

# Transparent 2022

## Annual *ReSource: Plastic* Progress Report

December 2022

ReSource Plastic

# Executive Summary

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 on.

As part of the effort to bring data and collaboration to the forefront of corporate action, *ReSource: Plastic* publicly reports on the progress of its Member companies 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.

### ABOUT *RESOURCE*

*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.

### *TRANSPARENT 2022*

*Transparent 2022* is the third installment of *ReSource: Plastic's* reporting series. It expands on key findings that were established in previous years' reports and presents new recommendations for Member companies to further their impact with data-driven actions. This report highlights progress made relating to *ReSource* Members' global plastic footprints in 2021, including their use of plastic by polymer type and form, their use of recycled content and sustainably sourced biobased content, and the likely waste management pathways for their plastic portfolios. Along with a multi-year progress analysis for our Principal Members, *Transparent 2022* includes a first look at progress for Members that provided their baseline analysis in last year's report. In early 2022, CVS Health joined *ReSource: Plastic* as Principal Retail Member; *Transparent 2022* includes CVS Health's baseline reporting, which will be used to measure progress in future *Transparent* reports. The scope and characteristics of each company's data are outlined within the report.

### *RESOURCE* MEMBERS




## INSIGHTS

*Transparent 2022* expands on established opportunities for corporate action using *ReSource*'s approach to systems change: eliminating unnecessary plastic, doubling global recycling and composting, shifting to sustainable inputs for remaining plastic, and improving data harmonization. Overall, the focus areas previously identified in *Transparent 2020* and *Transparent 2021* remain largely relevant, but developments in recent years have made some action paths clearer and more concrete, while others remain challenging. *Transparent 2022* also highlights new areas of action to address the changing landscape, such as targeting factors within immediate business control, advocating to drive holistic change, and designing portfolios to meet a future vision. *ReSource* will continue to 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

**Members should continue successful tactics to target the reduction, redesign, and testing of small plastics,** which include familiar single-use items like utensils, coffee stirrers, and straws. Overall, small plastics were reduced from the 2020 reporting year by 1,500 metric tons, continuing the trend identified in *Transparent 2021*. Replicating and building on these successful tactics should remain a key priority for Members, as small plastics are often lost from recycling streams. 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 remain a key opportunity and should be pursued as a high priority for action now through 2030.** Members reported a wide range of pilots in reuse programs as part of their operations in 2021, demonstrating that collective action efforts on reuse continue to create alignment on definitions and measurement and advance opportunities for pilots and collaboration.

## SHIFT TO SUSTAINABLE INPUTS FOR REMAINING PLASTIC

**Increasing the use of recycled plastic to address the significant gap between current use and corporate commitments is key.** Among *ReSource's* Principal Members, recycled content increased from 8.1% in 2019 (343,000 metric tons) to 12.5% in 2021 (559,000 metric tons). For all Members, recycled content is 10.2% of the aggregate portfolio, up from 8.0% in 2020. Collaborative efforts across key markets and on specific materials are beginning to impact the availability of recycled material, providing a proof point for this work's value to reach recycled content goals. Where there is not a clear pathway to use recycled content, the use of responsibly sourced biobased plastic remains an important strategy for *ReSource* Members; between 2020 and 2021, several Members reported promising and innovative projects that aim to increase biobased content in the future.

## DOUBLE GLOBAL RECYCLING AND COMPOSTING OF PLASTIC

**Eliminating problematic plastic remains a key strategy to increase recyclability of Member portfolios.** Continuing the trend from *Transparent 2021,* Member use of problematic plastic continues to shrink, decreasing from 94,200 metric tons (1.4% of the portfolio) in 2020 to 91,100 metric tons (1.3%) in 2021. This decrease is smaller in magnitude than in previous years, reflecting the reality that as this volume gets smaller, it also gets more difficult to eliminate what remains.

**The availability of recycled materials continues to not match the demand set by companies to meet their sustainability goals.** Increasing availability of recycled content is a key intervention, and *ReSource* Members are engaged in many collective action efforts to scale collection and recycling of plastic, varying with each Member's portfolio. Incremental progress continues to be made in the U.S., where *ReSource* Members' volumes are highest and landfill rates are also high.

## IMPROVE DATA HARMONIZATION

**Data and method harmonization is more relevant than ever,** as the list of stakeholders interested in understanding the state of the plastic waste crisis expands to include investors, financial institutions, and policy makers. With stakeholder interest increasing, more companies are taking the initiative to measure their plastic footprints, driving demand for voluntary measurement systems, like the ReSource Footprint Tracker, to feed into the development of disclosure frameworks.

**Building upon existing work** to create convergence and alignment, rather than duplicating efforts and/or proliferating methods, is critical for progress. Expanding on current work avoids costly duplication, leverages the learnings from leaders and early adopters, and provides value and feasibility proof points to those being asked to participate in these systems.

## ACT WITHIN IMMEDIATE BUSINESS CONTROL

**Targeting factors within operational control presents an opportunity for significant impact for Members.** Businesses have direct control over design choices, and among *ReSource* Members, the factors that fall within the immediate ability of the company to address are understandably the fastest to show progress. By identifying what immediate steps are necessary to address their individual plastic footprints today, businesses will better align themselves for greater systemic changes down the line.

## ADVOCATE FOR CONTINUED ENGAGEMENT FROM STAKEHOLDERS, POLICY MAKERS, AND OTHER CORPORATIONS

**By leveraging their critical influence, businesses can advocate** for significant policy advancements on the horizon. Although companies can make meaningful progress to address plastic pollution through individual action, achieving broader goals will require advocating for wide-scale holistic change. Importantly, policy changes at local, regional, national, and international levels can help Members achieve higher rates of recycled content and materials recovery and reduce mismanagement. With the ongoing negotiation of the United Nations global instrument to address plastic pollution, businesses are needed more than ever to advocate for an ambitious and effective outcome.

## DESIGN PORTFOLIOS FOR THE FUTURE

**Working toward a comprehensive vision of how a company portfolio will fit within a future landscape** of improved waste management systems and optimized incentives and policies can set Members up for success. Members should not limit strategies or ambitions to what they can achieve alone or what is currently required by policy. Instead, they should set themselves up for the future by designing a smart plastic portfolio today.

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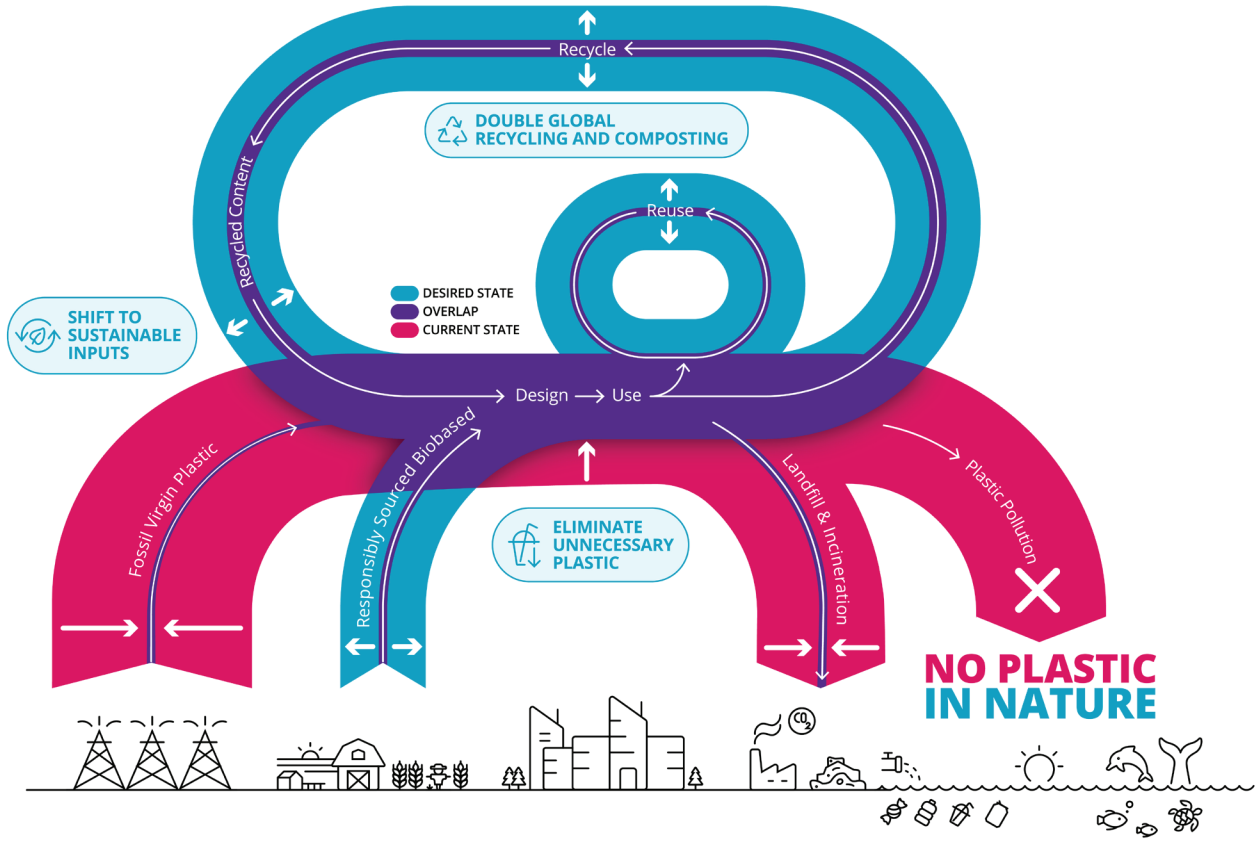
# Introduction

Plastic is flowing into nature at an unprecedented rate every day, with a dump truck's worth entering our oceans every minute.[1] In one year alone, this plastic waste adds up to 11 million metric tons and impacts over 2,000 species.[2,3] 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 on—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 through 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 within their own supply chains through improved sourcing, design, and business model innovation. They can also serve as points of influence and catalysts for action among other stakeholders, including governments and the

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




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 50 million metric tons of the world's plastic waste by 2030.[4] 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 the ReSource Footprint Tracker, an innovative measurement framework that tracks corporate action against *ReSource*'s three-pronged approach to leverage business as a catalyst for systems change. This approach includes:

- 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,[5] and advanced materials[6]
- 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, *ReSource* aims 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 the ReSource Footprint Tracker, an innovative measurement framework that calculates aggregate and individual Member global plastic footprints to track progress annually and inform strategy.

**MAXIMIZE IMPACT** by tracking implementation and progress of 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 Principal Members that have demonstrated ambition and sector leadership on plastic waste: Keurig Dr Pepper, McDonald's Corporation, Procter & Gamble, Starbucks, and The Coca-Cola Company. Since then, we have welcomed three additional Members: Amcor, Colgate-Palmolive, and Kimberly-Clark. CVS Health has also joined as Principal Retail Member. As Members of *ReSource*, the companies are committed to tracking and annual reporting on their plastic footprint, 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

The Ellen MacArthur Foundation and Ocean Conservancy are leaders in the global effort to stop plastic pollution. As our thought partners, they provide continued guidance that helps inform strategy and strengthen the conservation-driven objectives of *ReSource*. Our work aims to build on and align with their programs and tools, notably the New Plastics Economy Global Commitment, led by the Ellen MacArthur Foundation and UN Environment Programme (UNEP).

### IMPLEMENTATION PARTNERS

Implementation Partners are organizations that scale 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 joined ABA as a *ReSource* Implementation Partner, utilizing the ReSource Footprint Tracker as a measurement tool for annual progress tracking. This year, the Canada Plastics Pact has used the ReSource Footprint Tracker to measure its progress for the first time.

### 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. 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 2022* is the third annual report that details *ReSource* 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 types of plastic companies use, the source of the material, and where it goes upon disposal—whether it circulates back into the system or becomes a wasted resource.

Detailed 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.

No significant updates were made to the data collection survey or methodology for the 2021 reporting period; however, several data improvements were made to the waste management model. WWF continues to collaborate with Wood Mackenzie, a research and consultancy group specializing in the energy, chemicals, metals, and mining industries, to provide PET bottle recycling rates globally. PET bottle recycling rates were added for three new countries and updated for 89 countries based on the latest data from Wood Mackenzie. Other existing data sources in the model were also reviewed, and updated recycling rates were added when available. Lastly, form- and polymer-specific recycling rates for PET, HDPE, PP, PS, and PVC bottles and other rigids in Canada were also added to the model based on the latest available data from the Canada Plastics Pact, which adopted the ReSource Footprint Tracker as its reporting mechanism in 2022.

### INTERPRETING THE ASSESSMENT

As *ReSource* has been developed to bring the disparate variables that contribute to the global plastic waste problem into a single framework, there are inevitable challenges in the data collection process. Companies have very different systems for tracking plastic throughout their supply chains, and global data on plastic waste management is not consistently collected. When reviewing the findings of the assessment, please consider the following data limitations and assumptions:

- 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 were not verified or audited by a third party.

- Data collection methodologies and reporting scopes vary somewhat between Members. Detailed information about what is covered by the reported data is provided in each company's individual results section.

- Due to the limited availability of waste management data in several key geographies, in many regions it is currently not possible to meaningfully distinguish between an individual company's plastic waste footprint and national averages. Therefore, waste management outcomes are reported in the aggregate in this report and not on an individual company basis.

- Lastly, this assessment represents a relatively small set of companies, so there are limitations on what can be concluded from the results. While these nine companies are well-known global companies and leaders in their respective industries, they are not necessarily representative of these industries as a whole or the global plastic waste situation.

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

## 2021 Results

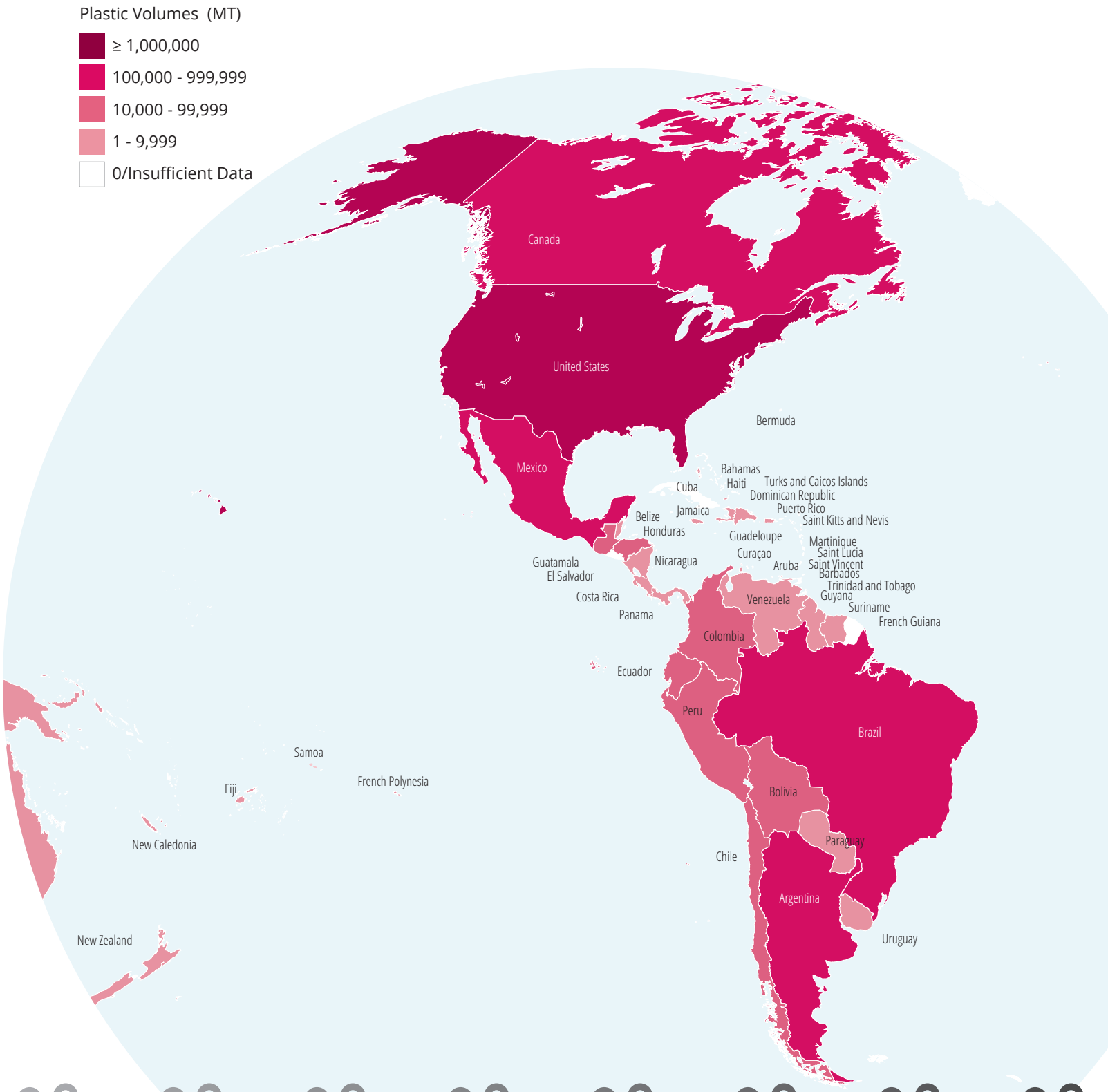
### COMPANY PORTFOLIO AND CONTEXT

*ReSource* Members reported a total of 4.83 million metric tons of plastic in 2021 that was sold to retailers and consumers (including business consumers) or discarded in-house. In addition, 2.37 million metric tons of plastic were sold business-to-business. Note that whenever plastic footprints are aggregated across Members in this report, there is potential for double counting of any plastic sold between *ReSource* Members.

The global plastic packaging market was estimated to be 134 million metric tons in 2020.[7] Using this figure, *ReSource* Members' contribution to annual global plastic packaging (excluding business-to-business volumes) is approximately 3.6%. It should also be noted that The Coca-Cola Company and Amcor together account for 78% of the total reported volume, which can skew aggregate results.

The total tonnage of the eight Members that reported in 2020 increased by 5.3% in 2021. This appears to be in part due to a rebound in volumes after a decline between 2019 and 2020, likely due to disruptions caused by the COVID-19 pandemic. In addition, some Members have seen continuous increases in reported tonnages since their baselines because of increased sales. For six out of the eight Members that have reported for multiple years, plastic tonnages have declined relative to net sales since their respective baselines (Table 2).

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



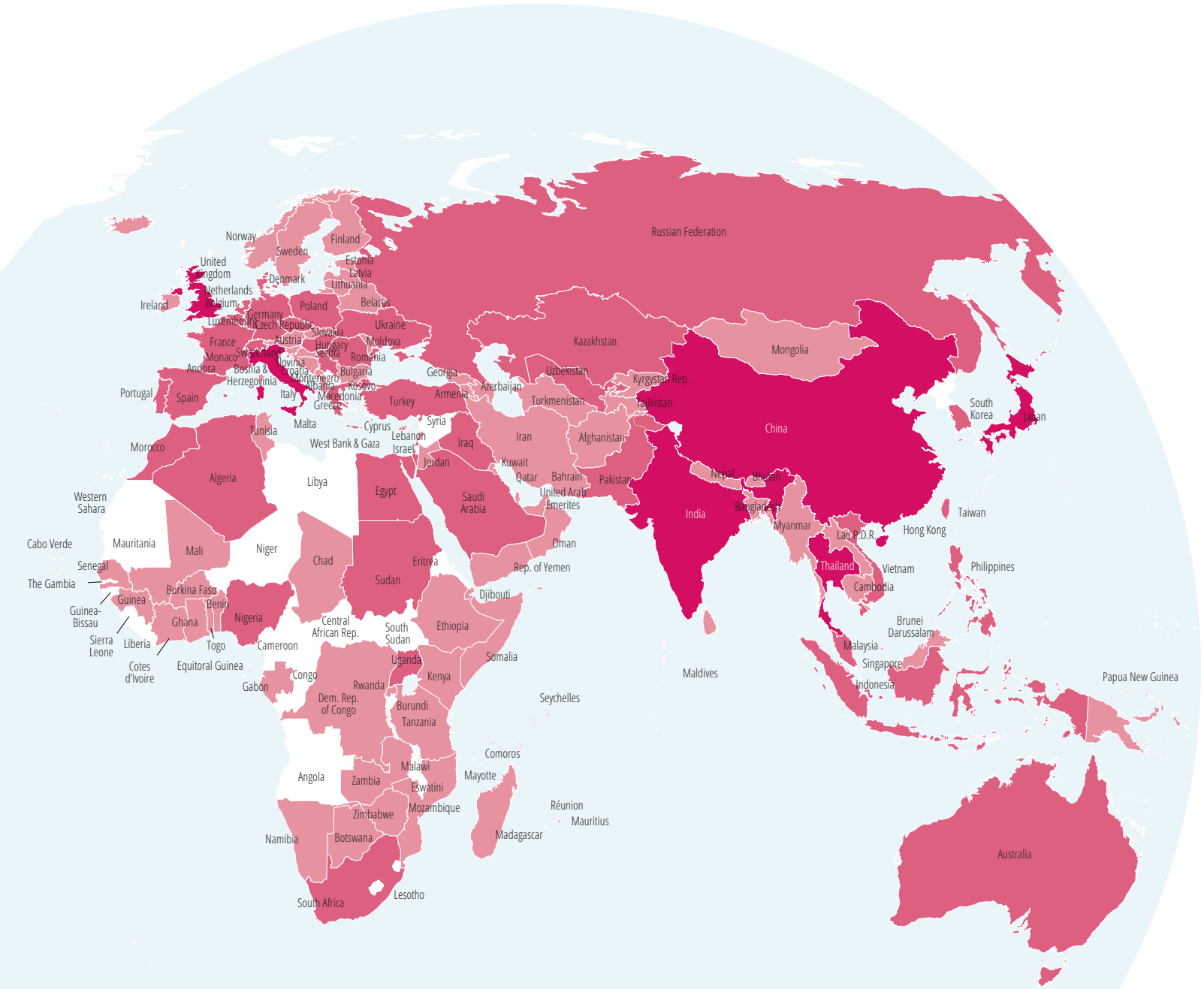

Russian Federation
Norway
Finland
Sweden
United Kingdom
Denmark
Estonia
Latvia
Lithuania
Netherlands
Belgium
Ireland
Poland
Belarus
Germany
Luxembourg
Czech Republic
Ukraine
Slovakia
France
Austria
Hungary
Moldova
Kazakhstan
Mongolia
Switzerland
Monaco
Slovenia
Serbia
Romania
Andorra
Bosnia & Herzegovinia
Croatia
Montenegro
Albania
Bulgaria
Kosovo
Georgia
Azerbaijan
Uzbekistan
Kyrgystan Rep.
Portugal
Spain
Italy
Macedonia
Greece
Turkey
Armenia
Turkmenistan
Tajikistan
South Korea
Japan
China
Malta
Cyprus
Syria
Tunisia
Morocco
West Bank & Gaza
Lebanon
Israel
Iraq
Iran
Afghanistan
Jordan
Kuwait
Qatar
Bahrain
United Arab Emerites
Pakistan
Nepal
Bhutan
Algeria
Libya
Egypt
Saudi Arabia
India
Bangladesh
Myanmar
Taiwan
Hong Kong
Western Sahara
Lao P.D.R.
Cabo Verde
Mauritania
Mali
Niger
Chad
Eritrea
Oman
Thailand
Vietnam
Philippines
Senegal
Sudan
Rep. of Yemen
Cambodia
The Gambia
Burkina Faso
Djibouti
Guinea
Benin
Guinea-Bissau
Nigeria
Ghana
Central African Rep.
South Sudan
Ethiopia
Brunei Darussalam
Malaysia
Sierra Leone
Liberia
Togo
Cameroon
Somalia
Singapore
Uganda
Maldives
Cotes d'Ivoire
Equitoral Guinea
Congo
Kenya
Indonesia
Papua New Guinea
Gabon
Rwanda
Seychelles
Dem. Rep. of Congo
Burundi
Tanzania
Comoros
Malawi
Angola
Zambia
Mayotte
Eswatini
Mozambique
Réunion
Zimbabwe
Mauritius
Namibia
Botswana
Madagascar
Australia
Lesotho
South Africa

**TABLE 1.** Total tonnages for 2018, 2019, 2020, and 2021 reporting periods. Bold figures indicate each Member's baseline year. Tonnages have been rounded to three significant figures.

| | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| **Amcor** | | | **2,360,000** | 2,370,000 |
| **Colgate-Palmolive** | | | **289,000** | 279,000 |
| **CVS Health** | | | | **12,100** |
| **Keurig Dr Pepper** | **208,000** | 230,000 | 230,000 | 243,000 |
| **Kimberly-Clark** | | **111,000** | 106,000 | 86,400 |
| **McDonald's** | **153,000** | 181,000 | 156,000 | 162,000 |
| **Procter & Gamble** | | **605,000** | 609,000 | 679,000 |
| **Starbucks** | 191,000 | **133,000** | 121,000 | 151,000 |
| **The Coca-Cola Company** | **3,010,000** | 3,100,000 | 2,960,000 | 3,220,000 |

**TABLE 2.** Changes in total tonnage normalized by net sales or units sold since each Member's baseline year. See Appendix A for details.

| | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| **Amcor** | | | **Baseline** | -11.3% |
| **Colgate-Palmolive** | | | **Baseline** | -8.7% |
| **CVS Health** | | | | **Baseline** |
| **Keurig Dr Pepper** | **Baseline** | * | -4.4% | -7.3% |
| **Kimberly-Clark** | | **Baseline** | -7.8% | -26.0% |
| **McDonald's** | **Baseline** | * | +2.8% | +0.8% |
| **Procter & Gamble** | | **Baseline** | -4.0% | -0.2% |
| **Starbucks** | | **Baseline** | +2.2% | +3.5% |
| **The Coca-Cola Company** | **Baseline** | -5.4% | +2.2% | -5.0% |

**Changes are calculated relative to 2019 as the normalization factor was unavailable for the baseline year.*

Results in the following sections are reported in relation to *ReSource's* three goals: to eliminate unnecessary plastic, shift to sustainable inputs for remaining plastic, and double global recycling and composting of plastic. All percentages are by weight of plastic. Portfolios differ significantly across *ReSource* Members, which significantly influences the average results presented below. Highlights from the aggregate results include:

- The average use of recycled content across the aggregate portfolio has increased to 10.2% in 2021 from 8.0% in 2020.

- Problematic plastics (small plastics, PS, and PVC) account for 1.3% of the aggregate portfolio, a slight decrease since 2020.

- Based on WWF's waste management model, 34% of *ReSource* Members' plastic footprint is estimated to be recycled, 9% incinerated, 43% landfilled, and 15% mismanaged.:

## FORM AND POLYMER COMPOSITION

The ReSource 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. Key findings include:

- Overall, rigid plastics account for 80.6% of plastics used by *ReSource* Members, with flexibles accounting for the remaining 19.4%.

- PET bottles are the most common packaging type in the aggregate portfolio at 64.5%, followed by LDPE other flexibles at 10.2%.

- PET and LDPE saw significant increases in 2021, while the "Other" polymer category decreased significantly. This was primarily driven by Amcor being able to more accurately categorize the polymers in its multi-material flexible packaging that were previously categorized as "Other."

- The use of problematic plastics, which for the purposes of this analysis include small plastics, PS, and PVC, decreased slightly from 94,200 metric tons (1.4% of the portfolio) in 2020 to 91,100 metric tons (1.3%) in 2021.

- Of this, small plastics, which are defined as being smaller than 2 inches in two dimensions,[8] account for 33,100 metric tons (0.5% of the portfolio), down from 34,500 metric tons in 2020. For *ReSource* Members, small plastics primarily consist of straws, cutlery, beverage stirrers/plugs, and specialty containers. These small plastics require testing to be considered recyclable, as small plastics are often not incorporated into the recycling stream because of their size.[9]

## 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, responsibly sourced biobased content,[10] and other innovative materials in the future. In this report, recycled content only refers to post-consumer recycled content, unless otherwise specified. Key findings include:

- Recycled content has increased to 10.2% of the aggregate portfolio in 2021 from 8.0% in 2020. The use of recycled content ranges from 0.8% to 14.2% across *ReSource* Members.

- 97% of the reported recycled content is in bottles, up from 96% in 2020.

- 33% of recycled content was reported in North America, 29% in Latin America and the Caribbean, and 26% in Europe and Central Asia.

- Biobased content comprises 0.2% of the aggregate portfolio, down from 0.4% in 2020. The use of biobased content ranges from 0.0% to 2.1% across *ReSource* Members.

- In 2021, 65% of the biobased content was specified as being responsibly sourced.

- 65% of biobased content is reported in bottles, followed by 12% from other rigids. In 2020, 80% of biobased content was reported in flexibles and 16% was reported in bottles.

**FIGURE 3.** Polymer breakdown by form category for *ReSource* Members' aggregate portfolio. The Other category includes anything categorized "Other," as well as PETG, PVC, LLDPE, PLA, and EVOH, due to low reported volumes.

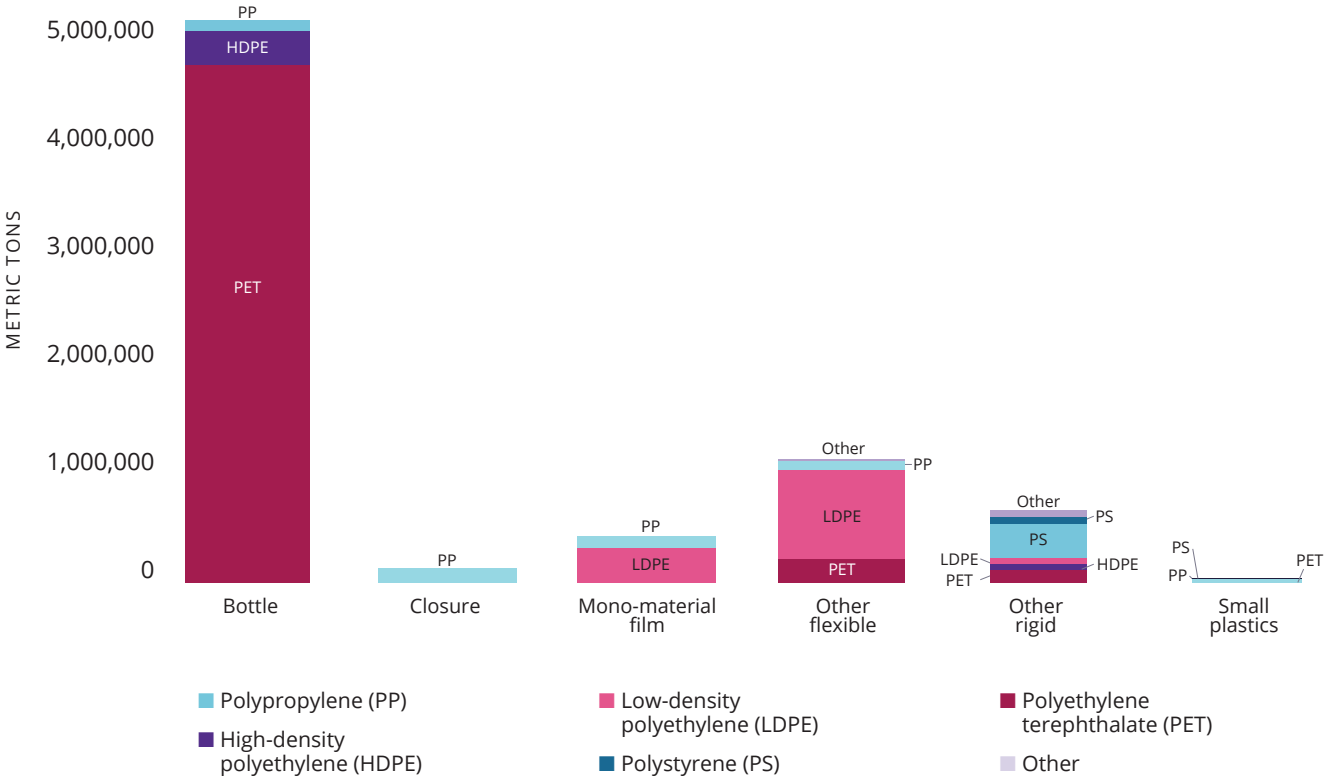
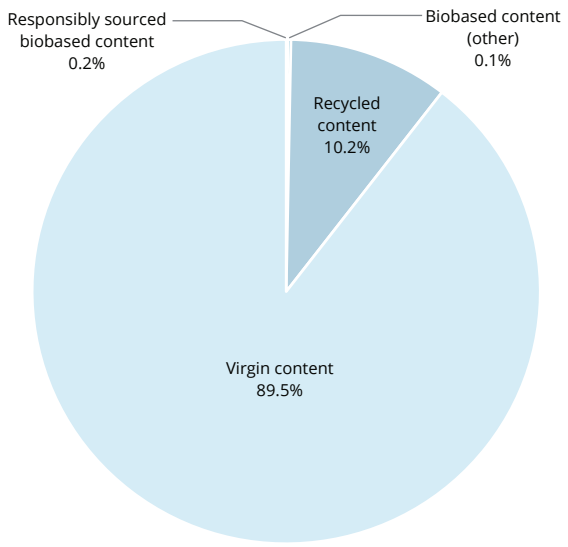



**TABLE 3.** Polymer breakdown by form category for *ReSource* Members' aggregate portfolio. The Other category includes anything categorized "Other," as well as PETG, PVC, LLDPE, PLA, and EVOH, due to low reported volumes.

| | PET | HDPE | LDPE | PP | PS | Other | Total by Form Category |
|---|---|---|---|---|---|---|---|
| **Bottle** | 64.5% | 4.4% | 0.0% | 1.2% | 0.0% | 0.0% | **70.2%** |
| **Other flexible** | 3.0% | 0.0% | 10.2% | 0.8% | 0.0% | 0.3% | **14.3%** |
| **Other rigid** | 1.6% | 0.7% | 0.6% | 4.1% | 0.8% | 0.9% | **8.7%** |
| **Mono-material film** | 0.0% | 0.1% | 3.6% | 1.5% | 0.0% | 0.0% | **5.2%** |
| **Closure** | 0.0% | 0.0% | 0.0% | 1.1% | 0.0% | 0.0% | **1.2%** |
| **Small plastics** | 0.1% | 0.0% | 0.0% | 0.2% | 0.1% | 0.0% | **0.5%** |
| **Raw material** | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** |
| **Rigid foam** | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | **0.0%** |
| **Total by polymer** | **69.2%** | **5.3%** | **14.5%** | **8.9%** | **0.9%** | **1.2%** | **100.0%** |

**FIGURE 4.** Breakdown of recycled, biobased, and virgin content for *ReSource* Members' aggregate portfolio.




## WASTE MANAGEMENT OUTCOMES

The waste management pathways are estimated using WWF's waste management model and are based on country-level waste management data and the amounts and types of plastic sold by Members in each country. The analysis is intended to help WWF and *ReSource* Members identify opportunities in key geographies to eliminate or substitute plastics at high risk of mismanagement, design local recycling or composting infrastructure, and invest in improving waste management systems. Because the analysis is tailored specifically to *ReSource* Members and their particular portfolios, the results will deviate significantly from the overall waste management situation globally or in specific regions, and this is an important aspect of the insights provided by the model.

The estimated recycling rate of *ReSource* Members' aggregate plastic footprint remains higher, at 43%, than the global estimate of plastic collected for recycling (14%) reported in The Pew Charitable Trusts and SYSTEMIQ's Breaking the Plastic Wave report (Figure 5).[11] This is largely due to the aggregate portfolio of *ReSource* Members being disproportionately comprised of highly recyclable plastics, particularly PET bottles (Figure 3). PET bottles account for 65% of the *ReSource* portfolio but only 17% of the global plastic packaging market.[12]

Similarly, the overall waste management outcomes are influenced by the fact that 35% of the aggregate footprint is located in the United States, which has a disproportionately high estimated landfill rate (65%) and low mismanagement rate (2%) compared to the global average. Despite the relatively low mismanagement rate, the high sales volume means that the United States is still among the five countries with the highest estimated tonnage of mismanaged waste for *ReSource* Members. Overall for *ReSource* Members, the estimated mismanagement and incineration rates are lower than the global average, while the recycling and landfill rates are higher.

Since 2020, changes in the *ReSource* Members' overall portfolio, including an increase in the proportion of PET and HDPE bottles, have resulted in slight changes to the waste management outcomes. The share of the portfolio that was estimated to be recycled increased from 32% in 2020 to 34% in 2021, while the other waste management outcomes decreased slightly.

Waste management pathways were further calculated with the distinction between rigids and flexible plastics (Figure 6). The difference in recycling rates between rigids (41%) and flexibles (3%) reflects the trend that rigid plastics, and particularly bottles, which account for 70% of the aggregate portfolio of *ReSource* Members (up from 67% in 2020), continue to be recycled at a higher rate than flexible plastics. Meanwhile, flexibles are estimated to be incinerated, landfilled, and mismanaged at higher rates than rigids.

**FIGURE 5.** Estimated waste management outcomes for *ReSource* Members' 2021 aggregate plastic footprint compared to global plastic flow estimates in The Pew Charitable Trusts and SYSTEMIQ's Breaking the Plastic Wave report, including material collected for recycling.[13]

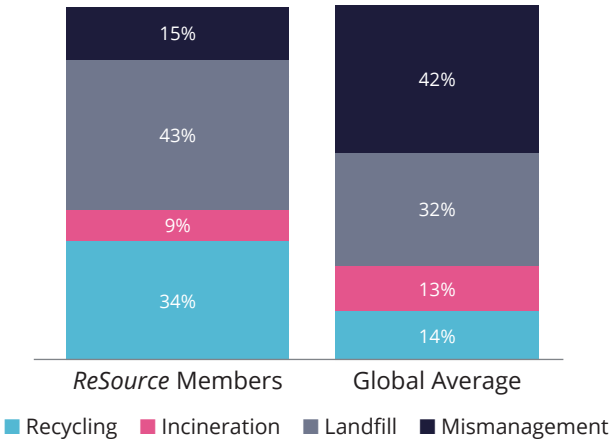


**FIGURE 6.** Waste management outcomes for rigid versus flexible plastics for *ReSource* Members

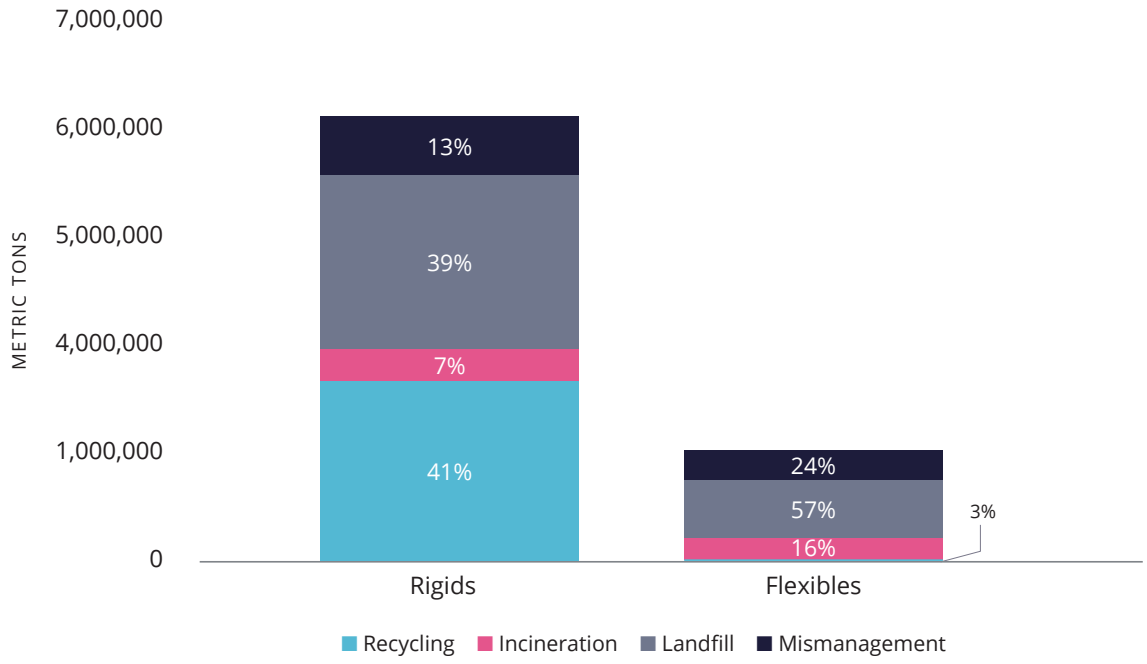



**TABLE 4.** Estimated waste management breakdown by region for *ReSource* Members' 2021 aggregate plastic footprint.[14, 15, 16]

| REGION | RECYCLING RATE | INCINERATION RATE | LANDFILL RATE | MISMANAGED RATE |
|---|---|---|---|---|
| East Asia & Pacific | 42% | 7% | 15% | 36% |
| Europe & Central Asia | 39% | 18% | 34% | 9% |
| Latin America & Caribbean | 41% | 0% | 49% | 10% |
| Middle East & North Africa | 22% | 0% | 44% | 34% |
| North America | 21% | 13% | 64% | 2% |
| South Asia | 51% | 0% | 6% | 44% |
| Sub-Saharan Africa | 36% | 0% | 17% | 47% |

## 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 7 and outlined in Appendix B). These regional waste management estimates are based on the geographical distribution of sales and proportions of plastic types within the aggregate portfolio of *ReSource* Members and thus are not meant to be representative of the end life of plastics across all sectors in these regions.

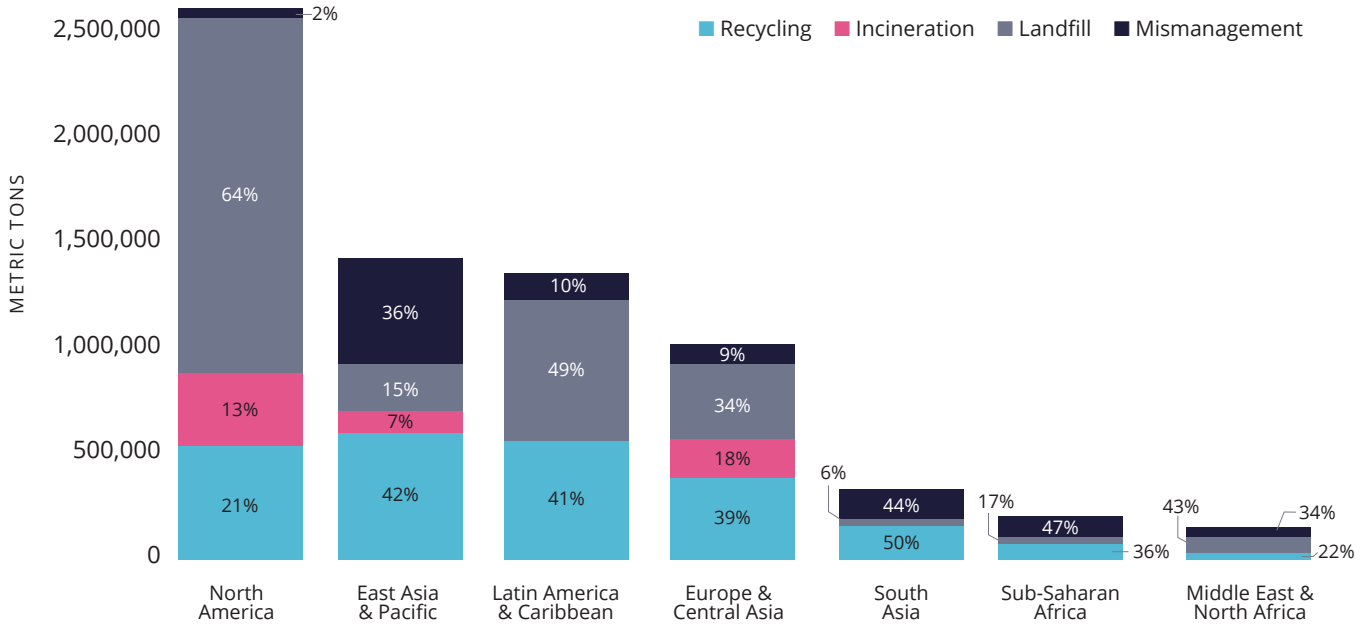
Regionally, *ReSource* Members' aggregate plastic footprint is most heavily concentrated in North America, with 37% of the total tonnage. Because all Members have a large presence in North America, this is the region where there is the most diversity of plastic types in the aggregate portfolio and thereby where the estimated waste management outcomes more closely resemble regional averages.

East Asia and Pacific is the second largest region, accounting for 20% of the total tonnage, with China being the second largest individual market, accounting for 10%. This region has a relatively high estimated proportion of the portfolio being recycled (42%), driven by high PET bottle recycling rates in countries like China, Japan, and Korea, but also high estimated mismanagement (36%) driven by the mismanagement rates in countries like China, Thailand, and the Philippines. Given both the relatively large sales volume and high mismanagement rate, China continues to be the country with the highest estimated total tonnage of mismanaged waste for *ReSource* Members.

There is a similar situation of both high estimated rates of recycling and mismanagement in other regions such as South Asia and Sub-Saharan Africa. This is driven by a high proportion (typically 70%-95%) of the aggregate portfolio in these countries being PET bottles, and our model having to reconcile both high reported rates of PET bottle recycling and high rates of mismanagement of plastic. Although true for the results in general, the estimates for these regions especially are uncertain due to limited and often conflicting waste management data and are not representative of the regions' overall waste management situation.

For more information about the country-level data and assumptions informing the waste management model, please see the ***ReSource Footprint Tracker Methodology Overview*** and the assumptions.

**FIGURE 7.** Estimated waste management outcomes by region for *ReSource* Members.



## Progress: Principal Members

Because *ReSource* has been adding new Members every year, annual changes in the aggregate portfolio are generally influenced more by the addition of these companies' portfolios than by changes in the portfolios of existing Members. This makes it difficult to track progress over time, which is why in this section we focus just on the year-over-year changes for the five Principal Members: Keurig Dr Pepper, McDonald's, Procter & Gamble (P&G), Starbucks, and The Coca-Cola Company. All percentages are by weight of plastic. Portfolios differed significantly across *ReSource* Principal Members, which significantly influenced the average results presented below. Note that P&G's baseline aligned most closely with the 2019 reporting year, so the results for 2018 only include the remaining four Principal Members.

### FORM AND POLYMER COMPOSITION

The polymer distribution across the Principal Members' portfolios has experienced some changes over the four reporting periods (Figure 8).

- LDPE decreased from 4.6% in 2019 to 2.7% in 2021.
- The proportion of PET has remained relatively consistent but decreased slightly from 81.8% in 2019 to 80.3% in 2021.
- The proportion of polystyrene also decreased from 1.5% in 2019 to 0.7% 2021.

The tonnage of problematic plastic by Principal Members has been declining over the past four reporting periods.

- In 2018, problematic plastic made up 3.2% (114,000 metric tons) of the aggregate portfolio. This decreased to 1.0% (45,200 metric tons) in 2021.
- Polystyrene makes up a majority of the reported problematic plastic, with 30,700 metric tons reported in 2021.

**FIGURE 8.** Tonnages by polymer reported by Principal Members for 2018, 2019, 2020, and 2021 reporting periods. As P&G's baseline data are reported for 2019, the other four Principal Members are the exclusive contributors to the 2018 aggregate data. The Other category includes anything categorized "Other," as well as PETG, LLDPE, PLA, nylon, PC, PHA, and PVC, due to low reported volumes.

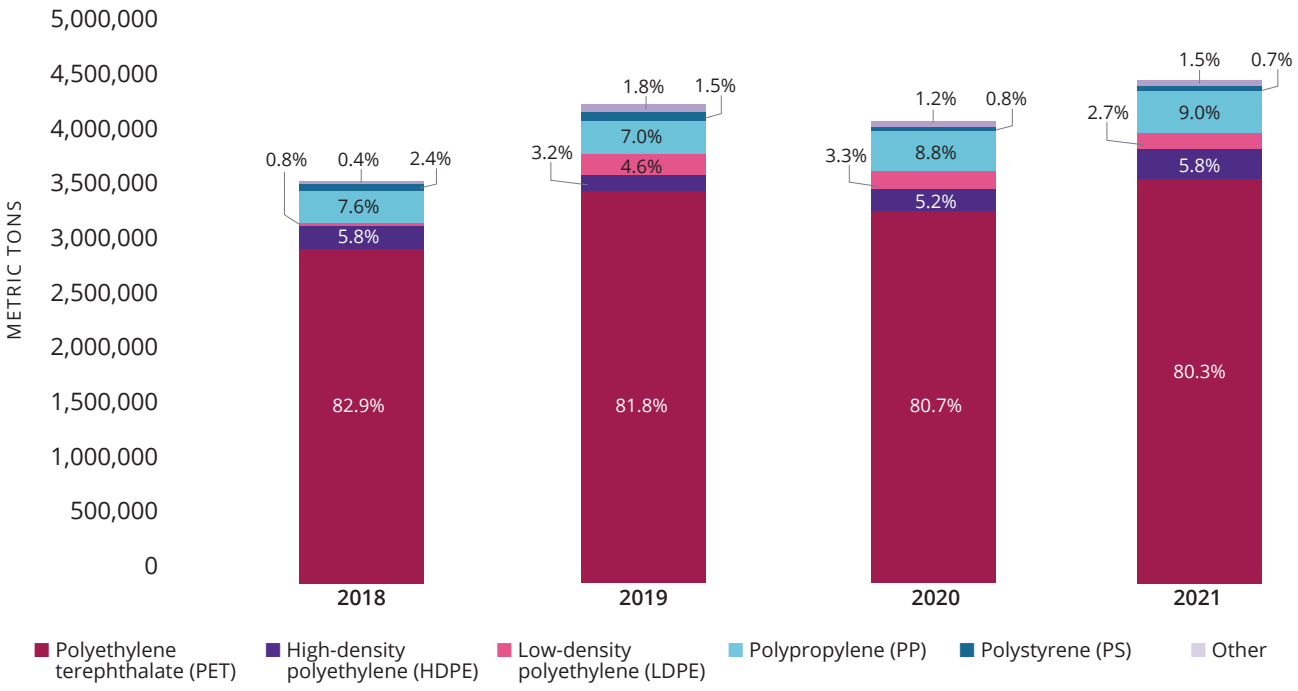


**FIGURE 9.** Tonnages by form type reported by Principal Members for 2018, 2019, 2020, and 2021 reporting periods. As P&G's baseline data are reported for 2019, the other four Principal Members are the exclusive contributors to the 2018 aggregate data.

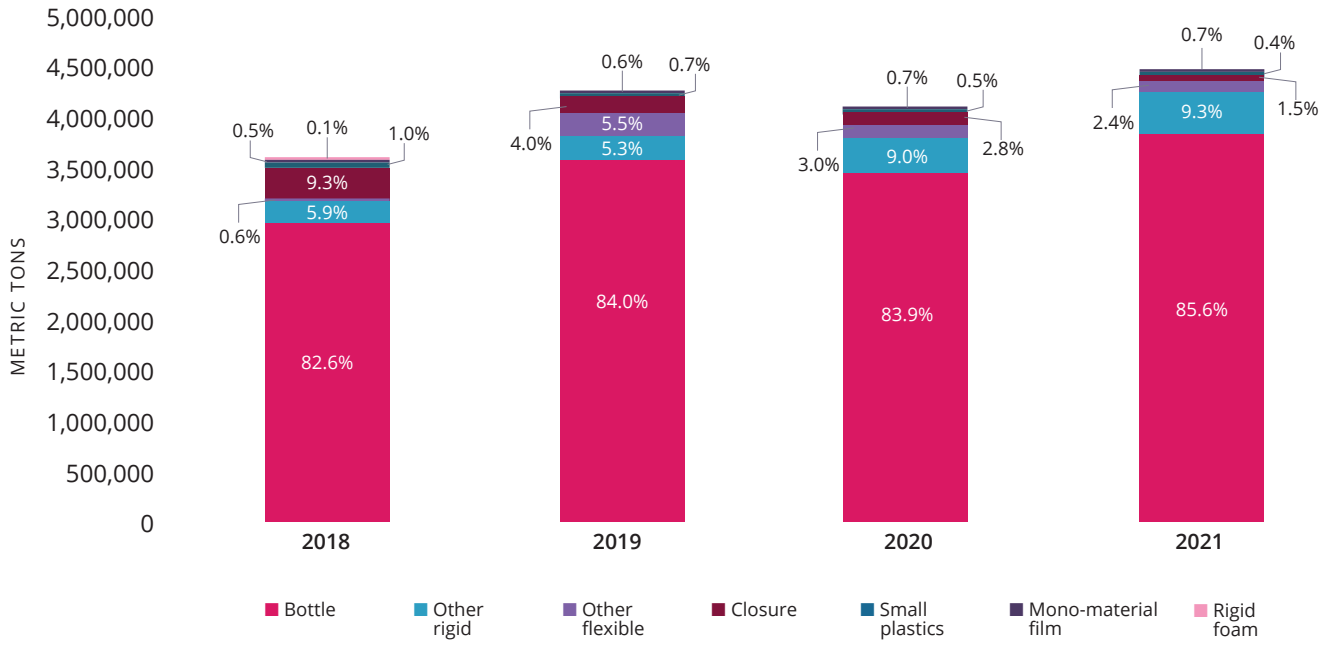
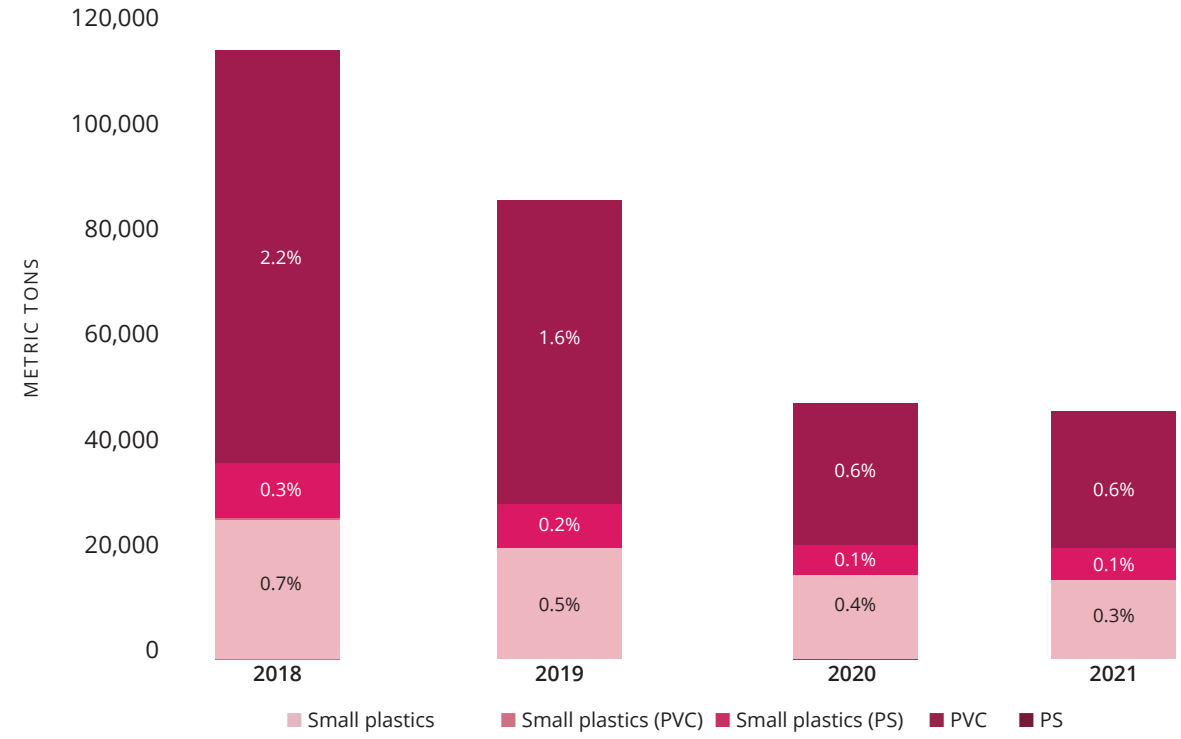



**FIGURE 10.** Tonnages of problematic plastics reported by Principal Members for 2018, 2019, 2020, and 2021 reporting periods. As P&G's baseline data are reported for 2019, the other four Principal Members are the exclusive contributors to the 2018 aggregate data.



### Sustainable Inputs

Over the reporting periods, the percentage of sustainable inputs reported in the portfolios of the Principal Members also changed (Figure 11).

- Notably, the use of post-consumer recycled content increased from 8.1% in 2019 (343,000 metric tons) to 12.5% in 2021 (559,000 metric tons).
- Overall, the use of biobased content decreased from 1.3% (56,000 metric tons) in 2019 to 0.4% (17,300 metric tons) in 2021.
- Although the percentage of virgin fossil-based content decreased from 90.6% in 2019 to 87.1% in 2021, the tonnage of virgin fossil-based plastic increased by about 35,300 metric tons during the same period due to an increase in overall tonnage.

### Waste Management Outcomes

Among Principal Members, waste management outcomes have remained consistent since initial reporting in 2018 and remain within 1% of the outcomes reported in 2020. Similar to the pattern observed across all *ReSource* Members, the recycling rate among Principal Members remains higher than the global average, while the mismanagement rate remains lower, driven by portfolio composition and regional volumes as discussed above.

**FIGURE 11.** Tonnages by sustainable input reported by Principal Members for 2018, 2019, 2020, and 2021 reporting periods. As P&G's baseline data are reported for 2019, the other four Principal Members are the exclusive contributors to the 2018 aggregate data.

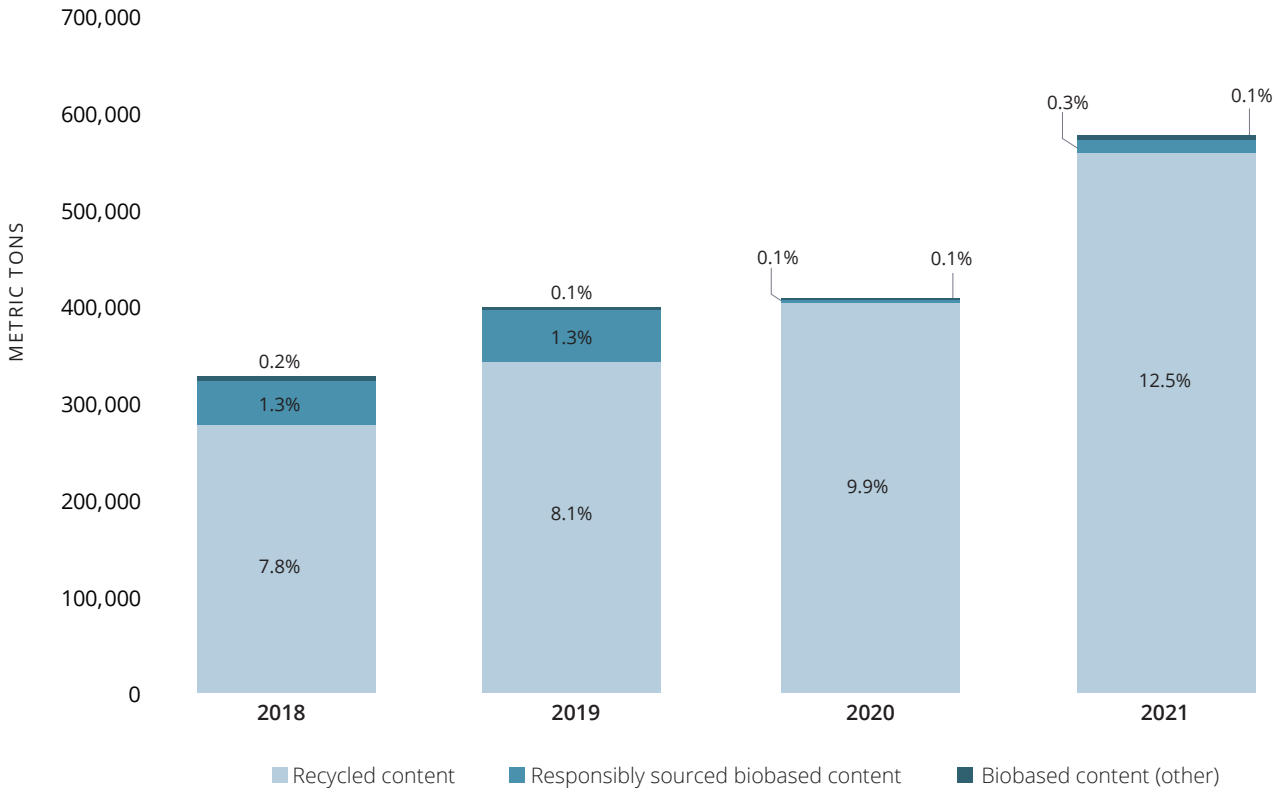
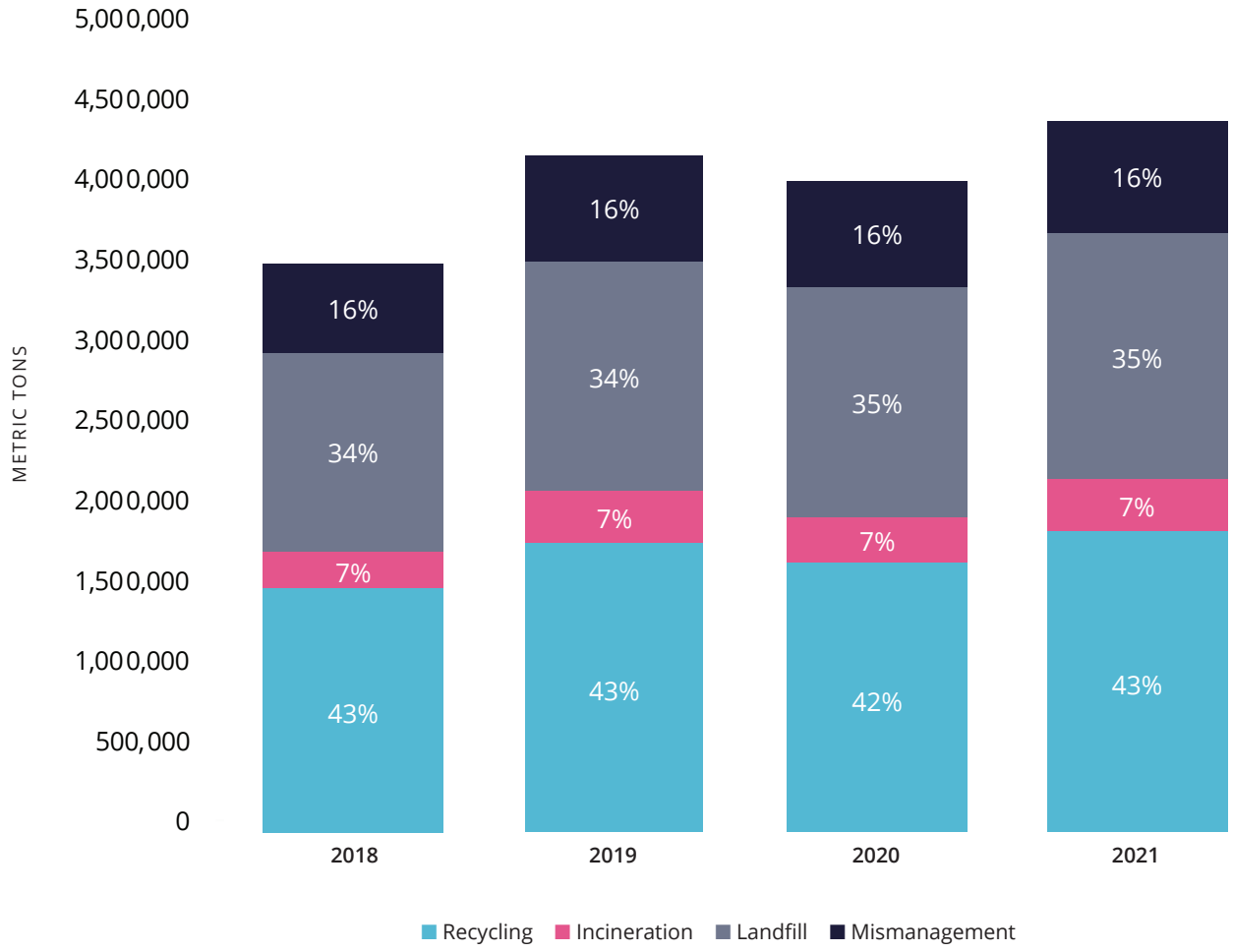


**FIGURE 12.** Tonnages by input reported by Principal Members for 2018, 2019, 2020, and 2021 reporting periods. As P&G's baseline data are reported for 2019, the other four Principal Members are the exclusive contributors to the 2018 aggregate data. Individual numbers are rounded, so they may not add up to 100%.



# Individual Member Footprints & Progress

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

## Amcor

The data provided by Amcor cover flexible and rigid packaging produced by the company, accounting for an estimated 83% of the company's operations. Secondary packaging, tertiary packaging, and Amcor's Specialty Cartons business are out of scope for this assessment. The reported data cover the period July 1, 2021, through June 30, 2022.

Key changes to Amcor's portfolio include:

- In 2020, plastic categorized as "other" polymers represented 36.0% of its portfolio. This decreased to 0.03% in 2021, while PET increased from 44.4% to 55.1% and LDPE increased from 7.1% to 32.8%. This was primarily due to Amcor being able to more accurately categorize the polymers in its multi-material flexible packaging.
- The other flexible category decreased from 42.7% in 2020 to 36.4% in 2021, while the mono-material film category increased from 6.4% in 2020 to 11.0% in 2021.
- Amcor increased its use of recycled content from 4.5% in 2020 to 5.6% in 2021.

### INSIGHTS ON AMCOR'S PROGRESS

To eliminate problematic or unnecessary packaging, Amcor has continued the rollout of Eco-Tite® R, a PVDC-free recyclable shrink bag for meat and cheese, to additional product lines and has qualified an alternative to carbon black for CPET trays in North America to enable sortation at MRFs.

On sustainable inputs, Amcor has increased the usage of rPET, resulting in 11.6% PCR usage by weight in its rigid packaging. The company also launched its first PCR PP product and incorporated PCR into film packaging products.

Additionally, Amcor has expanded its portfolio of recycle-ready products, increased sales of reusable packaging by 5% in weight, and launched its first compostable rigids over the reporting period.

### AMCOR OVERVIEW & GOALS

*Amcor believes that sustainability goes far beyond the products that it makes. 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 its packaging being recyclable or reusable by 2025, and, since making that commitment, it has gone further. By carefully selecting the raw materials used, considering the life cycle impacts of its packaging, and designing for optimal end-of-use, Amcor continues to demonstrate its leadership in responsible packaging.*
- *Amcor has committed to increase its use of PCR resins across its portfolio from a target of 10% by 2025 to 30% by 2030.*
- *By 2030, Amcor will reduce its greenhouse gas emissions intensity by 60% compared to a 2006 baseline and has committed to net zero carbon emissions by 2050.*

**FIGURE 13.** Inputs, form, and polymer distribution of Amcor's plastic portfolio in 2021.

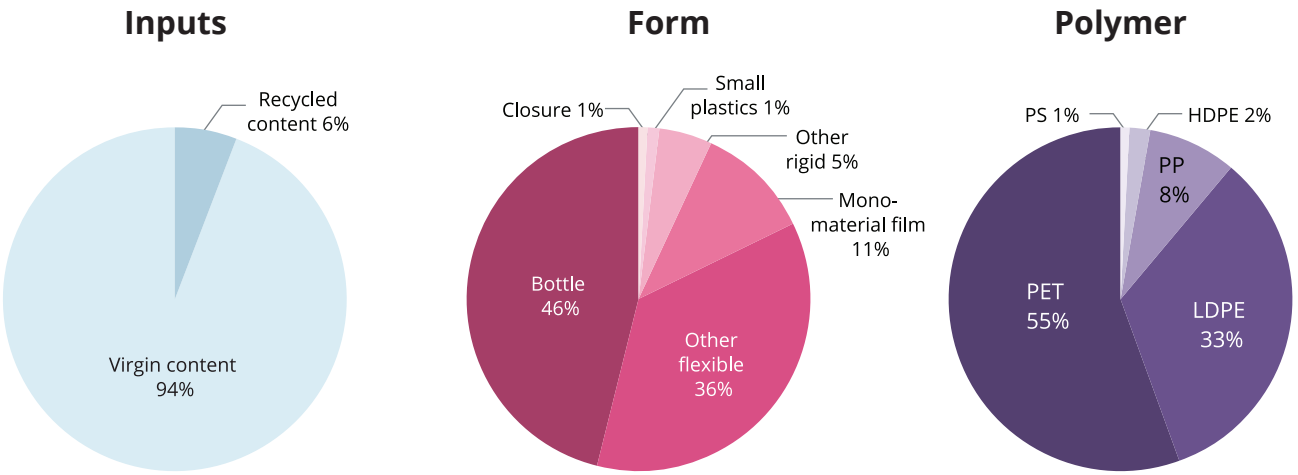
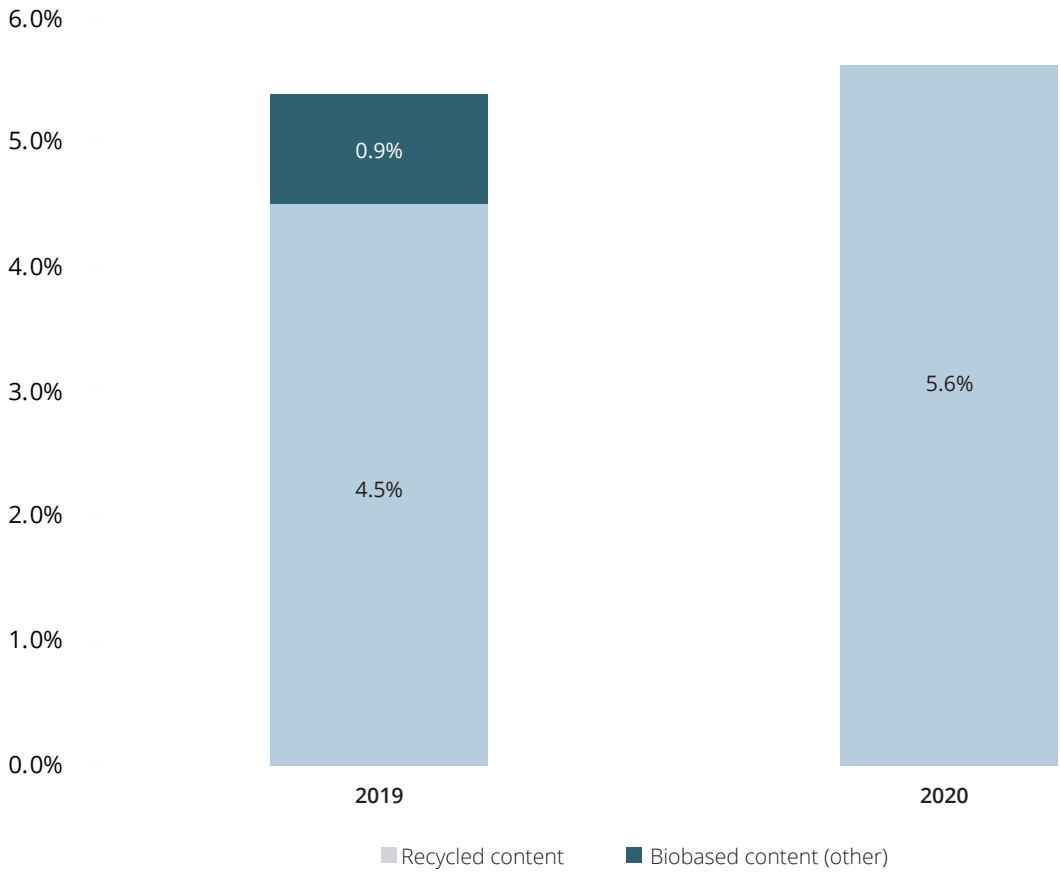



**FIGURE 14.** Use of sustainable inputs in Amcor's plastic portfolio from 2020 to 2021.





## Colgate-Palmolive

The data provided by Colgate-Palmolive cover production happening in the company's facilities, accounting for an estimated 98% of the company's operations. Secondary and tertiary packaging are included in the reported data. The company's EltaMD, Filorga, hello, and PCA Skin businesses as well as co-packer packaging are out of scope for this assessment. The reported data cover the period January 1, 2021, through December 31, 2021.

Key changes to Colgate-Palmolive's portfolio include:

- In 2020, post-consumer recycled content comprised 10% of Colgate-Palmolive's plastic inputs. This increased to 14.2% in 2021.
- In 2021, bottles (primarily PET and HDPE) were the most common form category, accounting for 50.2% of Colgate-Palmolive's portfolio, down from 51.6% in 2020. This was followed by other rigids (primarily PE tooth-paste tubes) at 20.3% in 2021, up from 16.9% in 2020.
- Colgate-Palmolive's use of PVC decreased to less than 0.1% in 2021.

### INSIGHTS ON COLGATE-PALMOLIVE'S PROGRESS

As of year-end 2021, Colgate-Palmolive has eliminated using PVC in 99.9% of packaging by weight and has developed plans to exit the remaining uses where there is a technical challenge related to product safety. The company has also continued to reduce the use of plastic. The company reduced the weight of their toothpaste tubes in Thailand by up to 16% in 2021 through optimizing the design.

In 2021, Colgate-Palmolive's use of post-consumer recycled plastic in packaging reached 14.2%. In 2021, the company used recycled content in about half of the PET packaging of its Oral, Personal, and Home Care products.

In order to increase the recyclability of its portfolio, Colgate-Palmolive increased the percentage of clear PET plastic bottles from 94% in 2020 to 98% in 2021 and increased the percentage of toothpaste tubes that are recognized as recyclable by The Association of Plastic Recyclers or Plastics Recyclers Europe from 1% to 7% between 2020 and 2021.

### COLGATE-PALMOLIVE OVERVIEW & 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 over 50 corre-sponding targets.*

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

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

**FIGURE 15.** Inputs, form, and polymer distribution of Colgate-Palmolive's plastic portfolio in 2021.

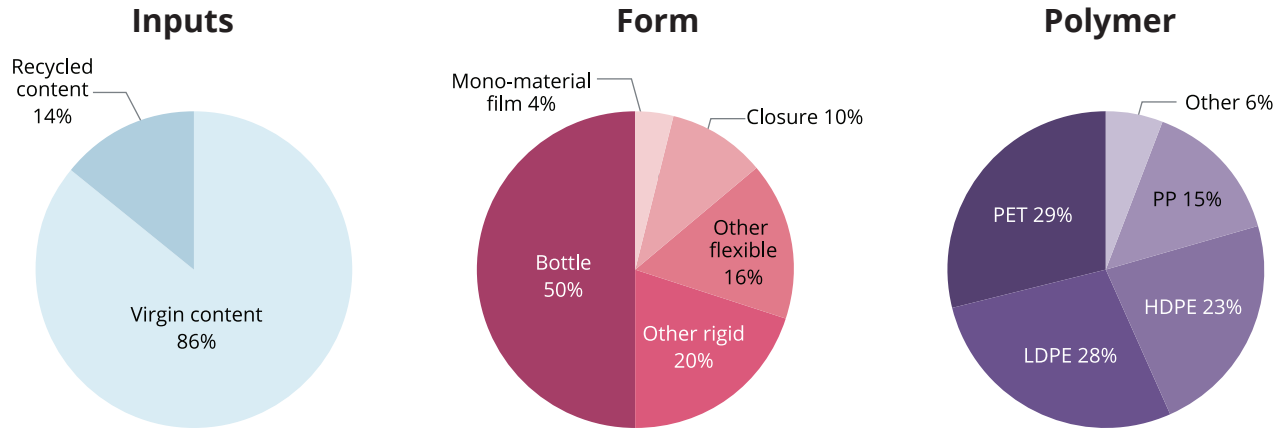
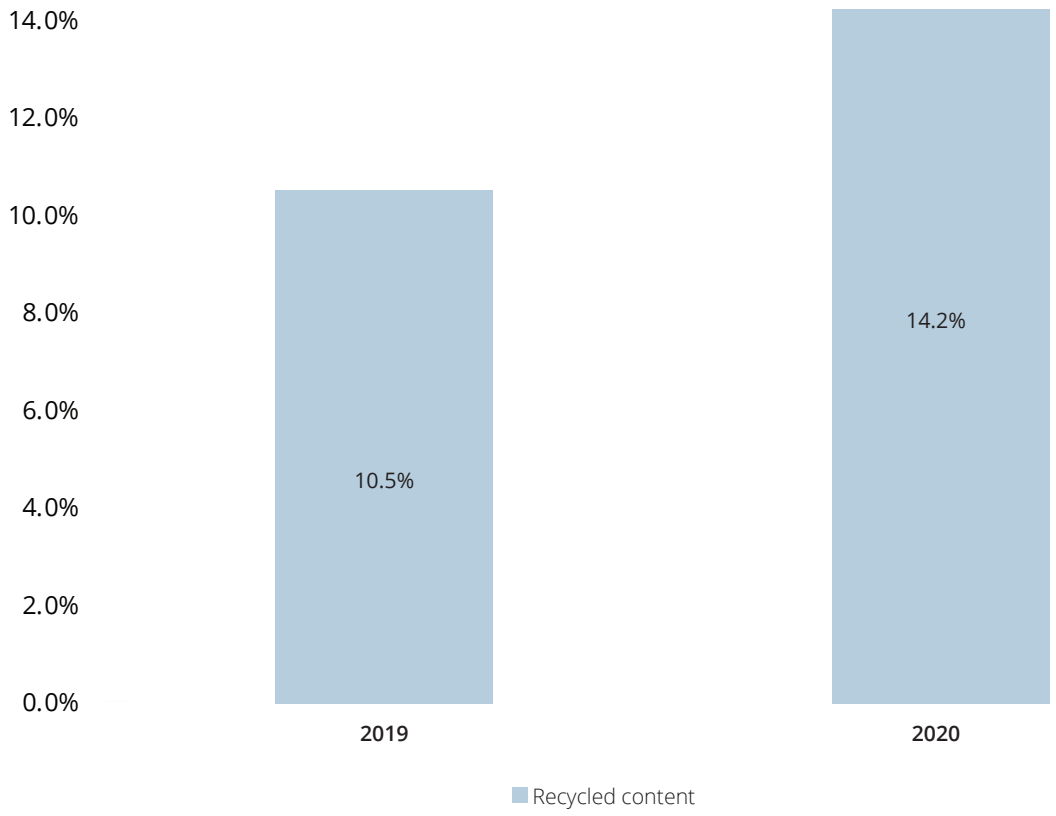



**FIGURE 16.** Use of post-consumer recycled content in Colgate-Palmolive's plastic portfolio from 2020 to 2021.



## Keurig Dr Pepper (KDP)

The data provided by Keurig Dr Pepper cover 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 cover the period January 1, 2021, through December 31, 2021.

Key changes to Keurig Dr Pepper's portfolio include:

- In 2018, recycled content comprised 0.3% of Keurig Dr Pepper's portfolio. This increased to 0.4% in 2019 and 2.0% in 2020, and increased significantly to 11% in 2021.
- In 2021, bottles made up 75.2% of Keurig Dr Pepper's portfolio, which increased from 68.1% in 2020. Flexibles saw a decrease from 7.4% in 2020 to 4.8% in 2021.
- Keurig Dr Pepper has almost completely eliminated polystyrene from its portfolio (less than 0.1% in some store display packaging). This is a decrease from 16.0% in 2018 and 0.6% in 2020.

### INSIGHTS ON KEURIG DR PEPPER'S PROGRESS

Over the reporting period, KDP made progress against its goal to convert 100% of its entire packaging portfolio to be recyclable or compostable, primarily through design improvements that replaced problematic labels on select PET bottles. Specifically, KDP used shrink sleeve labels on its redesigned Snapple 16 oz. and Core Hydration bottles that are compatible with the PET recycling process.

Progress toward the company's goal of 25% PCR plastic content in packaging by 2025 was primarily the result of completing the transition of those same Core Hydration, 16 oz. Snapple, and several Aguafiel varieties to bottles made of 100% rPET plastic. This reduced the need to use approximately 57 million pounds of virgin plastic in 2021.[17]

KDP is also creating and testing innovative packaging solutions that will further eliminate problematic or unnecessary plastic packaging. In 2021, KDP partnered with packaging manufacturer PAPACKS to accelerate development of KDP's first fully recyclable and/or compostable paper bottle.

### KEURIG DR PEPPER OVERVIEW & 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:*

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

**FIGURE 17.** Inputs, form, and polymer distribution of Keurig Dr Pepper's plastic portfolio in 2021.

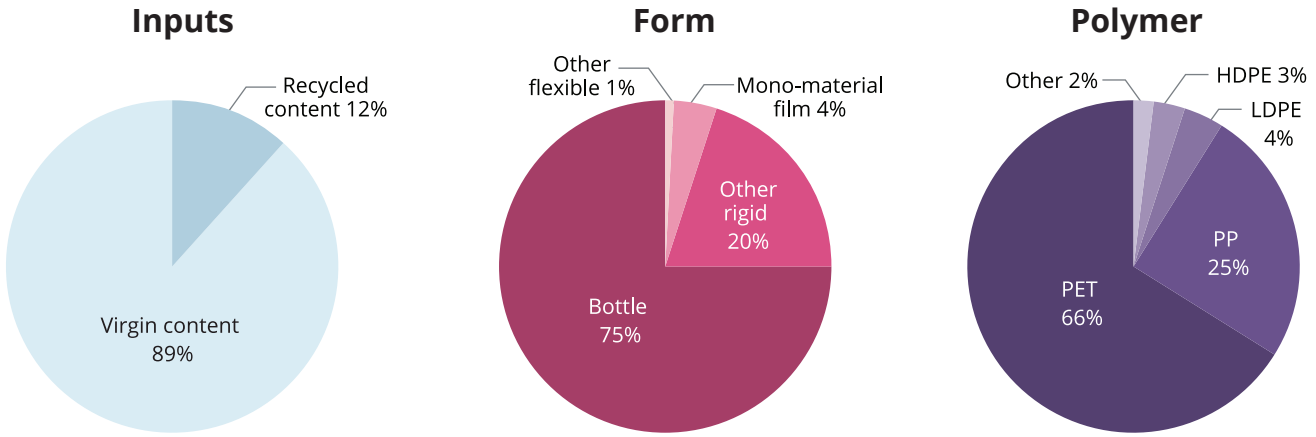
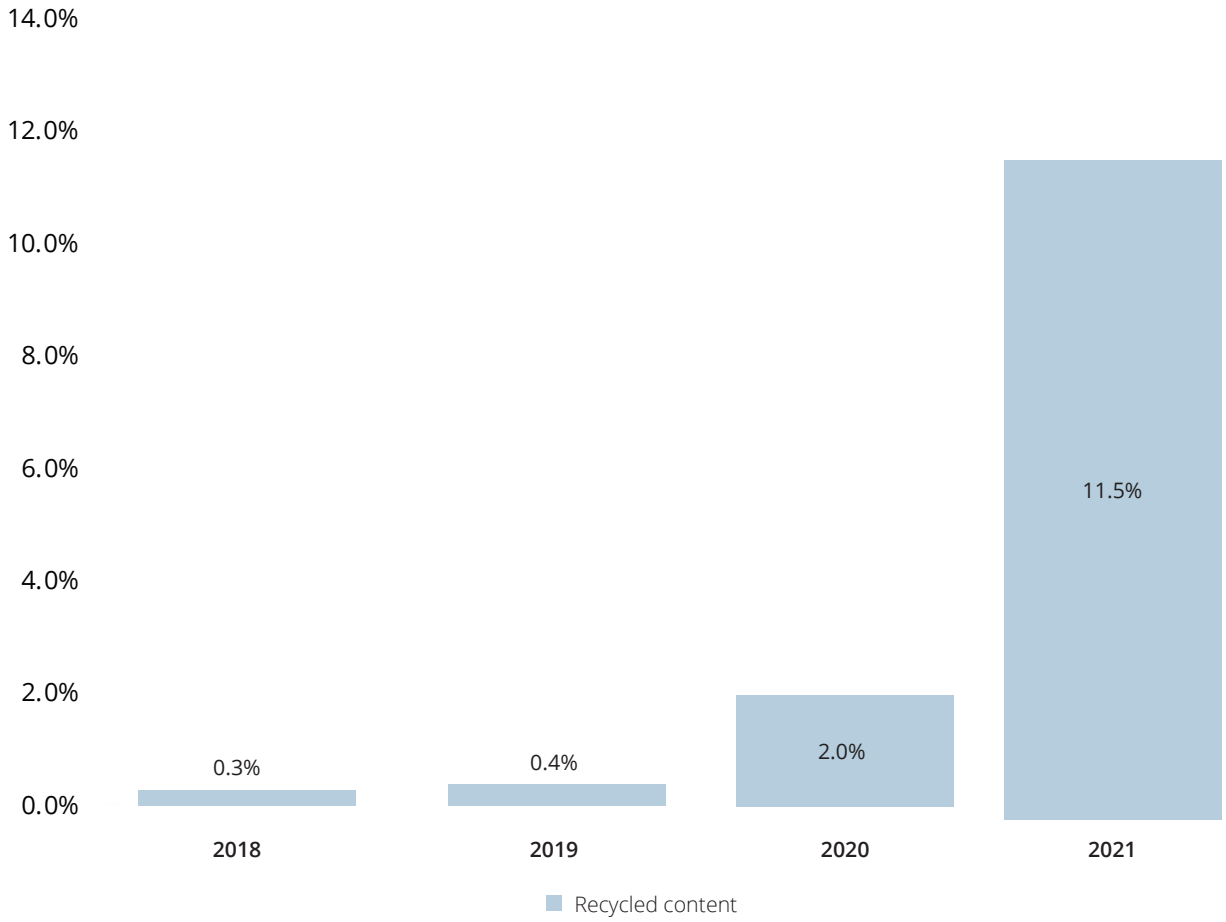



**FIGURE 18.** Use of post-consumer recycled content in Keurig Dr Pepper's plastic portfolio from 2018 to 2021.



## Kimberly-Clark

The data provided by Kimberly-Clark cover the company's global consumer and professional products businesses, accounting for an estimated 95% of the company's operations. Secondary and tertiary packaging are included in the reported data. The company's feminine care primary product wrappers are out of scope for this assessment. The reported data cover the period January 1, 2021, through December 31, 2021.

Key changes to Kimberly-Clark's portfolio include:

- In 2019, recycled content comprised 1.9% of Kimberly-Clark's portfolio. This increased to 2.5% in 2020 and to 3.1% in 2021.
- Driven primarily by a reduction in the bottle and other rigid categories, polypropylene decreased from 16.9% in 2020 to 4.0% in 2021.
- LDPE increased from 67.5% in 2020 to 80.3% in 2021, which was driven by an increase in mono-material films.

### INSIGHTS ON KIMBERLY-CLARK'S PROGRESS

Kimberly-Clark continued its work to explore more sustainable, commercially viable, and scalable alternatives to fossil fuel-based plastics. One example of how the company is tackling this innovation challenge is through a partnership with RWDC Industries, which combines Kimberly-Clark's deep expertise in nonwoven technologies and resin development with RWDC's innovative marine- and soil-biodegradable biopolymer solutions. This collaboration could help unlock future innovation and material solutions needed to replace traditional fossil fuel-based plastics in the company's hygiene products with materials that can be more effectively managed after use. In 2021, the company further increased the amount of packaging globally that is reusable, recyclable, or compostable to nearly 84%, as it strives for 100% by 2025.

### KIMBERLY-CLARK OVERVIEW & GOALS

*Kimberly-Clark is a global consumer packaged goods manufacturer that is known for its essential brands that include Huggies®, Kleenex®, Cottonelle®, Depend®, and Andrex®. Driven by the company's purpose to deliver Better Care for a Better World and its global ambition to uplift the lives of 1 billion people in vulnerable and underserved communities by 2030, Kimberly-Clark aspires to develop innovative materials and alternatives to traditional plastics while supporting the development of the circular economy.*

*The company's strategic focus includes three key areas: Packaging, Product, and Circular Systems. Kimberly-Clark is committed to reducing its plastics footprint by 50% by 2030 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, strategic 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 the end of 2022*

**FIGURE 18.** Inputs, form, and polymer distribution of Kimberly-Clark's plastic portfolio in 2021.

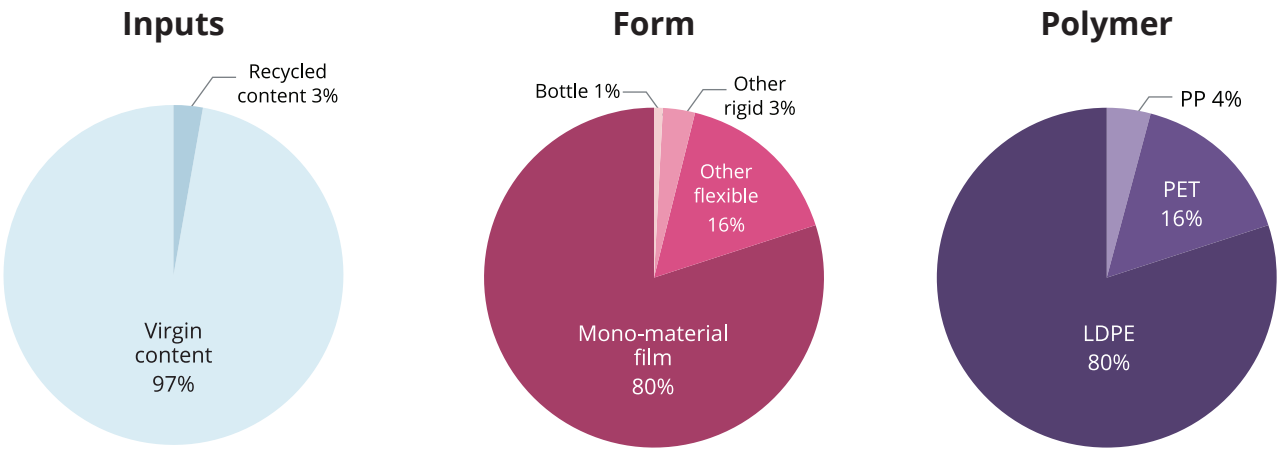
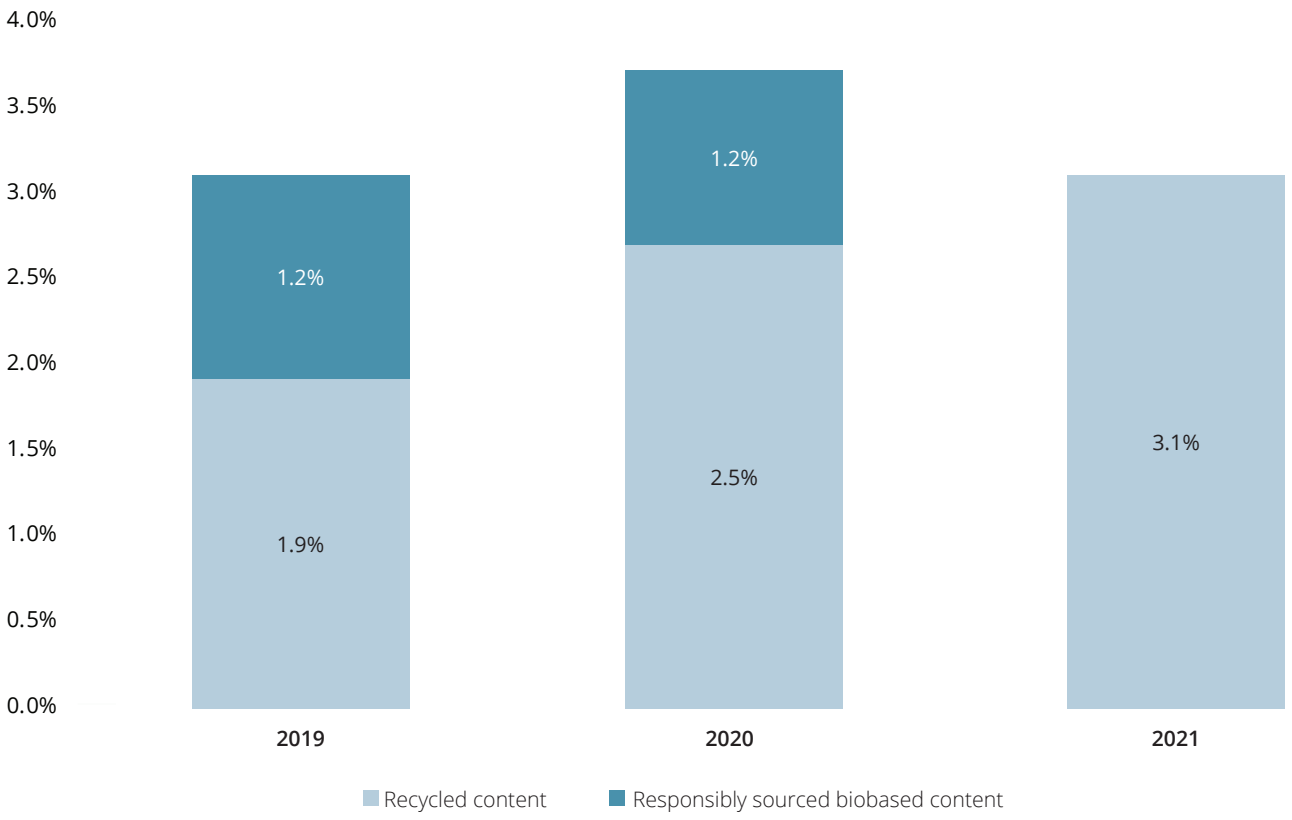



**FIGURE 19.** Use of sustainable inputs in Kimberly-Clark's plastic portfolio from 2019 to 2021.



## McDonald's Corporation

The data provided by McDonald's Corporation cover consumer-facing plastic packaging in 23 countries representing more than 85% of the company's global plastic usage. Pre-packaged items, operational packaging, transport packaging, and Happy Meal® toys are out of scope for this assessment. The reported data cover the period January 1, 2021, through December 31, 2021.

Key changes to McDonald's Corporation's portfolio include:

- Small plastics accounted for 10.7% of McDonald's portfolio in 2021. This is a decrease from 15.5% in 2018 and 11.9% in 2020.
- Biobased content increased from 0.9% in 2020 to 2.0% in 2021.
- McDonald's eliminated polystyrene foam packaging from its global system in 2018. The remaining polystyrene, which represents 17.0% of the company's portfolio, is non-foam rigid polystyrene.

### INSIGHTS ON McDONALD'S CORPORATION'S PROGRESS

McDonald's has been working to reduce small plastic primary guest packaging that is hard to recycle and unnecessary for safety or functionality. The company has deployed alternatives to plastic cutlery in several markets, including transitioning to wooden cutlery in Australia, Europe, China, and India, leading to a reduction of over 2,600 metric tons of plastic annually. Straw and lid usage has been reduced in select European and Latin American countries through fiber or plastic strawless lids and "upon request" programs. For example, in Latin America, Arcos Dorados—McDonald's largest developmental licensee—has removed all lids and straws from cold drinks for dine-in customers and replaced plastic packaging such as salad plates with non-plastic alternatives across several markets.

Progress made toward sustainable inputs includes changing packaging, such as lids, to be made with recycled content in some markets. As packaging shifts out of plastic and into fiber-based packaging, the volume of recycled plastic in McDonald's portfolio may decrease. By the end of 2021, McDonald's was approximately 82.7% of the way toward its goal to source all primary guest packaging from renewable, recycled, or certified sources by the end of 2025.

In the company's top 35 markets, on average 35% of restaurants offered guests the opportunity to recycle packaging items. In these restaurants, guest packaging is collected in customer-facing recycling bins or collected for sorting and recycling back-of-house or off-site.

### McDONALD'S CORPORATION OVERVIEW & GOALS

*With nearly 40,000 locations in more than 100 countries, McDonald's is the world's leading global foodservice retailer. Approximately 95% of McDonald's restaurants worldwide are owned and operated by independent local business owners.*

*McDonald's purpose is to feed and foster communities, and the company 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 recycle. The majority of McDonald's global packaging portfolio by weight is sustainable fiber (78%), with the remaining comprised of plastics (22%).*

*In partnership with our Franchisees, suppliers, and producers, we're finding innovative ways to reduce emissions, keep waste out of nature, and preserve natural resources. McDonald's uses its global scale to accelerate a circular economy and has made the following key commitments related to the data disclosed in this report:*

1. *Source 100% of McDonald's primary guest packaging[18] 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, which was substantially achieved as of year end 2020.*
2. *By the end of 2025, we will implement global and local solutions across our business to advance the reduction, reuse, or recycling of guest packaging and help create demand for recycled materials.*

**FIGURE 21.** Inputs, form, and polymer distribution of McDonald's plastic portfolio in 2021.

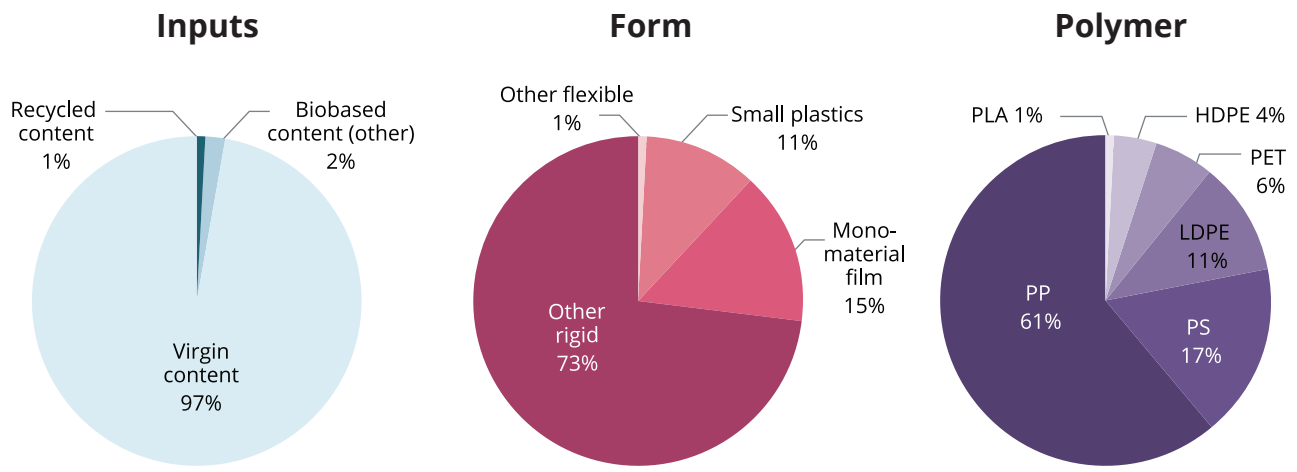
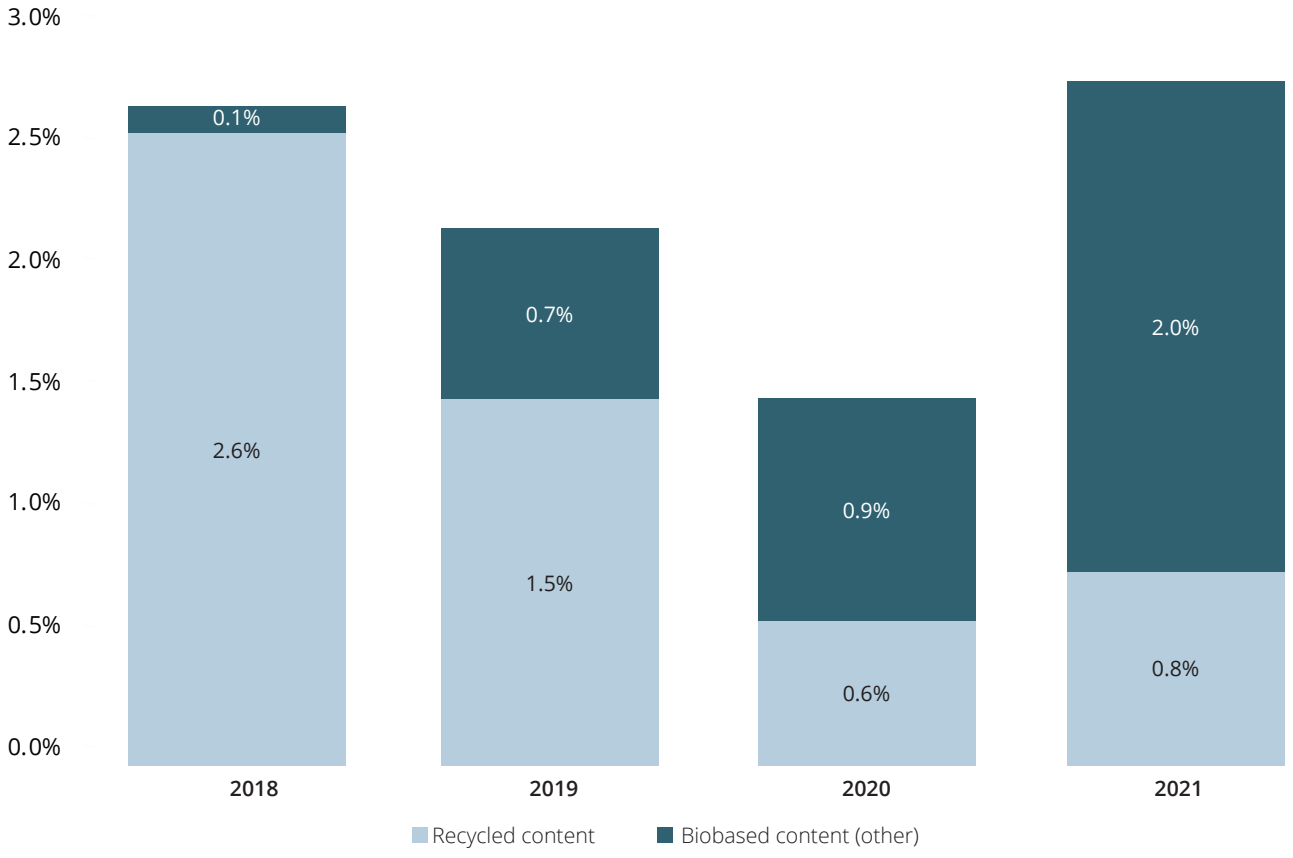



**FIGURE 22.** Use of sustainable inputs in McDonald's plastic portfolio from 2018 to 2021.



## Procter & Gamble (P&G)

The data provided by P&G cover the company's consumer-facing plastic packaging for countries in each region that total 80% of sales in that region. Secondary and tertiary packaging are out of scope for this assessment. The reported data cover the period July 1, 2020, through June 30, 2021.

Key changes to P&G's portfolio include:

- Recycled content made up 12.4% of P&G's portfolio in 2021. This increased from 9.7% in 2020 and 7.4% in 2019.
- HDPE increased from 32.5% in 2020 to 33.6% in 2021.
- Flexible films decreased from 16.0% in 2020 to 12.7% in 2021, while bottles increased from 46.2% in 2020 to 56.1% in 2021.

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

P&G's Brands continue to innovate to increase PCR/PIR content or use bio-derived resins in their packaging. In 2021, Gillette Planet KIND launched with razor handles made of 60% rPET and shave preparation bottles made of 85% rHDPE.

In support of P&G's goal of making 100% of its packaging recyclable or reusable by 2030, the company became the first FMCG company to join the RecyClass initiative. With RecyClass, 12 P&G products across the Oral-B, Tide, and Ariel brands were recognized and certified as meeting the RecyClass recyclability criteria. Additionally, P&G's Ariel, Lenor, Dash, and Fairy pods/capsule bags are transitioning from a multi-layer, non-recyclable film to a recyclable film made of PE, and the company introduced recyclable HDPE toothpaste tubes for its Crest, Oral-B, and Blend-a-med brands.

### PROCTER & GAMBLE OVERVIEW & 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% compared to 2017 baseline*
- *Partnering with global organizations to find 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.*
- *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 why we joined ReSource: Plastic—it represents an opportunity to work with WWF and industry leaders seeking to drive reporting tools, which can help better inform where strategic interventions are needed.*

**FIGURE 23.** Inputs, form, and polymer distribution of P&G's plastic portfolio in 2021.

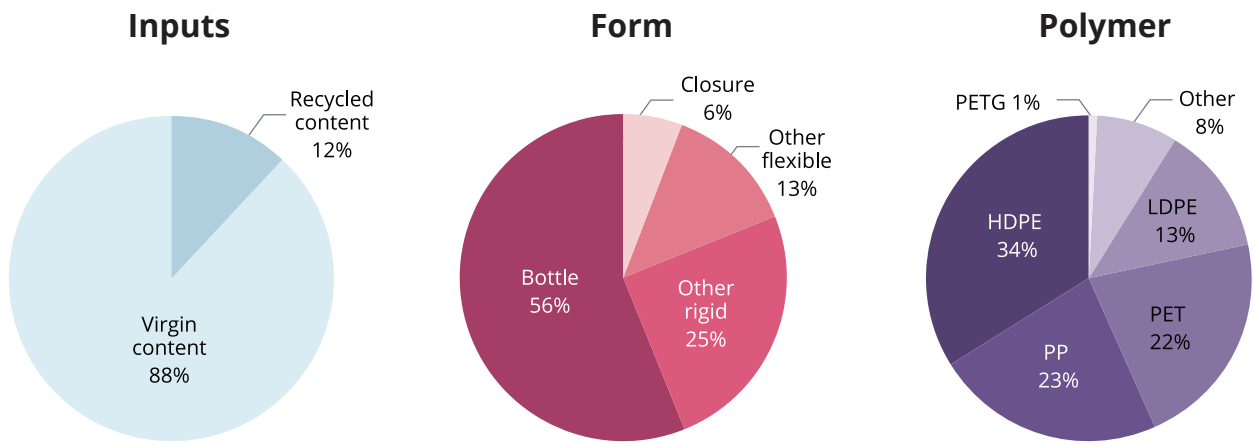
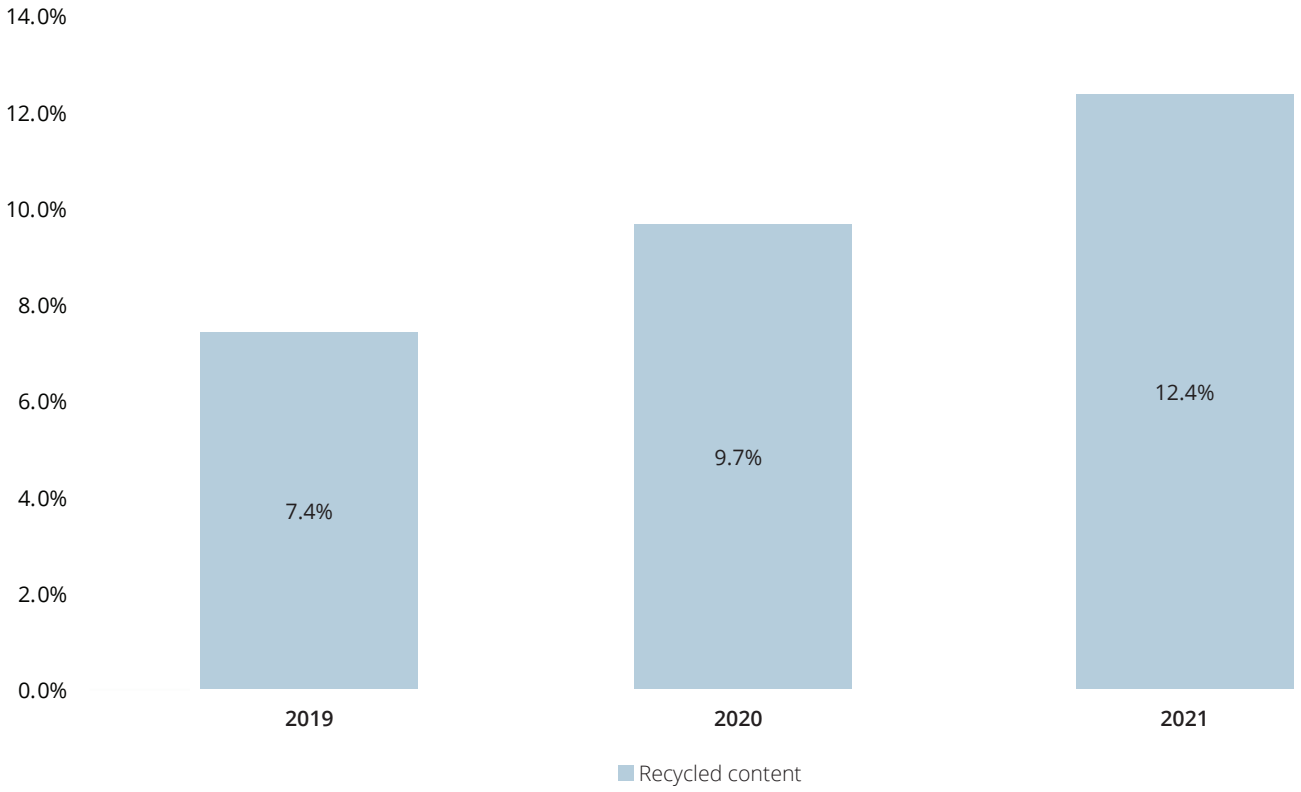



**FIGURE 24.** Use of post-consumer recycled content in P&G's plastic portfolio from 2019 to 2021.



## Starbucks Coffee Company

The data provided by Starbucks cover plastic from direct operations and retail stores globally, including licensed stores. Reporting includes Evolution Fresh and secondary and tertiary packaging. The company's non-store operations and consumer packaged goods business are out of scope for this assessment. The reported data cover the period September 28, 2020, through October 3, 2021.

While Starbucks reported data for 2018, which is included in the aggregate *ReSource* data for that year, the company made significant improvements to its inventory methodology the following year and therefore uses 2019 as its baseline for tracking individual progress. Starbucks made further improvements to its inventory methodology in 2022 and therefore updated its 2019 baseline to ensure comparability when tracking progress. The update did not change the total tonnage of plastic reported in 2019 but did result in changes in how some packaging was categorized. The updated 2019 baseline is reported in Appendix A.

Key changes to Starbucks' portfolio include;

- HDPE increased from 2.8% of Starbucks' plastic portfolio in 2020 to 12.5% in 2021.
- Biobased content increased from 0.9% in 2020 to 1.6% in 2021.
- The reported percentage of small plastics decreased from 2.5% in 2020 to 1.6% in 2021.

### STARBUCKS OVERVIEW & 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 25.** Inputs, form, and polymer distribution of Starbucks' plastic portfolio in 2021.

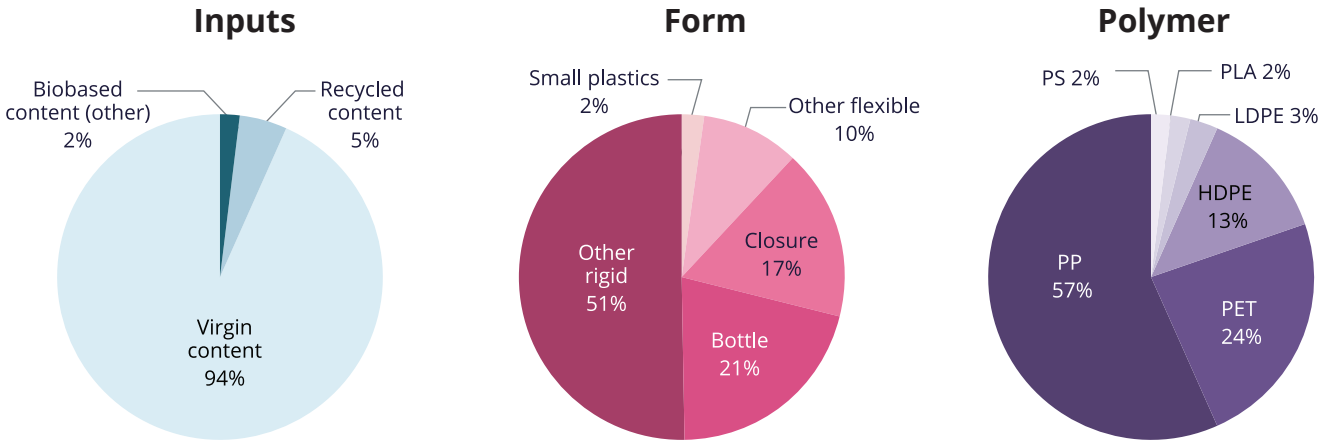
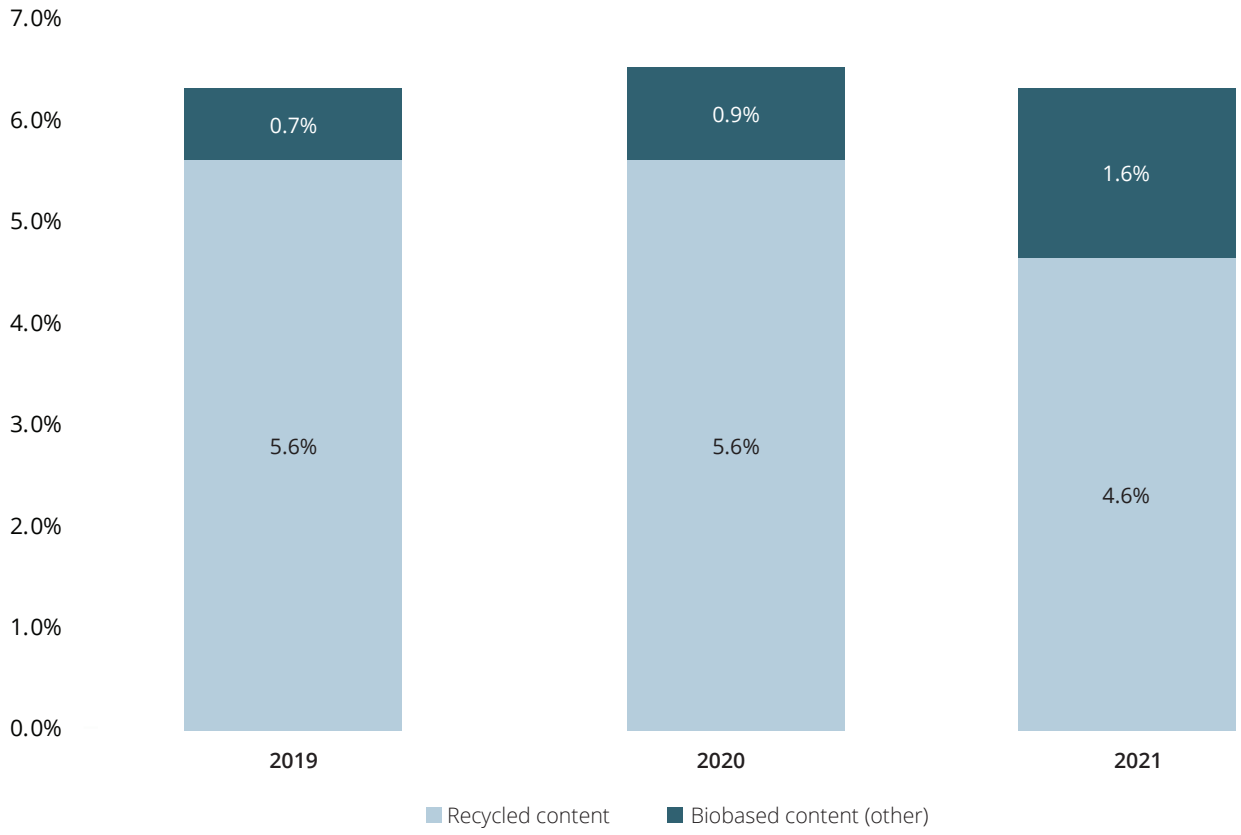



**FIGURE 26.** Use of sustainable inputs in Starbucks' plastic portfolio from 2019 to 2021



## INSIGHTS ON STARBUCKS' PROGRESS

In 2021, Starbucks reintroduced personal reusable cups and For Here Ware in most markets after removing the option due to COVID-19, though less than 1% of beverages sold were in reusable cups. Starbucks is testing different levels of financial incentives for customers who bring their personal cups as well as disincentive charges for single-use cups to learn what can increase reusable cup usage at Starbucks. The company is also aggressively testing and learning from Borrow-A-Cup programs across the globe, including stores in Seattle, Japan, Germany, France, United Kingdom, Singapore, Taiwan, and Korea. These Borrow-A-Cup tests gave customers the option to receive their beverage in a reusable cup and return it at a participating store's contactless kiosk. Starbucks plans to fully discontinue single-use cups in all stores across South Korea by 2025 and will gradually introduce cup-share programs across the market to encourage reuse; single-use cups currently make up 95,000 metric tons of the plastic portfolio in South Korea. Additionally, Starbucks announced that it will introduce a unique reusable Cup-Share program in all 3,840 stores in Europe, Middle East, and Africa by 2025.

In an effort to incorporate recycled plastic into the company's packaging, Starbucks announced that all stores in Indonesia will gradually transition to cold cups made with rPET, eliminating the equivalent of over 200,000 kilograms of virgin plastic per year across over 460 stores. In 2022, the company also introduced 100% rPET Ethos water bottles in U.S. and Canada markets. As part of achieving the company's goal of eliminating fossil fuel-derived plastic straws, Starbucks also replaced its traditional plastic straw with one made from a plant-based material, polyhydroxyalkanoate (PHA), in the U.S. in 2021.

In partnership with Closed Loop Partners and the NextGen Consortium, Starbucks continues its work toward its goal to develop 100% compostable and recyclable hot cups, continuing research and development on new cup liner technologies. In the last year, seven new cities in the U.S. have joined the list of major markets where Starbucks paper coffee cups are recyclable.

## The Coca-Cola Company

The data provided by The Coca-Cola Company cover consumer-facing plastic packaging for all The Coca-Cola Company's operating units and franchise bottlers. Secondary packaging, tertiary packaging, beverage cartons, fountain cups, and packaging items with volumes over 3 liters or 3 kilograms are out of scope for this assessment. The reported data cover the period January 1, 2021, through December 31, 2021.

Beverage cartons were previously included in The Coca-Cola Company's data for 2018 through 2020. However, due to data availability constraints, the reported tonnage included the entire weight of the cartons rather than just the weight of the plastic. To avoid overestimating this portion of the company's portfolio and to ensure consistency with the data reported to the New Plastics Economy Global Commitment, beverage cartons are no longer included and have been removed from the company's 2018-2020 data. The updated results for these years are reported in Appendix A.

Key changes to The Coca-Cola Company's portfolio include:

- In 2021, 13.6% of The Coca-Cola Company's portfolio was recycled content. This increased from 8.7% in 2018 and 11.2% in 2020.
- PET bottles made up nearly 100% of The Coca-Cola Company's portfolio, which is a slight increase from 2020.
- Flexibles, which consist of LDPE pouches, made up less than 0.1% of The Coca-Cola Company's portfolio, a slight decrease from 2020.

### THE COCA-COLA COMPANY OVERVIEW & 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 their 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.*

*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.*

*In early 2022, The Coca-Cola Company announced an industry-leading goal to significantly boost its use of reusable packaging:*

5. *By 2030, the company aims to have at least 25% of all beverages globally by volume across its portfolio of brands sold in refillable/returnable glass or plastic bottles, or in refillable containers through traditional fountain or Coca-Cola Freestyle dispensers.*

**FIGURE 27.** Inputs, form, and polymer distribution of The Coca-Cola Company's reported plastic portfolio in 2021.

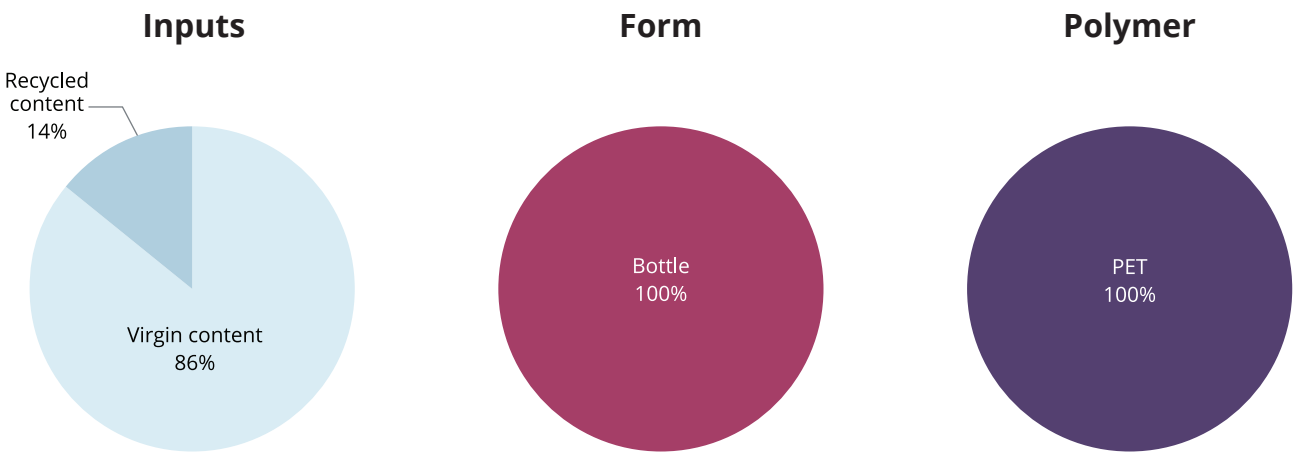
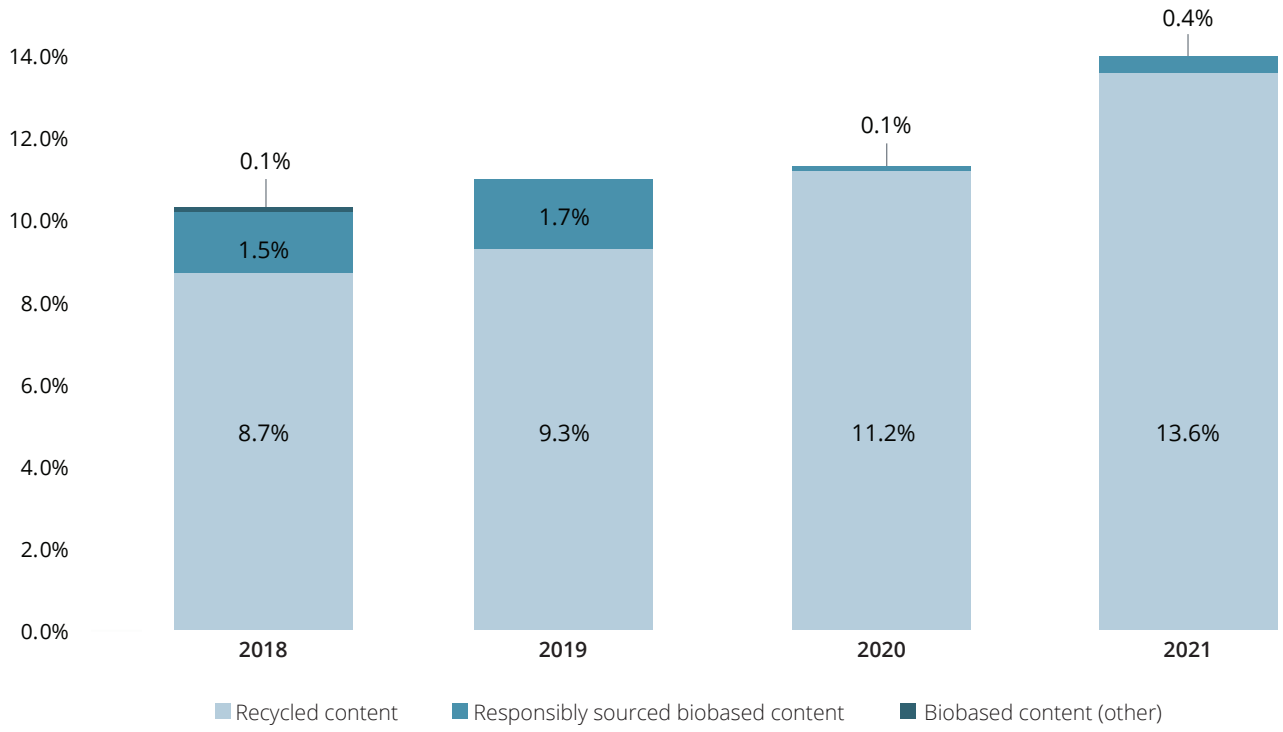



**FIGURE 28.** Use of sustainable inputs in The Coca-Cola Company's plastic portfolio from 2018 to 2021.



## INSIGHTS ON THE COCA-COLA COMPANY'S PROGRESS

In 2021, The Coca-Cola Company avoided almost half a million tons of virgin plastic usage through lightweighting, recycled plastic, and renewable material efforts. The company now offers beverages in 100% rPET bottles (excluding caps and labels) in approximately 30 markets, and four markets in Europe use 100% rPET bottles (excluding caps and labels) for their entire plastic packaging portfolio. Coca-Cola Europacific Partners (CCEP) introduced a lighter-weight PET bottle neck design in Germany, which contributed to a reduction of 2,500 metric tons, with other markets to follow. In October 2021, The Coca-Cola Company unveiled a first-ever prototype bottle made from 100% plant-based plastic (excluding the cap and label) that has been made using technologies that are ready for commercial scale. This should ultimately result in increased use of renewable material, though there has been a decline in the past few years due to more priority being placed on recycled material use. Additionally, as of the end of 2021, The Coca-Cola Company had transitioned Sprite to clear bottles in 47 markets to enhance the sorting and recycling process (with another 70-plus markets slated for conversion in 2022).

Building on the 2020 launch of the company's first label-less bottle for I LOHAS in Japan, South Korea launched the first label-less Coca-Cola PET plastic bottle and Bonaqua launched its first label-less bottle in Hong Kong. Since labels have to be removed prior to recycling in these markets, these innovations make the packaging easier to recycle.

Globally, The Coca-Cola Company has increased its focus on refillable packaging through a number of initiatives, including piloting a digital solution in Brazil and Chile for the returnable bottle exchange process through virtual coupons; introducing reusable cups with microchip technology for Coca-Cola Freestyle machines in theme parks, on university campuses, and on cruise ships in the United States; and offering three of its most popular brands in Germany—Fanta Orange, Sprite, and Mezzo Mix—as soda syrups for consumers to prepare drinks at home by adding carbonated water.

# New Member Baselines

## CVS Health

The data provided by CVS Health cover plastic in primary packaging for the company's Store Brand products in the United States. Secondary and tertiary packaging, as well as the company's Retail Pharmacy, Distribution Centers, Mail Order Pharmacy, and Long-Term Care Pharmacy businesses are out of scope for this assessment. The reported data cover the period January 1, 2021, through December 31, 2021.

Key insights from CVS Health's baseline:

- CVS Health's portfolio uses 1.6% recycled content.
- 51.8% of CVS Health's portfolio is PET bottles, and 17.0% is HDPE bottles. Other rigids make up 12.0% of the portfolio, and flexibles make up 6.6%.
- Small plastics, PS, and PVC make up 1.8%, 0.4%, and 1.1% of CVS Health's portfolio, respectively.

### INSIGHTS ON CVS HEALTH'S PROGRESS

In 2021, CVS Health piloted reusable bag rental systems in California and New Jersey to encourage customers to use a reusable bag rather than a single-use bag at checkout. The company also launched a "Skip the Bag" campaign, which includes a message on in-store radio encouraging customers to skip a bag if they do not need one. CVS Health also piloted an aluminum pill bottle at a CVS Pharmacy location in Wellesley, MA.

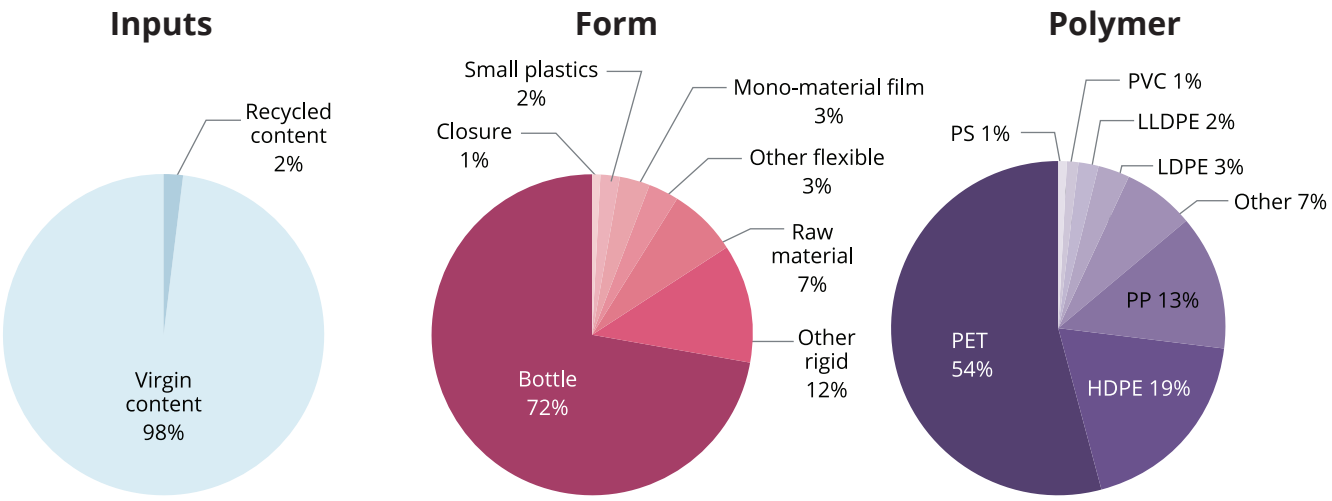
In support of the company's goal of all Store Brand packaging being 100% reusable, recyclable, compostable, or able to be returned for proper disposal at end of life, CVS Health has continued to expand How2Recycle labeling on Store Brand products and is exploring options to offer takeback pill bottles and convert them into reusable material.

### CVS HEALTH OVERVIEW & GOALS

*CVS Health has set the following sustainable packaging goals:*

- *Ensure all packaging for Store Brands products is 100% reusable, recyclable, compostable, or can be returned to us for proper disposal at the end of life by 2030*
- *Reduce single-use virgin plastic in Store Brand packaging by 50% by 2030*
- *By 2023, define a list of packaging to be designated as problematic or unnecessary and take measures to eliminate them by 2030*

**FIGURE 29.** Inputs, form, and polymer distribution of CVS Health's reported plastic portfolio in 2021.








# Maximize
# Recommendations for Action

Building on the findings from past years of reporting, this section reflects on the action taken between our inaugural report and now, with the goal of refining and adding to recommendations made previously. Overall, the focal areas identified in *Transparent 2020* and *Transparent 2021* remain largely relevant, with some issues seeing more progress than others. Furthermore, the convergence of private sector initiatives and policy advances has sharpened the focus of many initiatives.

## Updates to *Transparent 2021* Recommendations

### ELIMINATING UNNECESSARY PLASTIC THROUGH BUSINESS MODEL INNOVATION, REDUCTION, AND SUBSTITUTION

Overall, total tonnage of plastic used increased both because of the addition of *ReSource* Members and increased sales volumes after the COVID-19 pandemic. Several *ReSource* Members decreased their plastic use intensity, with the full range being +3.5% to -26%, normalized by net sales or units sold since their baseline year.

Small plastics, which include utensils, coffee stirrers, and straws that are typically less than 2 inches in two dimensions, were identified as an important opportunity to eliminate difficult-to-recycle plastic or test for their ability to be sorted and recovered in recycling processes. Overall, small plastics were reduced from the 2020 reporting year by 1,500 metric tons, continuing the trend identified in *Transparent 2021*.

Members also reported a wide range of pilots in reuse programs as part of their operations in 2021. Examples include The Coca-Cola Company's collaboration with Loop for reusable packaging, CVS Health's pilot of a reusable bag rental system in California, and Starbucks' Borrow-A-Cup and Cup-Share programs in several markets. Collective action efforts on reuse continue to create alignment on definitions and measurement, as well as advance opportunities for pilots and collaboration. Reusable packaging remains a key opportunity for Members, especially as it begins to scale in availability. An important next step on the road to scaling is to report on metrics related to reuse pilots in a systematic and comparable way.

### SHIFTING TO SUSTAINABLE INPUTS FOR REMAINING PLASTIC

Increasing the use of recycled content is 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 8.1% in 2019 (343,000 metric tons) to 12.5% in 2021 (559,000 metric tons). For all Members, recycled content is 10.2% of the aggregate portfolio, up from 8.0% in 2020. Collaborative efforts across key markets and on specific materials are beginning to impact availability of recycled material, providing a proof point for this work's value in reaching recycled content goals. However, addressing the incentive structure keeping fossil virgin plastic inexpensive and easier to source remains a key barrier to progress and will require action beyond corporate actors.

Notably, biobased content decreased from 0.4% of Members' portfolios to just 0.2% from 2020 to 2021. However, in contrast, several Members reported innovative projects to increase biobased content during this same time period. This is due in part to fluctuations in the price and availability of biobased materials and influenced by the lead time necessary to bring innovations into production. Responsibly sourced biobased plastic is important to the long-term strategies of several *ReSource* Members; notably, biobased plastic has a role to play in applications where there is not currently a clear path to be able to use recycled content. It will also be critical in instances when the properties of a novel biobased plastic are advantageous—for example, when a pack would not be able to be recycled because of product contamination but could be composted.

### DOUBLING GLOBAL RECYCLING AND COMPOSTING OF PLASTIC

Continuing the trend from *Transparent 2021,* problematic plastic continues to shrink as a proportion of Members' portfolios, decreasing from 94,200 metric tons (1.4% of the portfolio) in 2020 to 91,100 metric tons (1.3%) in 2021. This decrease is smaller in magnitude than in previous years, reflecting the reality that as this volume gets smaller, it also gets more difficult to eliminate what remains. Eliminating problematic polymers and components is important for aligning portfolios with the anticipated future conditions of waste management systems, bringing together design changes and broader systems changes to achieve a common vision for a future material system. For this reason, eliminating problematic plastic is an important tactic even though it does not drive high volumes of reduction.

As outlined in previous reports, the availability of recycled materials does not match the demand set by companies to meet their sustainability goals. Increasing availability of recycled content is a key intervention, and

*ReSource* Members are engaged in many collective action efforts to scale collection and recycling of plastic, varying 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 U.S., where *ReSource* Members' volumes are highest and landfill rates are also high.

Increasing recycling of PP is an important priority for several *ReSource* Members. Since its launch, the Polypropylene Recycling Coalition, led by The Recycling Partnership and funded by *ReSource* Members Keurig Dr Pepper and Procter & Gamble and members of the NextGen Consortium, has awarded grants to 30 recycling facilities, increasing the amount of PP recovered in the U.S. by an estimated 36 million pounds annually, and improved access to polypropylene recycling for over 27 million Americans.

Another initiative to increase recycling in the U.S. focuses on PET bottles, the most common item in the *ReSource* Members' aggregate plastic footprint. *ReSource* has engaged with the American Beverage Association (ABA), which is strengthening community recycling programs through its Every Bottle Back initiative to increase the collection of PET bottles and decrease the industry's use of new plastic. The Every Bottle Back initiative is investing in improved recycling infrastructure and consumer education in key areas of the country, with commitments to 26 communities to date that are projected to yield 719 million more pounds of PET over 10 years.

Collective action on composting systems remains less mature than on recycling, but the role of composting in addressing packaging waste is coming into sharper focus. In the U.S., two collaborations launched in 2021: Closed Loop Partners' Composting Consortium and the U.S. Plastics Pact's composting workstream. Since its launch, Closed Loop Partners' Composting Consortium has published a brief that outlines initial priority steps to create a more resilient composting system in the U.S. and has focused on working with the composting industry, consumer goods manufacturers, brands and retailers, environmental groups, and academics to scope and design three pilots, which will launch at the end of 2022. The pilots include an effort to understand effective ways to design and label compostable packaging to reduce contamination in all waste streams, a study to understand contamination in the organics streams and the measures that best mitigate it, and a pilot to understand the composting operating conditions that support the disintegration of various certified compostable packaging. The U.S. Plastics Pact's Composting Workstream is developing guidance on the design of compostable packaging to ensure that compostable items brought to market align with the developing organics collection and processing system in the U.S.

## DATA IMPROVEMENT AND HARMONIZATION

*ReSource* has called for collaboration to fill key data gaps and improve data confidence levels. As the list of stakeholders interested in understanding the state of the plastic waste crisis expands to include investors, financial institutions, and policy makers, this call to action is more relevant than ever.

Increasing stakeholder interest is driving more companies to measure their plastic footprints and driving demand to see voluntary measurement systems, like the ReSource Footprint Tracker, feed into the development of disclosure frameworks that are embedded in established financial disclosure systems.

The Global Treaty on Plastic Pollution, which the United Nations began negotiations on in late 2022, has the potential to set an important high-level framework for information, especially for country-level reporting and disclosures. Furthermore, a collaborative effort to create a standardized plastic disclosure framework for the private sector was announced in fall 2022 by CDP, The Pew Charitable Trusts, Minderoo Foundation, and the Ellen MacArthur Foundation.[19] Both developments are exciting steps toward the consistent and standardized reporting process that *ReSource* has long called for.

It is critical that these efforts build upon existing work to create convergence and alignment rather than duplicating efforts and/or proliferating methods that may not be compatible with one another. Building on current work avoids costly duplication, leverages the learnings from leaders and early adopters, and provides value and feasibility proof points to those being asked to participate in these systems.

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 *ReSource* moving forward, including collaborating to ensure a successful evolution of reporting tools and disclosure frameworks for corporate plastic footprints and country-level waste management reporting.

## Additional Opportunities for Impact

### TARGETING FACTORS WITHIN IMMEDIATE BUSINESS CONTROL

While addressing the root cause of the plastic pollution crisis will require fixing a broken system, there are still many actions that companies can take within their own operational control to make a significant impact. Businesses have direct control over design choices, and among *ReSource* Members, the factors that fall within the immediate ability of the company to address are understandably the fastest to show progress.

For example, McDonald's targeted small plastics within their portfolio this year through several key decisions, such as eliminating plastic straws and lids from cold drinks for dine-in in Latin America and beginning to phase out plastic straws in China. Similarly, Starbucks announced plans to fully discontinue single-use cups in all stores across South Korea by 2025. Members also looked toward using alternative materials to improve recyclability; for example, Amcor began using an alternative material for carbon black CPET trays in North America.

Overall, Members were able to make the most significant changes when targeting areas within their control. This trend is not surprising yet is indicative of a larger issue: that without the proper enabling frameworks for systemic change in place, corporate action is inherently limited in scope and does not address the root of the global plastic pollution crisis. However, companies should not wait for regulation to catch up in order to drive action; instead, they should strive to address problem areas in their own portfolios, referencing guidance from the collaborations most relevant to their industries and geographies. By identifying what immediate steps can be taken and then following through to address their individual plastic footprints today, businesses will better align themselves for greater systemic changes down the line.

### ADVOCATING FOR CONTINUED ENGAGEMENT FROM STAKEHOLDERS, POLICY MAKERS, AND OTHER CORPORATIONS

While companies can make meaningful progress to address plastic pollution through individual action, achieving broader goals will require advocating for wide-scale holistic change. Business holds an immense power of influence that can be leveraged to help move these necessary changes forward through advocacy and engagement with stakeholders, policy makers, and other corporations. Importantly, policy change at local, regional, national, and international levels can help Members achieve higher rates of recycled content and materials recovery and reduce mismanagement. It can also unlock incentives for circular solutions like reuse or other innovative delivery systems.

Business has an important role to play to help drive systemic change. By leveraging their critical influence, businesses can vocally advocate for significant policy advancements on the horizon. Notably, within the United States there is an ongoing push for a national policy on extended producer responsibility. As a result of continued advocacy from NGOs, businesses, and other stakeholders to build support, Colorado enacted the United States' first full extended producer responsibility legislation in June 2022. Businesses now must keep the drumbeat of support going in order to replicate this success in other states, ensuring that the United States adopts one harmonized strategy, rather than individual state plans that do not complement one another.

With the ongoing negotiation of the United Nations global instrument to address plastic pollution, businesses are needed more than ever to advocate for an ambitious and effective outcome. *ReSource* calls upon all its Members, as well as companies around the world, to make their support known throughout the treaty drafting and implementation process. Mobilizing corporate support for the global treaty and rallying other businesses to join the call will be critical in the coming years. In partnership with the Ellen MacArthur Foundation, WWF convenes the Business Coalition for a Global Plastics Treaty, which brings together businesses and

financial institutions committed to supporting the development of a UN treaty that is ambitious, effective, and legally binding.

## DESIGNING PORTFOLIOS TO MEET A FUTURE VISION

Both individual action and advocacy must be pursued in parallel if the plastic pollution crisis is to be addressed at a timescale that is meaningful for people and nature. This inherently requires working within uncertainty, but collaboration is an important mechanism to lessen this uncertainty and create clear decision paths. For example, companies can reference the U.S. Plastics Pact's list of problematic and unnecessary plastic when deciding what to prioritize for reduction efforts and participate in efforts like the Polypropylene Recycling Coalition that aim to create viable circularity pathways for priority materials.

Ultimately, businesses should not limit their strategies or ambitions to what they can achieve alone or what is required by current policy. Instead, a comprehensive vision of how their portfolios will fit within a future landscape of improved waste management systems and optimized incentives and policies is needed, along with advocacy designed to advance this vision.


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# Multiply
# Collaborating for Change

*ReSource* aims to multiply impact by strategically aligning and converging efforts across platforms to match action to 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.

WWF and *ReSource* Members collaborate on the Reuse Portal, facilitated by the Global Plastic Action Partnership. The Reuse Portal is a one-stop-shop collaboration platform that aims to scale reuse solutions that address plastic pollution, providing practical guidance, tools, and networks to businesses, policy makers, activists, and citizens. The Reuse Portal launched in phases over 2022. *ReSource* also collaborates with Consumers Beyond Waste (CBW), which works to advance more responsible models of consumption for the benefit of business and society. This year, a key project is the development of a reuse accounting framework. There is currently no consensus for how to measure, account for, or report on reusable packaging. Developing a standard methodology will help companies understand the impacts of reuse systems on their packaging portfolios and measure progress toward sustainability goals.

*ReSource* leverages the ReSource Footprint Tracker within the U.S. Plastics Pact to scale transparent and consistent measurement of plastic packaging across the United States. The U.S. Plastics Pact remains focused on bringing together stakeholders across the value chain to implement solutions that help ensure that plastic packaging can be reused, refilled, recycled, or composted and to shift the nation toward a circular economy. 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. An aggregate plastic footprint baseline report for all U.S. Pact "Activators" was published in March 2022, with a first progress report to be published in early 2023. This year, the ReSource Footprint Tracker has also been employed by the Canada Plastics Pact to measure year-over-year progress for all Canada Plastics Pact Partners, broadening the Tracker's uptake and increasing harmonization of reporting metrics across North America.

*ReSource* continues to hold a thought leadership partnership with the Bioplastic Feedstock Alliance (BFA), which enables *ReSource* to benefit from the BFA's existing work to bring a science-based perspective to the sourcing of biobased plastic and its role in circular systems. The BFA's *Methodology for the Assessment of Bioplastic Feedstocks* was updated in February 2022 to reflect updated science, integrate a climate resilience lens, and ensure the methodology is applicable to emerging bioplastic feedstocks.

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, WWF published the U.S. Policy Guidance for Circular Economy in June 2022 to create alignment around key terms and offer guidance on how policy can enable a circular economy in the United States. This report elaborates on the work of WWF's OneSource Coalition, which launched in the U.S. in 2021. 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. In 2022, OneSource Coalition was represented on a radio media tour explaining the impact of plastic pollution and potential action, reaching more than 8 million listeners.

In light of the United Nations vote in favor of a legally binding resolution to address plastic pollution to be implemented by 2024, supporting the upcoming global plastics treaty is also a top priority. In partnership with the Ellen MacArthur Foundation, WWF convenes the Business Coalition for a Global Plastics Treaty to bring together businesses and financial institutions committed to advocating for the final treaty to be ambitious and effective as it moves from draft to implementation in the coming years.



# Conclusion

As the third installment of *ReSource's* public report and the second progress report for our Principal Members baseline analysis, *Transparent 2022* 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* and elaborated on in *Transparent 2021* 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. Two years later, this trend remains true and continues to be a source of substantial progress, demonstrating the power of data-driven interventions. Consistent with previous years, the limited availability of high-quality and food-grade recycled content continues to be a barrier and impedes companies' ability to shift their portfolio to sustainable sources.

While the results of *Transparent 2022* highlight the significant impact that companies can have when they work to make changes within their own portfolios, they also prove the need for larger systemic change. While collaborative action has moved the needle for some plastics in certain regions, larger enabling frameworks will be needed to impact global systemic change so that plastic packaging circularity can be realized. To solve the plastic pollution crisis at the scope and scale that the planet needs, action must be taken to address the broken system that is at the root of the issue. By leveraging their immense influence, businesses can advocate for smart plastic policy on the national and global levels that will drive the necessary system change and allow their actions to have an even wider impact. In the meantime, companies should continue their internal work and begin designing their portfolios and business models in anticipation of a changing plastic landscape. The work that is being done today will serve as the foundation for future mechanisms and policies to address plastic pollution and raise the bar for further corporate ambition.

Progress is also subject to externalities; as highlighted in *Transparent 2021*, COVID-19 continues to disrupt 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 2023. 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. In this light, the United Nations took a historic step in March 2021, when 175 member states voted in favor of a legally binding global treaty to address plastic pollution. While the final scope and scale of the treaty are currently being negotiated, this resolution has the potential to transform how governments and the private sector respond to plastic waste.

# 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 Goods**
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 vinyl alcohol | EVOH |
| High-density polyethylene | HDPE |
| Low-density polyethylene | LDPE |
| Linear low-density polyethylene | LLDPE |
| Nylon | Nylon |
| Other (specified in description) | Other |
| Polybutylene adipate terephthalate | PBAT |
| Polybutylene succinate | PBS |
| Polybutylene succinate adipate | PBSA |
| Polycarbonate | PC |
| Polyethylene furanoate | PEF |
| Polyethylene terephthalate | PET |
| Polyethylene terephthalate glycol | PETG |
| Polyhydroxyalkanoate | PHA |
| Polylactic acid | PLA |
| Polypropylene | PP |
| Polystyrene | PS |
| Polyvinyl chloride | PVC |
| Polyvinyl alcohol | PVOH |

# Appendix A

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

| | Aggregate | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| | Total tonnage | 3,560,000 | 4,360,000 | 6,830,000 | 7,200,000 |
| | Companies reporting | 4 | 6 | 8 | 9 |
| **Inputs** | Recycled content | 7.8% | 7.9% | 8.0% | 10.2% |
| | Biobased content (resp. sourced) | 1.3% | 1.3% | 0.1% | 0.2% |
| | Biobased content (other) | 0.2% | 0.1% | 0.3% | 0.1% |
| | Virgin content | 90.7% | 90.8% | 91.6% | 89.5% |
| **Form** | Bottle | 82.6% | 82.1% | 67.7% | 70.2% |
| | Closure | 9.3% | 3.9% | 2.7% | 1.5% |
| | Mono-material film | 0.5% | 2.2% | 3.8% | 5.2% |
| | Other flexible | 0.6% | 5.6% | 17.6% | 14.3% |
| | Other rigid | 5.9% | 5.6% | 7.8% | 8.4% |
| | Rigid foam | 0.1% | 0.0% | 0.0% | 0.0% |
| | Small plastics | 1.0% | 0.7% | 0.5% | 0.5% |
| **Polymer** | HDPE | 5.8% | 3.4% | 4.9% | 5.3% |
| | LDPE | 0.8% | 6.1% | 6.6% | 14.5% |
| | LLDPE | 0.0% | 0.0% | 0.0% | 0.0% |
| | Other | 0.1% | 1.2% | 13.2% | 1.0% |
| | PC | 0.0% | 0.0% | 0.0% | 0.0% |
| | PET | 82.9% | 80.1% | 65.0% | 69.2% |
| | PETG | 0.0% | 0.5% | 0.1% | 0.1% |
| | PLA | 0.1% | 0.0% | 0.0% | 0.1% |
| | PP | 7.6% | 7.2% | 9.2% | 8.9% |
| | PS | 2.4% | 1.5% | 1.0% | 0.9% |
| | PVC | 0.0% | 0.0% | 0.0% | 0.0% |
| **Waste Management** | Recycling | 43.3% | 42.2% | 31.8% | 33.5% |
| | Incineration | 6.6% | 7.6% | 9.2% | 8.8% |
| | Landfill | 34.5% | 34.6% | 43.3% | 42.6% |
| | Mismanagement | 15.6% | 15.7% | 15.7% | 15.2% |

| | Amcor | 2020 | 2021 |
|---|---|---|---|
| **Tonnage** | Total tonnage | 2,360,000 | 2,370,000 |
| | Change in tonnage from 2020 | - | +0.4% |
| | Normalization factor | $12.9B net sales | $14.5B net sales |
| | Normalized change in tonnage from 2020 | - | -11.3% |
| **Inputs** | Recycled content | 4.5% | 5.6% |
| | Biobased content (resp. sourced) | 0.0% | 0.0% |
| | Biobased content (other) | 0.9% | 0.0% |
| | Virgin content | 94.6% | 94.3% |
| **Form** | Bottle | 44.5% | 46.0% |
| | Closure | 1.4% | 0.6% |
| | Mono-material film | 6.4% | 11.0% |
| | Other flexible | 42.7% | 36.4% |
| | Other rigid | 4.4% | 5.5% |
| | Rigid foam | 0.0% | 0.0% |
| | Small plastics | 0.6% | 0.6% |
| **Polymer** | HDPE | 2.3% | 2.3% |
| | LDPE | 7.1% | 32.8% |
| | LLDPE | 0.0% | 0.0% |
| | Other | 36.0% | 0.0% |
| | PC | 0.0% | 0.0% |
| | PET | 44.4% | 55.1% |
| | PETG | 0.0% | 0.0% |
| | PLA | 0.0% | 0.0% |
| | PP | 8.7% | 8.3% |
| | PS | 1.4% | 1.4% |
| | PVC | 0.0% | 0.0% |

| | Colgate-Palmolive | 2020 | 2021 |
|---|---|---|---|
| **Tonnage** | Total tonnage | 289,000 | 279,000 |
| | Change in tonnage from 2020 | - | -3.4% |
| | Normalization factor | $16.5B net sales | $17.4B net sales |
| | Normalized change in tonnage from 2020 | - | -8.7% |
| **Inputs** | Recycled content | 10.5% | 14.2% |
| | Biobased content (resp. sourced) | 0.0% | 0.0% |
| | Biobased content (other) | 0.0% | 0.0% |
| | Virgin content | 89.5% | 85.8% |
| **Form** | Bottle | 51.6% | 50.2% |
| | Closure | 10.4% | 9.8% |
| | Mono-material film | 2.8% | 3.9% |
| | Other flexible | 18.3% | 15.9% |
| | Other rigid | 16.9% | 20.3% |
| | Rigid foam | 0.0% | 0.0% |
| | Small plastics | 0.0% | 0.0% |
| **Polymer** | HDPE | 22.0% | 22.8% |
| | LDPE | 26.4% | 27.5% |
| | LLDPE | 0.0% | 0.0% |
| | Other | 3.6% | 5.6% |
| | PC | 0.0% | 0.0% |
| | PET | 30.9% | 29.0% |
| | PETG | 0.0% | 0.0% |
| | PLA | 0.0% | 0.0% |
| | PP | 16.8% | 14.9% |
| | PS | 0.2% | 0.2% |
| | PVC | 0.1% | 0.0% |

| | CVS Health | 2021 |
|---|---|---|
| **Tonnage** | Total tonnage | 12,100 |
| **Inputs** | Recycled content | 1.6% |
| | Biobased content (resp. sourced) | 0.0% |
| | Biobased content (other) | 0.0% |
| | Virgin content | 98.4% |
| **Form** | Bottle | 71.9% |
| | Closure | 0.8% |
| | Mono-material film | 3.1% |
| | Other flexible | 3.5% |
| | Other rigid | 12.0% |
| | Rigid foam | 0.0% |
| | Small plastics | 1.8% |
| | Raw material | 6.9% |
| **Polymer** | HDPE | 19.1% |
| | LDPE | 3.2% |
| | LLDPE | 2.3% |
| | Other | 7.0% |
| | PC | 0.0% |
| | PET | 54.3% |
| | PETG | 0.2% |
| | PLA | 0.0% |
| | PP | 12.5% |
| | PS | 0.4% |
| | PVC | 1.1% |

| | Keurig Dr Pepper | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| **Tonnage** | Total tonnage | 208,000 | 230,000 | 230,000 | 243,000 |
| | Change in tonnage from 2018 | - | +10.4% | +10.3% | +16.7% |
| | Normalization factor | * | $11.1B net sales | $11.6B net sales | $12.7B net sales |
| | Normalized change in tonnage from 2019 | * | * | -4.4% | -7.3% |
| **Inputs** | Recycled content | 0.3% | 0.4% | 2.0% | 11.5% |
| | Biobased content (resp. sourced) | 0.0% | 0.0% | 0.0% | 0.0% |
| | Biobased content (other) | 0.0% | 0.0% | 0.0% | 0.0% |
| | Virgin content | 99.7% | 99.6% | 98.0% | 88.5% |
| **Form** | Bottle | 72.8% | 64.4% | 68.1% | 75.2% |
| | Closure | 4.3% | 8.0% | 6.6% | 0.0% |
| | Mono-material film | 1.3% | 0.5% | 4.3% | 3.6% |
| | Other flexible | 1.1% | 5.7% | 3.1% | 1.2% |
| | Other rigid | 19.2% | 21.4% | 17.9% | 20.0% |
| | Rigid foam | 0.0% | 0.0% | 0.0% | 0.0% |
| | Small plastics | 1.3% | 0.0% | 0.0% | 0.0% |
| **Polymer** | HDPE | 0.6% | 2.2% | 2.5% | 2.5% |
| | LDPE | 1.2% | 4.2% | 5.4% | 4.3% |
| | LLDPE | 0.4% | 0.0% | 0.0% | 0.0% |
| | Other | 0.0% | 0.5% | 0.4% | 1.7% |
| | PC | 0.0% | 0.0% | 0.0% | 0.0% |
| | PET | 73.6% | 64.4% | 68.1% | 66.1% |
| | PETG | 0.1% | 0.0% | 0.0% | 0.3% |
| | PLA | 0.0% | 0.0% | 0.0% | 0.0% |
| | PP | 8.1% | 18.2% | 23.0% | 25.0% |
| | PS | 16.0% | 10.5% | 0.6% | 0.0% |
| | PVC | 0.0% | 0.0% | 0.0% | 0.0% |

**2018 normalization factor unavailable due to 2018 merger between Keurig Green Mountain business and Dr Pepper Snapple Group.*

| | Kimberly-Clark | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| **Tonnage** | Total tonnage | 111,000 | 106,000 | 86,000 |
| | Change in tonnage from 2018 | - | -4.3% | -22.1% |
| | Normalization factor | $18.5B net sales | $19.1B net sales | $19.4B net sales |
| | Normalized change in tonnage from 2019 | - | -7.8% | -26.0% |
| **Inputs** | Recycled content | 1.9% | 2.5% | 3.1% |
| | Biobased content (resp. sourced) | 1.2% | 1.2% | 0.0% |
| | Biobased content (other) | 0.0% | 0.0% | 0.0% |
| | Virgin content | 97.0% | 96.3% | 96.9% |
| **Form** | Bottle | 9.5% | 1.0% | 0.7% |
| | Closure | 0.0% | 5.8% | 0.0% |
| | Mono-material film | 62.4% | 67.5% | 80.3% |
| | Other flexible | 12.2% | 15.2% | 15.9% |
| | Other rigid | 15.9% | 10.4% | 3.1% |
| | Rigid foam | 0.0% | 0.0% | 0.0% |
| | Small plastics | 0.0% | 0.0% | 0.0% |
| **Polymer** | HDPE | 8.7% | 0.2% | 0.1% |
| | LDPE | 62.4% | 67.5% | 80.3% |
| | LLDPE | 0.0% | 0.0% | 0.0% |
| | Other | 0.0% | 0.0% | 0.0% |
| | PC | 0.0% | 0.0% | 0.0% |
| | PET | 12.4% | 15.4% | 15.6% |
| | PETG | 0.0% | 0.0% | 0.0% |
| | PLA | 0.0% | 0.0% | 0.0% |
| | PP | 16.5% | 16.9% | 4.0% |
| | PS | 0.0% | 0.0% | 0.0% |
| | PVC | 0.0% | 0.0% | 0.0% |

| | McDonald's Corporation | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| **Tonnage** | Total tonnage | 153,000 | 181,000 | 156,000 | 162,000 |
| | Change in tonnage from 2018 | - | +18.8% | +2.0% | +5.7% |
| | Normalization factor | * | 63.8B units sold | 53.3B units sold | 56.4B units sold |
| | Normalized change in tonnage from 2019 | * | * | +2.8% | +0.8% |
| **Inputs** | Recycled content | 2.6% | 1.2% | 0.6% | 0.8% |
| | Biobased content (resp. sourced) | 0.0% | 0.0% | 0.0% | 0.0% |
| | Biobased content (other) | 0.1% | 0.6% | 0.9% | 2.0% |
| | Virgin content | 97.3% | 97.7% | 98.5% | 97.2% |
| **Form** | Bottle | 0.0% | 0.0% | 0.0% | 0.0% |
| | Closure | 27.7% | 25.6% | 25.3% | 0.0% |
| | Mono-material film | 6.0% | 11.3% | 10.3% | 14.8% |
| | Other flexible | 1.4% | 3.5% | 4.8% | 1.3% |
| | Other rigid | 47.2% | 45.7% | 47.7% | 73.2% |
| | Rigid foam | 2.2% | 0.0% | 0.0% | 0.0% |
| | Small plastics | 15.5% | 14.0% | 11.9% | 10.7% |
| **Polymer** | HDPE | 0.1% | 3.5% | 4.3% | 4.1% |
| | LDPE | 6.0% | 11.3% | 10.9% | 11.1% |
| | LLDPE | 0.0% | 0.0% | 0.0% | 0.0% |
| | Other | 1.4% | 0.0% | 0.0% | 0.0% |
| | PC | 0.0% | 0.0% | 0.0% | 0.0% |
| | PET | 7.7% | 11.0% | 7.2% | 6.0% |
| | PETG | 0.0% | 0.0% | 0.0% | 0.0% |
| | PLA | 0.1% | 0.3% | 0.2% | 1.1% |
| | PP | 54.3% | 53.2% | 59.5% | 60.7% |
| | PS | 30.4% | 20.7% | 18.0% | 17.0% |
| | PVC | 0.0% | 0.0% | 0.0% | 0.0% |

**2018 normalization factor unavailable due to inconsistencies with the normalization factor for subsequent years.*

| | Procter & Gamble | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| **Tonnage** | Total tonnage | 605,000 | 609,000 | 679,000 |
| | Change in tonnage from 2018 | - | +0.6% | +12.3% |
| | Normalization factor | $67.7B net sales | $71.0B net sales | $76.1B net sales |
| | Normalized change in tonnage from 2019 | - | -4.0% | -0.2% |
| **Inputs** | Recycled content | 7.4% | 9.7% | 12.4% |
| | Biobased content (resp. sourced) | 0.0% | 0.0% | 0.0% |
| | Biobased content (other) | 0.0% | 0.0% | 0.0% |
| | Virgin content | 92.6% | 90.3% | 87.6% |
| **Form** | Bottle | 49.4% | 46.2% | 56.1% |
| | Closure | 13.0% | 6.3% | 6.4% |
| | Mono-material film | 0.0% | 0.0% | 0.0% |
| | Other flexible | 33.7% | 16.0% | 12.7% |
| | Other rigid | 3.9% | 31.4% | 24.9% |
| | Rigid foam | 0.0% | 0.0% | 0.0% |
| | Small plastics | 0.0% | 0.0% | 0.0% |
| **Polymer** | HDPE | 18.6% | 32.5% | 33.6% |
| | LDPE | 25.3% | 16.0% | 12.7% |
| | LLDPE | 0.0% | 0.0% | 0.0% |
| | Other | 8.4% | 6.6% | 7.7% |
| | PC | 0.0% | 0.0% | 0.0% |
| | PET | 30.9% | 21.1% | 22.2% |
| | PETG | 3.9% | 1.1% | 1.0% |
| | PLA | 0.0% | 0.0% | 0.0% |
| | PP | 13.0% | 22.8% | 22.8% |
| | PS | 0.0% | 0.0% | 0.0% |
| | PVC | 0.0% | 0.0% | 0.0% |

| | Starbucks | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| **Tonnage** | Total tonnage | 191,000 | 133,000 | 121,000 | 151,000 |
| | Change in tonnage from 2018 | - | New baseline | -9.3% | +13.4% |
| | Normalization factor | - | $26.5B net revenues | $23.5B net revenues | $29.1B net revenues |
| | Normalized change in tonnage from 2019 | - | New base-line | +2.2% | +3.5% |
| **Inputs** | Recycled content | 6.4% | 5.6% | 5.6% | 4.6% |
| | Biobased content (resp. sourced) | 0.0% | 0.0% | 0.0% | 0.0% |
| | Biobased content (other) | 1.0% | 0.7% | 0.9% | 1.6% |
| | Virgin content | 92.6% | 93.7% | 93.5% | 93.8% |
| **Form** | Bottle | 15.4% | 19.6% | 19.9% | 20.6% |
| | Closure | 19.5% | 18.4% | 17.6% | 16.6% |
| | Mono-material film | 1.9% | 3.2% | 3.0% | 0.0% |
| | Other flexible | 6.7% | 7.6% | 7.6% | 10.3% |
| | Other rigid | 51.2% | 48.4% | 49.5% | 50.9% |
| | Rigid foam | 0.0% | 0.0% | 0.0% | 0.0% |
| | Small plastics | 5.3% | 2.8% | 2.5% | 1.6% |
| **Polymer** | HDPE | 12.9% | 3.0% | 2.8% | 12.5% |
| | LDPE | 5.0% | 5.9% | 5.2% | 3.2% |
| | LLDPE | 0.0% | 0.0% | 0.0% | 0.0% |
| | Other | 0.0% | 0.0% | 0.0% | 0.0% |
| | PC | 0.0% | 0.0% | 0.0% | 0.0% |
| | PET | 19.8% | 21.3% | 27.9% | 24.0% |
| | PETG | 0.0% | 0.0% | 0.0% | 0.0% |
| | PLA | 1.0% | 0.7% | 0.9% | 1.6% |
| | PP | 57.1% | 66.8% | 61.3% | 56.7% |
| | PS | 3.7% | 2.1% | 1.9% | 2.0% |
| | PVC | 0.4% | 0.1% | 0.0% | 0.0% |

| | The Coca-Cola Company | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| **Tonnage** | Total tonnage | 3,010,000 | 3,100,000 | 2,960,000 | 3,220,000 |
| | Change in tonnage from 2018 | - | +2.8% | -1.6% | +7.1% |
| | Normalization factor | $34.3B net revenues | $37.3B net revenues | $33.0B net revenues | $38.7B net revenues |
| | Normalized change in tonnage from 2019 | - | -5.4% | +2.2% | -5.0% |
| **Inputs** | Recycled content | 8.7% | 9.3% | 11.2% | 13.6% |
| | Biobased content (resp. sourced) | 1.5% | 1.7% | 0.1% | 0.4% |
| | Biobased content (other) | 0.1% | 0.0% | 0.0% | 0.0% |
| | Virgin content | 89.7% | 89.0% | 88.6% | 86.0% |
| **Form** | Bottle | 91.7% | 99.9% | 99.9% | 100.0% |
| | Closure | 8.0% | 0.0% | 0.0% | 0.0% |
| | Mono-material film | 0.1% | 0.0% | 0.0% | 0.0% |
| | Other flexible | 0.2% | 0.1% | 0.1% | 0.0% |
| | Other rigid | 0.0% | 0.0% | 0.0% | 0.0% |
| | Rigid foam | 0.0% | 0.0% | 0.0% | 0.0% |
| | Small plastics | 0.0% | 0.0% | 0.0% | 0.0% |
| **Polymer** | HDPE | 6.1% | 0.0% | 0.0% | 0.0% |
| | LDPE | 0.2% | 0.1% | 0.1% | 0.0% |
| | LLDPE | 0.0% | 0.0% | 0.0% | 0.0% |
| | Other | 0.0% | 0.0% | 0.0% | 0.0% |
| | PC | 0.0% | 0.0% | 0.0% | 0.0% |
| | PET | 91.4% | 99.9% | 99.9% | 100.0% |
| | PETG | 0.0% | 0.0% | 0.0% | 0.0% |
| | PLA | 0.0% | 0.0% | 0.0% | 0.0% |
| | PP | 2.0% | 0.0% | 0.0% | 0.0% |
| | PS | 0.0% | 0.0% | 0.0% | 0.0% |
| | PVC | 0.0% | 0.0% | 0.0% | 0.0% |

**Net revenue numbers are only for The Coca-Cola Company, while tonnages are for the entire Coca-Cola system.*

# Appendix B

**TABLE B1.** Form description and classification

| Packaging Classification | Form Category | Form Category Definition | Form Description Examples |
|---|---|---|---|
| **RIGID** | Bottle | A form of rigid packaging having a comparatively narrow neck or mouth with a closure and usually no handle. *Source: ISO 21067:2007* | 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. *Source: APR* | 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.<br><br>SHRINK FILM: plastic material that shrinks in size when heated to conform to the item(s) packaged. *Source: ISO 21067-1:2016*<br><br>STRETCH WRAP: material that elongates when applied under tension and which, through elastic recovery, conforms to item(s) packaged. *Source: ISO 21067-1:2016* | 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** | Albania, 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, Moldova, Monaco, Montenegro, Netherlands, North Macedonia, 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. Lucia, St. Martin (French part), Suriname, Trinidad and Tobago, Uruguay, Bolivarian Republic of Venezuela |
| **Middle East & North Africa** | Algeria, Bahrain, Djibouti, Arab Republic of Egypt, Islamic Republic of Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Malta, 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, Zimbabwe |

## Endnotes


1 "The New Plastics Economy: Rethinking the Future of Plastics." World Economic Forum, 2016. https://www3.weforum.org/docs/WEF_The_New_Plastics_Economy.pdf.

2 "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.

3 "Impacts of Plastic Pollution in the Oceans on Marine Species, Biodiversity and Ecosystems." WWF-Germany, 2022. https://wwfint.awsassets.panda.org/downloads/wwf_impacts_of_plastic_pollution_on_biodiversity.pdf.

4 Analysis conducted by WWF using data from UNEP, Trucost, and the Plastic Disclosure Project.

5 We rely on the ISO 14021:2016 definition of post-consumer recycled content and the U.S. Department of Agriculture 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.

6 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.

7 "The Global Commitment 2021 Progress Report." The Ellen MacArthur Foundation and UN Environment Programme, 2021. https://emf.thirdlight.com/link/n1ipti7a089d-ekf9l1/@/preview/1?o.

8 "The APR Design Guide for Plastics Recyclability." The Association of Plastic Recyclers, 2022. https://plasticsrecycling.org/apr-design-guide.

9 "The APR Design Guide for Plastics Recyclability." The Association of Plastic Recyclers, 2022. https://plasticsrecycling.org/apr-design-guide.

10 WWF believes that responsibly sourced biobased content at a minimum must be legally sourced; be 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.

11 "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.

12 "The Global Commitment 2021 Progress Report." The Ellen MacArthur Foundation and UN Environment Programme, 2021. https://emf.thirdlight.com/link/n1ipti7a089d-ekf9l1/@/preview/1?o.

13 "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.

14 Region categories with countries can be found in Appendix B.

15 Rounding is to the nearest whole number for regional management rates.

16 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).

17 Based on weight comparison from 2019 to 2021 for the U.S., Canada, and Mexico.

18 Primary guest packaging refers to disposable products used to package guest food on premises at McDonald's restaurants that is given to customers in all order channels, including containers, cups, clamshells, wraps, foodservice bags, napkins, folding cartons, salad bowls, lids, straws, napkins and cup carriers, and Happy Meal book and toy packaging.

19 "CDP Expands Global Environmental Disclosure System to Help Tackle Plastic Pollution Crisis." CDP, September 22, 2022. https://www.cdp.net/en/articles/companies/cdp-expands-global-environmental-disclosure-system-to-help-tackle-plastic-pollution-crisis/.






https://resource-plastic.com/