectively recycle or compost 50% of all plastic packaging by 2025, and Closed Loop Partners' Composting Consortium aims to pilot industry-wide solutions and build a roadmap for investment for compostable food packaging in the US. Both initiatives are in the early stages and bring much-needed collective action to the issue. Efforts to increase composting of materials should be pursued where there is evidence that this will be an impactful strategy.

Data Improvement and Harmonization

ReSource has called for collaboration to fill key data gaps and improve data confidence levels, especially in regard to data on global waste management estimates. As part of this effort to catalyze dialogue, WWF researchers have highlighted this data gap and advocated for a global monitoring framework on plastic pollution. In August 2021, the article “Uncertainties in global estimates of plastic waste highlight the need for monitoring frameworks” was published in *Marine Pollution Bulletin*. It highlights the discrepancies in reported plastic mismanagement estimates in three global scientific studies: Jambeck et al. (2015),²⁷ Lebreton and Andrady (2019),²⁸ and Borrelle et al. (2020).²⁹ The key takeaway of the article is that improved and standardized monitoring through a global treaty on plastic pollution is necessary for us to have an accurate picture of waste management practices on the ground, inform where to prioritize mitigation efforts, and track progress over time. Additionally, this discussion highlights the need for harmonization of waste management data sets. Without this harmonization, it will be difficult to track progress on this issue at a large scale, as activators will face the added challenge of determining whether changes observed over time are the product of real trends or simply of differing approaches to classification of waste management outcomes.

The ReSource Footprint Tracker allows key actors to align on metrics for success and identify targeted interventions across the global landscape. In the spirit of driving transformational change, in late 2020 the ReSource Footprint Tracker methodology was released as an open access publication. Data improvement and harmonization will continue to be a priority for refinements to *ReSource* moving forward.



Multiply Collaborating for Change

ReSource aims to multiply impact by strategically aligning and converging efforts across platforms, as this is critical to meeting the scale of the plastic waste crisis. Since the publication of *Transparent 2020*, *ReSource* has aligned with several key initiatives to harmonize efforts and drive scale, prioritizing issues identified as needing collective action to overcome barriers to change.

To this end, *ReSource* has supported and amplified the Consumers Beyond Waste initiative. Led by the World Economic Forum, Consumers Beyond Waste brings together leading business, innovator, government, and NGO actors who are committed to its mission of accelerating reuse solutions at scale. CBW's three community papers ([City Playbook](#); [Design Guidelines](#); [Safety Guidelines](#)) were published in September 2021, and will help stakeholders—designers, materials scientists, packaging engineers, and reuse-system providers—design, develop, implement, and scale innovative reuse systems as an integral part of the reduce-reuse-recycle agenda. By creating common guidelines for reuse and amplifying this issue, we aim to help scale the uptake of this important solution.

Another takeaway from *Transparent 2020* was the clear need to scale transparent and consistent measurement across sectors and in priority countries. Recognizing this need, *ReSource* engaged the U.S. Plastics Pact to leverage the ReSource Footprint Tracker. Launched in August 2020, the U.S. Plastics Pact is co-led by The Recycling Partnership as part of the Ellen MacArthur Foundation's New Plastics Economy initiative, with the goal of bringing together key stakeholders to implement solutions toward a circular economy. The U.S. Plastics Pact is focused on building stronger collective action across the US landscape, from on-the-ground projects in communities to transformational national policy. The ReSource Footprint Tracker is being used as the U.S. Plastics Pact's measurement tool for annual progress tracking of the more than 100 organizations, setting a path forward to meet ambitious targets by 2025.

Finally, *ReSource* continues to hold a thought leadership partnership with the Bioplastic Feedstock Alliance (BFA), which elevates the work of both platforms to a larger group. BFA is a leader in exploring how bioplastics can successfully fit within the circular economy. This partnership allows *ReSource* to benefit from BFA's existing work, including BFA's *Methodology for the Assessment of Bioplastic Feedstocks*, which is being completely updated in 2021 to reflect updated science, integrate a climate resilience lens, and ensure the methodology is applicable to novel bioplastic feedstocks.

Beyond collective business action, implementation of effective policy is an important lever to transform our material system, and advocacy for effective policy is emerging as a key tactic for change in some geographies. To that end, in 2021 WWF launched the One-Source Coalition in the US. The coalition is supported by a group of signatories that support principles of national extended producer responsibility, environmental justice, and international leadership to reimagine our linear economies. Digging deeper on one critical policy approach, WWF and ABA developed joint principles for extended producer responsibility with engagement from several *ReSource* Members. Taking a global view, a binding global treaty on plastic waste remains a priority. To advance the dialogue on this issue, several *ReSource* Members participated in the Global Treaty Dialogues, which were hosted by the Ocean Plastics Leadership Network.





Conclusion

Transparent 2021—as the second installment of *ReSource's* public report, but the first progress report from a baseline analysis—is a proof point for the value of measurement in effectively addressing the plastic waste crisis. The *ReSource* Footprint Tracker outcomes featured in *Transparent 2020* put a spotlight on the need for the Principal Members to target problematic and small plastics and to adopt reuse systems as a strategy to curb single-use plastic. One year later, substantial progress has been reported on these initial recommendations—demonstrating the power of data-driven interventions.

It also showed us where progress lagged, and notably, what structural barriers remain. One limiting factor is the availability of recycled content, which impedes companies' ability to shift their portfolio to sustainable sources. While collective action on reuse since June 2020 set up the framework for implementation, and progress was noted on reuse systems by *ReSource* Members, the system-wide infrastructure and investment needed to scale reuse have not yet been realized. When scaled, reuse and elimination have an estimated potential to address 30% of plastic leakage.³⁰ Thus, in the next reporting year, we hope to see more reuse models integrated into *ReSource* Members' portfolios, in addition to an increase in recycled content and continued elimination of unnecessary and problematic materials.

Progress is also subject to externalities, and in 2020, COVID-19 disrupted business supply chains and action plans. COVID-19 is still impacting people around the world, and the uncertainty and disruption it has brought with it are still important factors going into 2022. Looking forward, there is a need to understand the ways in which the pandemic has shaped and changed opportunities for action on plastic waste. It will likely still be months, or even years, before we get a full perspective on how COVID-19 has changed the way we live our lives, including its effects on supply chains and how people shop and make decisions about products. As this picture develops, it's critical to seize new, strategic opportunities to address the plastic waste crisis that may not have been relevant or feasible before this shift.

While *ReSource: Plastic* is working to understand data gaps in plastic waste management, including mismanaged plastic waste, a global response is needed to fill those data gaps, enact national waste management monitoring, and support infrastructure and system development where plastic recovery is lacking or nonexistent. The Fifth Session of the UN Environment Assembly (UNEA-5) in February 2022 presents the opportunity to begin formal negotiations on the design and implementation of a global treaty on plastic pollution. A global treaty on plastic pollution would transform how governments and the private sector respond to plastic waste. If and when a treaty is enacted, it will be necessary to re-evaluate priorities and align action plans around this global framework.

Glossary

Advanced Materials

Advanced materials are those that are sustainably produced, mitigate climate change, and reduce the risk of fossil depletion. This term typically captures future materials innovations that are currently in the design stage or at a very small scale. We align with the Roundtable for Sustainable Biomaterials' [Advanced Products Standard](#).

Bottle

A bottle is a form of rigid packaging having a comparatively narrow neck or mouth with a closure and usually no handle.

Source: ISO 21067: 2007

Closure

Closures include caps and closures that would be left on containers going to recycling. Caps/closures that would be disposed of separately from the primary container would fall under small plastics (problematic to recycle as separate components due to size).

Compostable

Packaging or a packaging component is compostable if it is in compliance with relevant international compostability standards and if its successful post-consumer collection, (sorting), and composting are proven to work in practice and at scale.

Source: EMF Global Plastics Commitment

Durable Product

Durable goods are products with a life span of three years or more.

Source: US Environmental Protection Agency

Mismanaged Waste

We follow the definition of mismanaged waste outlined by [Jambeck et al. \(2015\)](#): "material that is either littered or inadequately disposed." Mismanaged waste typically includes uncontrolled landfills and open dumps, waste that is not collected, and waste that is littered. Thus, this value is not how much plastic enters the ocean, but

rather a potential volume that is not adequately managed and has the potential to enter ecosystems.

Mono-material Film

Mono-material film is a flexible material that contains only one polymer and no non-plastic materials and is not multilayered. It includes mono-material stretch and shrink films and mono-material film bags and sacks that are suited for recycling.

Shrink Film

Shrink film is a plastic material that shrinks in size when heated to conform to the item(s) packaged.

Source: ISO 21067: 2016

Stretch Wrap

Stretch wrap is a material that elongates when applied under tension and which, through elastic recovery, conforms to item(s) packaged.

Source: ISO 21067:2016

Other Flexible

Other flexible includes multi-material/laminate films.

Other Rigid

The "other rigid" category is used to capture rigids that are not classified as bottles, closures, foamed rigids, or small plastics.

Recyclable

Packaging or a packaging component is recyclable if its successful post-consumer collection, sorting, and recycling are proven to work in practice and at scale. A package is considered recyclable if its main packaging components, together representing greater than 95% of the entire packaging weight, are recyclable according to this definition, and if the remaining minor components are compatible with the recycling process and do not hinder the recyclability of the main components.

Source: EMF Global Plastics Commitment

Recycled Content

Recycled content is post-consumer recycled content and does not include pre-consumer recycled content.

- Post-consumer recycled content is defined as the proportion, by mass, of post-consumer recycled material in a product or packaging.
- Pre-consumer recycled content is defined as material diverted from the waste stream during a manufacturing process.

Source: ISO 14021:2016

Responsibly Sourced Biobased Content

Responsibly sourced biobased content, at a minimum:

1. Is legally sourced;
2. Is derived from renewable biomass and must pose no adverse impacts on food security;
3. Does not have negative impacts on land conversion, deforestation, or critical ecosystems; and
4. Provides environmental benefits.

Credible certifications such as the Roundtable on Sustainable Biomaterials certification can help ensure responsible sourcing. Together, we consider responsibly sourced biobased content and post-consumer recycled content as constituting sustainable plastic inputs.

Source: Bioplastics Feedstock Alliance (<https://bioplasticfeedstockalliance.org/>)

Rigid Foam

Forms under the “rigid foam” category include rigid products made from foamed polymers, typically polystyrene (PS).

Small Plastics

Small plastics are items smaller than 2 inches in two dimensions that require testing to determine the appropriate APR recyclability category.

Source: The Association of Plastic Recyclers

Sustainable Plastic Inputs

Sustainable plastic inputs as referred to throughout this report include recycled content, responsibly sourced biobased content, and advanced materials.

Unnecessary Plastic

Unnecessary plastic is plastic that, if not used, would not create adverse environmental or social trade-offs related to, for example, energy use, food waste, or quality of life.

Polymer Classification

List of Polymers for Single Use Plastics Abbreviation

Acrylonitrile-butadiene-styrene copolymer	ABS
Ethylene	EVOH
High-density polyethylene	HDPE
Low-density polyethylene	LDPE
Linear low-density polyethylene	LLDPE
Nylon	Nylon
Other (specif	Other
Polybutylene	PBAT
Polybutylene	PBS
Polybutylene	PBSA
Polycarbonate	PC
Polyethylene	PEF
Polyethylene terephthalate	PET
Polyethylene	PETG
Polyhydroxyalkanoate	PHA
Polylactic acid	PLA
Polypropylene	PP
Polystyren	PS
Polyvinyl chloride	PVC
Polyvinyl	PVOH

Appendix A

TABLES A1-9. Aggregate results and individual *ReSource* Members' results.

Aggregate		2018	2019	2020
Total tonnage		3,590,000	4,500,000	6,910,000
Companies reporting		4	6	8
INPUTS				
	Recycled content	7.8%	7.6%	7.9%
	Responsibly sourced biobased content	1.3%	1.3%	0.2%
	Biobased content (other)	0.2%	0.03%	0.3%
	Virgin content	90.8%	91.1%	91.6%
FORM				
	Bottle	82.0%	79.4%	66.8%
	Closure	9.2%	3.7%	2.7%
	Mono-material film	0.5%	2.1%	3.7%
	Other flexible	1.4%	8.9%	18.6%
	Other rigid	5.9%	5.3%	7.7%
	Rigid foam	0.1%	0.0%	0.0%
	Small plastics	1.0%	0.6%	0.5%
POLYMER				
	ABS	0.0%	0.0%	0.0%
	EPS	0.1%	0.0%	0.0%
	HDPE	5.8%	3.1%	4.8%
	LDPE	1.5%	9.1%	7.8%
	LLDPE	0.0%	0.0%	0.0%
	Nylon	0.0%	0.0%	0.0%
	Other	0.1%	1.2%	13.0%
	PC	0.2%	0.0%	0.0%
	PET	82.3%	77.5%	64.2%
	PETG	0.0%	0.5%	0.1%
	PHA	0.0%	0.0%	0.0%
	PLA	0.1%	0.0%	0.0%
	PP	7.5%	7.2%	9.1%
	PS	2.3%	1.4%	0.9%
	PVC	0.0%	0.0%	0.0%
WASTE MANAGEMENT				
	Recycling	43.9%	41.3%	31.3%
	Incineration	6.6%	7.5%	9.2%
	Landfill	34.7%	35.4%	43.6%
	Mismanagement	14.8%	15.8%	15.9%

Keurig Dr Pepper		2018	2019	2020
TONNAGE	Total tonnage	208,000	230,000	230,000
	Change in tonnage from 2018	–	+10.4%	+10.3%
	Normalization factor	*	\$11.12B sales	\$11.618B sales
	Normalized change in tonnage from 2019	*	*	-4.4%
INPUTS	Recycled content	0.3%	0.4%	2.0%
	Responsibly sourced biobased content	0.0%	0.0%	0.0%
	Biobased content (other)	0.0%	0.0%	0.0%
	Virgin content	99.7%	99.6%	98.0%
FORM	Bottle	72.8%	64.4%	68.1%
	Closure	4.3%	8.0%	6.6%
	Mono-material film	1.3%	0.5%	4.3%
	Other flexible	1.1%	5.7%	3.1%
	Other rigid	19.2%	21.4%	17.9%
	Rigid foam	0.0%	0.0%	0.0%
	Small plastics	1.3%	0.0%	0.0%
POLYMER	ABS	0.0%	0.0%	0.0%
	EPS	0.0%	0.0%	0.0%
	HDPE	0.6%	2.2%	2.5%
	LDPE	1.2%	4.2%	5.4%
	LLDPE	0.4%	0.0%	0.0%
	Nylon	0.0%	0.0%	0.0%
	Other	0.0%	0.5%	0.4%
	PC	0.0%	0.0%	0.0%
	PET	73.6%	64.4%	68.1%
	PETG	0.1%	0.0%	0.0%
	PHA	0.0%	0.0%	0.0%
	PLA	0.0%	0.0%	0.0%
	PP	8.1%	18.2%	23.0%
	PS	16.0%	10.5%	0.6%
	PVC	0.0%	0.0%	0.0%

*2018 normalization factor unavailable due to 2018 merger between Keurig Green Mountain business and Dr Pepper Snapple Group; thus, normalized plastic change from 2018 to 2019 is also unavailable.

	McDonald's	2018	2019	2020
TONNAGE	Total tonnage	153,000	181,000	156,000
	Change in tonnage from 2018	-	+18.8%	+2.0%
	Normalization factor	*	65B units sold	54B units sold
	Normalized change in tonnage from 2019	*	*	+2.7%
INPUTS	Recycled content	2.6%	1.2%	0.6%
	Responsibly sourced biobased content	0.0%	0.0%	0.0%
	Biobased content (other)	0.1%	0.6%	0.9%
	Virgin content	97.3%	97.7%	98.5%
FORM	Bottle	0.0%	0.0%	0.0%
	Closure	27.7%	25.6%	25.3%
	Mono-material film	6.0%	11.3%	10.3%
	Other flexible	1.4%	3.5%	4.8%
	Other rigid	47.2%	45.7%	47.7%
	Rigid foam	2.2%	0.0%	0.0%
	Small plastics	15.5%	14.0%	11.9%
POLYMER	ABS	0.0%	0.0%	0.0%
	EPS	2.2%	0.0%	0.0%
	HDPE	0.1%	3.5%	4.3%
	LDPE	6.0%	11.3%	10.9%
	LLDPE	0.0%	0.0%	0.0%
	Nylon	0.0%	0.0%	0.0%
	Other	1.4%	0.0%	0.0%
	PC	0.0%	0.0%	0.0%
	PET	7.7%	11.0%	7.2%
	PETG	0.0%	0.0%	0.0%
	PHA	0.0%	0.0%	0.0%
	PLA	0.1%	0.3%	0.2%
	PP	54.3%	53.2%	59.5%
	PS	28.2%	20.7%	18.0%
	PVC	0.0%	0.0%	0.0%

*2018 normalization factor unavailable due to inconsistencies with collected normalization factor.

Procter & Gamble		2019	2020
TONNAGE	Total tonnage	605,000	609,000
	Change in tonnage from 2019	-	+0.6%
	Normalization factor	-	6% increase in sales
	Normalized change in tonnage from 2019	-	-5.1%
INPUTS	Recycled content	7.4%	9.7%
	Responsibly sourced biobased content	0.0%	0.0%
	Biobased content (other)	0.0%	0.0%
	Virgin content	92.6%	90.3%
FORM	Bottle	49.4%	46.2%
	Closure	13.0%	6.3%
	Mono-material film	0.0%	0.0%
	Other flexible	33.7%	16.0%
	Other rigid	3.9%	31.4%
	Rigid foam	0.0%	0.0%
	Small plastics	0.0%	0.0%
POLYMER	ABS	0.0%	0.0%
	EPS	0.0%	0.0%
	HDPE	18.6%	32.5%
	LDPE	25.3%	16.0%
	LLDPE	0.0%	0.0%
	Nylon	0.0%	0.0%
	Other	8.4%	6.6%
	PC	0.0%	0.0%
	PET	30.9%	21.1%
	PETG	3.9%	1.1%
	PHA	0.0%	0.0%
	PLA	0.0%	0.0%
	PP	13.0%	22.8%
	PS	0.0%	0.0%
	PVC	0.0%	0.0%

	Starbucks	2018	2019	2020
TONNAGE	Total tonnage	191,000	133,000	121,000
	Change in tonnage from 2019	-	New Baseline	-9.3%
	Normalization factor	*	\$26.5B Revenue	\$23.5B Revenue
	Normalized change in tonnage from 2019	*	*	+2.2%
INPUTS	Recycled content	6.4%	5.6%	5.6%
	Responsibly sourced biobased content	0.0%	0.0%	0.0%
	Biobased content (other)	1.0%	0.7%	0.9%
	Virgin content	92.6%	93.7%	93.5%
FORM	Bottle	15.4%	19.6%	19.9%
	Closure	19.5%	18.4%	17.6%
	Mono-material film	1.9%	3.2%	3.0%
	Other flexible	6.7%	7.6%	7.6%
	Other rigid	51.2%	48.4%	49.5%
	Rigid foam	0.0%	0.0%	0.0%
	Small plastics	5.3%	2.8%	2.5%
POLYMER	ABS	0.0%	0.0%	0.0%
	EPS	0.0%	0.0%	0.0%
	HDPE	12.9%	3.0%	2.8%
	LDPE	5.0%	5.9%	5.2%
	LLDPE	0.0%	0.0%	0.0%
	Nylon	0.0%	0.0%	0.0%
	Other	0.0%	0.0%	0.0%
	PC	0.0%	0.0%	0.0%
	PET	19.8%	21.3%	27.9%
	PETG	0.0%	0.0%	0.0%
	PHA	0.0%	0.0%	0.0%
	PLA	1.0%	0.7%	0.9%
	PP	57.1%	66.8%	61.3%
	PS	3.7%	2.1%	1.9%
	PVC	0.4%	0.1%	0.0%

*2018 normalization factor unavailable due to changes in extrapolation calculation as explained in text.

The Coca-Cola Company		2018	2019	2020
TONNAGE	Total tonnage	3,040,000	3,240,000	3,050,000
	Change in tonnage from 2018	-	+6.8%	+0.3%
	Normalization factor	117B bottles sold	120B bottles sold	112B bottles sold
	Normalized change in tonnage from 2018	-	+4.1%	+4.8%
INPUTS	Recycled content	8.6%	8.9%	10.9%
	Responsibly sourced biobased content	1.5%	1.8%	0.4%
	Biobased content (other)	0.1%	0.0%	0.0%
	Virgin content	89.8%	89.4%	88.7%
FORM	Bottle	90.9%	95.3%	97.1%
	Closure	8.0%	0.0%	0.0%
	Mono-material film	0.1%	0.0%	0.0%
	Other flexible	1.0%	4.7%	2.9%
	Other rigid	0.0%	0.0%	0.0%
	Rigid foam	0.0%	0.0%	0.0%
	Small plastics	0.0%	0.0%	0.0%
POLYMER	ABS	0.0%	0.0%	0.0%
	EPS	0.0%	0.0%	0.0%
	HDPE	6.0%	0.0%	0.0%
	LDPE	1.1%	4.7%	2.9%
	LLDPE	0.0%	0.0%	0.0%
	Nylon	0.0%	0.0%	0.0%
	Other	0.0%	0.0%	0.0%
	PC	0.3%	0.0%	0.0%
	PET	90.6%	95.3%	97.1%
	PETG	0.0%	0.0%	0.0%
	PHA	0.0%	0.0%	0.0%
	PLA	0.0%	0.0%	0.0%
	PP	2.0%	0.0%	0.0%
	PS	0.0%	0.0%	0.0%
	PVC	0.0%	0.0%	0.0%

Discrepancies in the reported figures by The Coca-Cola Company between this report and The Ellen MacArthur Foundation's Global Commitment report can be attributed to differences in reporting scope. The Coca-Cola Company's Global Commitment reporting focuses on PET plastic packaging, while data reported to *ReSource: Plastic* also includes beverage cartons.

Amcor		2020
TONNAGE	Total tonnage	2,360,000
INPUTS	Recycled content	4.5%
	Responsibly sourced biobased content	0.0%
	Biobased content (other)	0.9%
	Virgin content	94.6%
FORM	Bottle	44.5%
	Closure	1.4%
	Mono-material film	6.4%
	Other flexible	42.7%
	Other rigid	4.4%
	Rigid foam	0.0%
	Small plastics	0.6%
POLYMER	ABS	0.0%
	EPS	0.0%
	HDPE	2.3%
	LDPE	7.1%
	LLDPE	0.0%
	Nylon	0.0%
	Other	36.0%
	PC	0.0%
	PET	44.4%
	PETG	0.0%
	PHA	0.0%
	PLA	0.0%
	PP	8.7%
	PS	1.4%
	PVC	0.0%

Colgate-Palmolive

2020

TONNAGE	Total tonnage	289,000
INPUTS	Recycled content	10.5%
	Responsibly sourced biobased content	0.0%
	Biobased content (other)	0.0%
	Virgin content	89.5%
FORM	Bottle	51.6%
	Closure	10.4%
	Mono-material film	2.8%
	Other flexible	18.3%
	Other rigid	16.9%
	Rigid foam	0.0%
	Small plastics	0.0%
POLYMER	ABS	0.0%
	EPS	0.0%
	HDPE	22.0%
	LDPE	26.4%
	LLDPE	0.0%
	Nylon	0.0%
	Other	3.6%
	PC	0.0%
	PET	30.9%
	PETG	0.0%
	PHA	0.0%
	PLA	0.0%
	PP	16.8%
	PS	0.2%
	PVC	0.1%

Kimberly-Clark		2019	2020
TONNAGE	Total tonnage	111,000	106,000
	Change in tonnage from 2019	-	-4.3%
	Normalization factor	\$18,450M net sales	\$19,140M net sales
	Normalized change in tonnage from 2019	-	-7.8%
INPUTS	Recycled content	1.9%	2.5%
	Responsibly sourced biobased content	1.2%	1.2%
	Biobased content (other)	0.0%	0.0%
	Virgin content	97.0%	96.3%
FORM	Bottle	9.5%	1.0%
	Closure	0.0%	5.8%
	Mono-material film	62.4%	67.5%
	Other flexible	12.2%	15.2%
	Other rigid	15.9%	10.4%
	Rigid foam	0.0%	0.0%
	Small plastics	0.0%	0.0%
POLYMER	ABS	0.0%	0.0%
	EPS	0.0%	0.0%
	HDPE	8.7%	0.2%
	LDPE	62.4%	67.5%
	LLDPE	0.0%	0.0%
	Nylon	0.0%	0.0%
	Other	0.0%	0.0%
	PC	0.0%	0.0%
	PET	12.4%	15.4%
	PETG	0.0%	0.0%
	PHA	0.0%	0.0%
	PLA	0.0%	0.0%
	PP	16.5%	16.9%
	PS	0.0%	0.0%
	PVC	0.0%	0.0%

Appendix B

TABLE B1. Form description and classification

Packaging Classification	Form Category (Column E)	Form Category Definition	Form Description Examples (Column)
RIGID	Bottle	A form of rigid packaging having a comparatively narrow neck or mouth with a closure and usually no handle. <i>Source: ISO 21067:2007</i>	Bottle
	Closure	Includes caps and closures that would be left on containers going to recycling. Caps/closures that would be disposed separately from the primary container would fall under small plastics (problematic to recycle as separate components due to size)	Screw caps on plastic bottles
	Rigid foam	Rigid products made from foamed polymers, typically Polystyrene (PS).	Foamed products like EPS cups, foamed PS plates, egg cartons, meat and produce trays
	Other rigid	Category used to capture rigids that are not classified as bottles, closures, foamed rigids, or small plastics.	Solid cups, jars, disposable utensils, thermoforms, trays, blisters, non-foam clamshells
RIGID/FLEXIBLE	Small plastics	Items smaller than 2 inches in two dimensions require testing to determine the appropriate APR recyclability category. These small packages are lost to the plastic recycling stream. <i>Source: APR</i>	Plastic coffee sticks, coffee pods
	Raw material	Polymer used as raw material for manufacturing plastic products or packaging	Polymer pellets used as primary content of molded or extruded product; polymer used as coating or barrier material
FLEXIBLE	Mono-material film	Includes monomaterial stretch and shrink films or monomaterial film bags and sacks that are suited for recycling. SHRINK FILM: plastic material that shrinks in size when heated to conform to the item(s) packaged. <i>Source: ISO 21067-1:2016</i> STRETCH WRAP: material that elongates when applied under tension and which, through elastic recovery, conforms to item(s) packaged. <i>Source: ISO 21067-1:2016</i>	Pallet wrap, stretch or shrink wrap around products for shipment, single-use plastic grocery bags
	Other flexible	Other Flexible would include multi-material/laminate films.	Direct product packaging, laminated beverage or food pouches, metallized films, snack bags and wrappers

TABLE B2. List of countries reported by *ReSource* Members and the regional groupings used in the analysis.

Region	Country
East Asia & Pacific	Australia, Brunei Darussalam, Cambodia, China, Fiji, French Polynesia, Hong Kong SAR China, Indonesia, Japan, Republic of Korea, Lao People's Democratic Republic, Malaysia, Mongolia, Myanmar, New Caledonia, New Zealand, Papua New Guinea, Philippines, Singapore, Taiwan China, Thailand, Viet Nam
Europe & Central Asia	Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kazakhstan, Kosovo, Kyrgyz Republic, Latvia, Lithuania, Luxembourg, Former Yugoslav Republic of Macedonia, Malta, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Serbia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine, United Kingdom, Uzbekistan
Latin America & Caribbean	Argentina, Aruba, The Bahamas, Barbados, Belize, Bolivia, Brazil, Cayman Islands, Chile, Colombia, Costa Rica, Curaçao, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, St. Kitts and Nevis, St. Lucia, St. Martin (French part), St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Turks and Caicos Islands, Uruguay, Bolivarian Republic of Venezuela
Middle East & North Africa	Algeria, Bahrain, Arab Republic of Egypt, Islamic Republic of Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Morocco, Oman, Qatar, Saudi Arabia, Tunisia, United Arab Emirates, West Bank and Gaza, Republic of Yemen
North America	Canada, United States
South Asia	Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka
Sub-Saharan Africa	Benin, Botswana, Burkina Faso, Cabo Verde, Cameroon, Chad, Côte d'Ivoire, Democratic Republic of the Congo, Ethiopia, Gabon, Ghana, Guinea, Kenya, Madagascar, Mali, Mauritius, Mozambique, Namibia, Nigeria, Rwanda, Senegal, Somalia, South Africa, Sudan, Tanzania, Togo, Uganda, Zambia

Endnotes

- 1 "Breaking the Plastic Wave: A Comprehensive Assessment of Pathways Towards Stopping Ocean Plastic Pollution." The Pew Charitable Trusts and SYSTEMIQ, 2020. https://www.pewtrusts.org/-/media/assets/2020/10/breakingtheplasticwave_mainreport.pdf.
- 2 "Marine Debris: Understanding, Preventing and Mitigating the Significant Adverse Impacts on Marine and Coastal Biodiversity." Technical Series No. 83. Secretariat of the Convention on Biological Diversity, 2016. <https://www.cbd.int/doc/publications/cbd-ts-83-en.pdf>.
- 3 Analysis conducted by WWF using data from UNEP, Trucost, and the Plastic Disclosure Project.
- 4 We rely on the ISO 14021:2016 definition of post-consumer recycled content, and the USDA definition of biobased content. Together, we consider post-consumer recycled content and responsibly sourced biobased content as constituting "sustainable" or "responsible" inputs. WWF follows the Bioplastic Feedstock Alliance's definition of responsibly sourced biobased content; see Glossary for complete definitions.
- 5 Advanced products are those that are sustainably produced, mitigate climate change, and reduce the risk of fossil depletion. This term typically captures future materials innovations that are currently in the design stage or at a very small scale. We align with the [Roundtable for Sustainable Biomaterials' Advanced Products Standard](#).
- 6 Secondary packaging can have a higher recycling rate than post-consumer plastic because it is generally possible to aggregate secondary packaging waste in relatively high volumes of homogenous material. For this reason, primary packaging was prioritized for this pilot.
- 7 Jambeck, K.R., R. Geyer, C. Wilcox, T.R. Siegler, M. Perryman, A. Andrady, R. Narayan, and K.L. Law. "Plastic waste Inputs from Land into the Ocean." *Science* 347, no. 6223 (February 13, 2015): 768-71. <https://doi.org/10.1126/science.1260352>.
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- 9 More recent estimated annual plastic production statistic unavailable.
- 10 The small plastics category as reported in our baseline is primarily composed of straws, cutlery, and splash sticks. Bottle caps fall under the "closures" category rather than the small plastics category.
- 11 "The APR Design Guide for Plastics Recyclability." The Association of Plastic Recyclers, 2018. https://plasticsrecycling.org/images/pdf/design-guide?FullAPR_Design_Guide.pdf.
- 12 Davis, R. and C. Joyce. "Plastics: What's recyclable, what becomes trash – and why." NPR, August 21, 2019. <https://apps.npr.org/plastics-recycling/>.
- 13 "New Plastics Economy Global Commitment: Commitments, Vision and Definitions." Ellen MacArthur Foundation, 2020. https://www.newplasticseconomy.org/assets/doc/Global-Commitment_Definitions_2020-1.pdf.
- 14 "No Plastic in Nature: A Practical Guide for Business Engagement." World Wildlife Fund, February 25, 2019. https://files.worldwildlife.org/wwfcmprod/files/Publication/file/91am5jqlgw_WWF_McK_Plastic_Waste_FinalWeb2.pdf.
- 15 WWF believes that responsibly sourced biobased content at a minimum must be legally sourced; derived from renewable biomass; pose no adverse impact on food security; have no negative impact on land conversion, deforestation, or critical ecosystems; and provide environmental benefits—including near-term climate benefits—compared with fossil-based plastic. Credible certifications such as the Roundtable on Sustainable Biomaterials can help ensure responsible sourcing.
- 16 "Breaking the Plastic Wave: A Comprehensive Assessment of Pathways Towards Stopping Ocean Plastic Pollution." The Pew Charitable Trusts and SYSTEMIQ, 2020. https://www.pewtrusts.org/-/media/assets/2020/10/breakingtheplasticwave_mainreport.pdf.
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- 19 Region categories with countries can be found in Appendix B.
- 20 Rounding is to the nearest whole number for regional management rates.
- 21 Waste management rates are generally based on averages for all plastics but have been adjusted to account for differences by form (subject to data availability).

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- 23 "Methodology for the Assessment of Bioplastic Feedstocks." The Bioplastic Feedstock Alliance, 2015. <https://bioplasticfeedstockalliance.org/mdocs-posts/methodology-for-the-assessment-of-bioplasticfeedstocks/>.
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- 26 Pfaff-Simoneit, W., Ziegler, S., Long, T.T. 2021: Separate collection and recycling of waste as an approach to combat marine litter - WWF pilot project in the Mekong Delta, Vietnam, in: Kuehle-Weidemeier, Matthias (2021): Waste-to-Resources 2021, 9th International Symposium Circular Economy, MBT, MRF and Recycling, online conference, ICP Ingenieurgesellschaft mbH, Karlsruhe 2021.
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- 29 Borrelle et al. 2020. "Predicted growth in plastic waste exceeds efforts to mitigate plastic pollution." *Science* 369(6510): 1515-1518. <https://www.science.org/doi/abs/10.1126/science.aba3656>.
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