

Creating Pathways for a Circular Plastics Packaging Economy



2021 Annual Report

March 2023

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Foreword

Collaborative Change: Challenging the Status Quo To Achieve a Circular Economy for Plastics Packaging

I'm pleased to present a comprehensive overview of the aggregated reporting data from our Canada Plastics Pact (CPP) Partners for 2021, and highlight some of the actions taken in our first year as a Pact.

Since the release of our [2020 Baseline Report](#), which provided valuable insights into the Canadian landscape prior to the launch of the CPP, we have demonstrated initial progress made by our Partners in our journey towards a circular economy for plastics packaging.

Our 2021 Annual Report reflects data from the peak of the COVID-19 pandemic, which was a time of significant supply chain challenges that created a great deal of uncertainty in the market and with consumers. Consequently, it also impacted the ability for businesses to advance their circular packaging efforts. That being said, many CPP Partners were actively developing internal strategies and launching new efforts in line with our four CPP Roadmap targets, as highlighted in this report.

The message remains the same in both our 2020 Baseline Report and our first CPP Annual Report, which highlights 2021 data: **that there is great work underway, but we have a long way to go and need to move faster.**

In order to achieve our collective goals within our [Roadmap to 2025](#), it is necessary that we hold ourselves accountable. We must continue gathering information and performance data, as well as collaborating to establish consistent standards and definitions. We must also take practical steps, such as reducing waste where possible, exploring reuse solutions, and redesigning packaging to be fully recyclable. Additionally, we should launch and scale collaborative projects that demonstrate success and address key challenges, invest in critical infrastructure, develop end markets, and unite around policy and legislation. By working together towards these objectives, we can make significant progress towards achieving our shared vision.

Our diversity of Partners and their collective ambition provides us with a unique position to make a real impact on Canada's journey toward circular plastic packaging.



Paul Shorthouse

*Interim Managing Director
Canada Plastics Pact*

Canada Plastics Pact Partners (2021)

The CPP launched in January 2021 with 41 businesses and organizations representing the plastics packaging value chain across Canada. 82 CPP Partners submitted information for the 2021 Annual Report, of which 50% were Signatory Partners who provided both quantitative and qualitative data, and the rest were Implementation Partners providing only qualitative information.

82 CPP Partners



For a full, updated list please visit plasticspact.ca/partners

The CPP has two primary member categories

CPP Signatories consist of businesses operating within the plastics packaging value chain, ranging from manufacturers and producers to converters, retailers, recyclers, and processors.

Implementation Partners who represent the wider system of associated research, policy and standards development, stewardship, and other relevant ecosystem activities.



Where We Left Off

In the Spring of 2022, the [2020 Baseline Report](#) was released, providing foundational data points that indicated the starting point of CPP Partners before the launch of the Pact.

The Baseline Report showed that while many of the CPP Partners were undertaking some actions to address existing challenges and to advance circularity in their own packaging, there was a lack of coordination and knowledge sharing across the board.

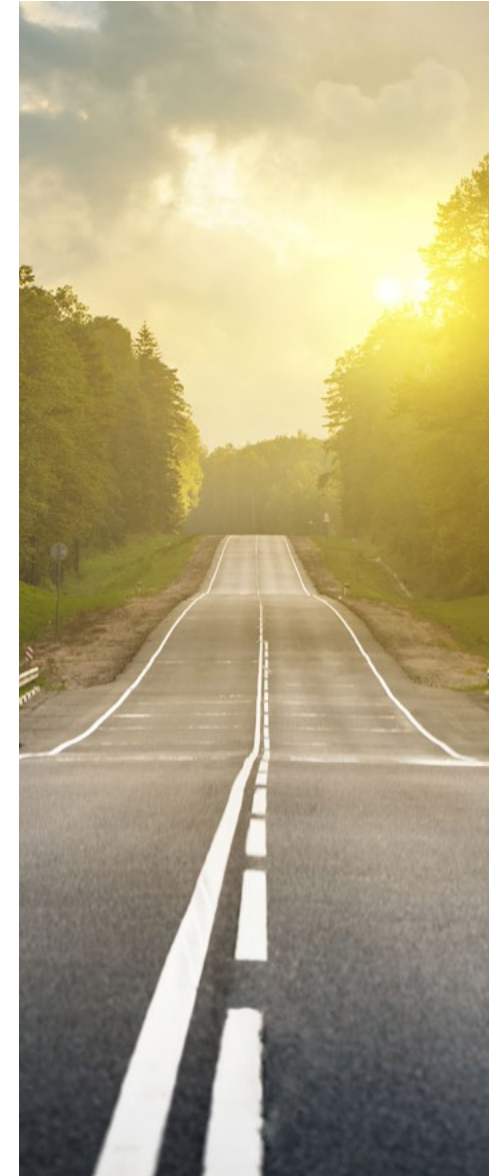
To view a list of definitions, please visit our website: plasticspact.ca/definitions

The Baseline Report clearly outlined there is a lot of work to be done in the coming years. One of the critical issues identified in the report is the significant gaps in data availability, which poses a significant challenge to accurately assess progress towards achieving roadmap targets. The Baseline Report established three key takeaways:

1. The policy landscape for plastics packaging is fragmented and lacks coherence, with differences between jurisdictions and levels of authority.
2. There are significant challenges in the supply and demand of certain packaging resins and polymers.
3. Identifying the most critical actionable strategies to accelerate the transition to a circular economy is challenging due to poor communication, lack of information, and the absence of common definitions and language.

CPP's baseline data clarified our starting point and identified areas of strength and key gaps that need addressing as a collective in the near-term. The process of developing the Baseline Report also offered an opportunity for CPP Partners to establish and harmonize their own internal reporting frameworks with others to enable it to be used in future annual reporting efforts.

Although the improvement of data availability is a priority for the CPP and its Partners, the challenges faced are complex and will take time to solve. Each Annual Report following the Baseline Report will seek to improve the data and information availability and reliability.

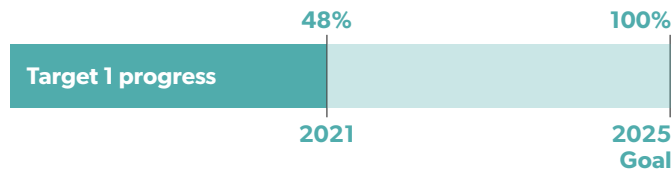


Progress Towards 2025 Targets



TARGET 1

Define a list of plastic packaging that is designated as problematic or unnecessary and take measures to eliminate them by 2025.

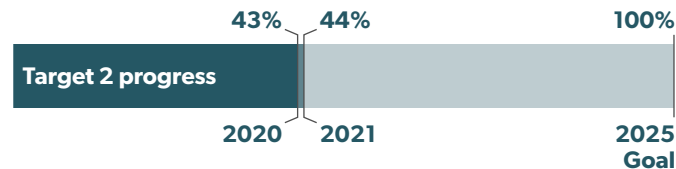


48% of CPP Signatories do not place any plastics currently defined as problematic on the market, while the remaining **52%** have plans to reduce or eliminate at least one problematic item.



TARGET 2

Support efforts towards 100% of plastic packaging being designed to be reusable, recyclable or compostable by 2025.

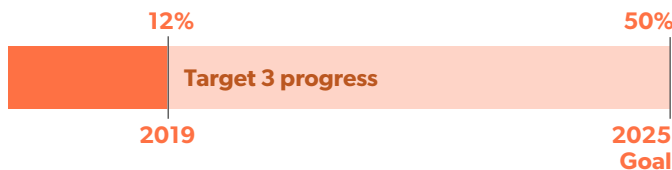


44% of plastic packaging placed on the market by CPP Partners is designated as reusable, recyclable, or compostable.



TARGET 3

Undertake ambitious actions to ensure that at least 50% of plastic packaging is effectively recycled or compostable by 2025.

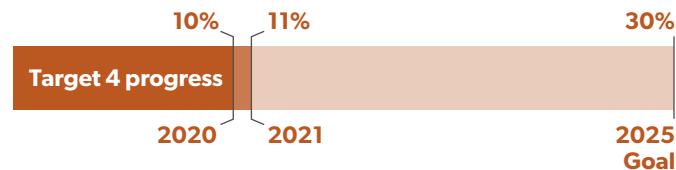


Based on the most current and reliable data available, it is estimated that only **12%** of plastic packaging was recycled in Canada in 2019, with flexible packaging having a recycling rate as low as **1%**.

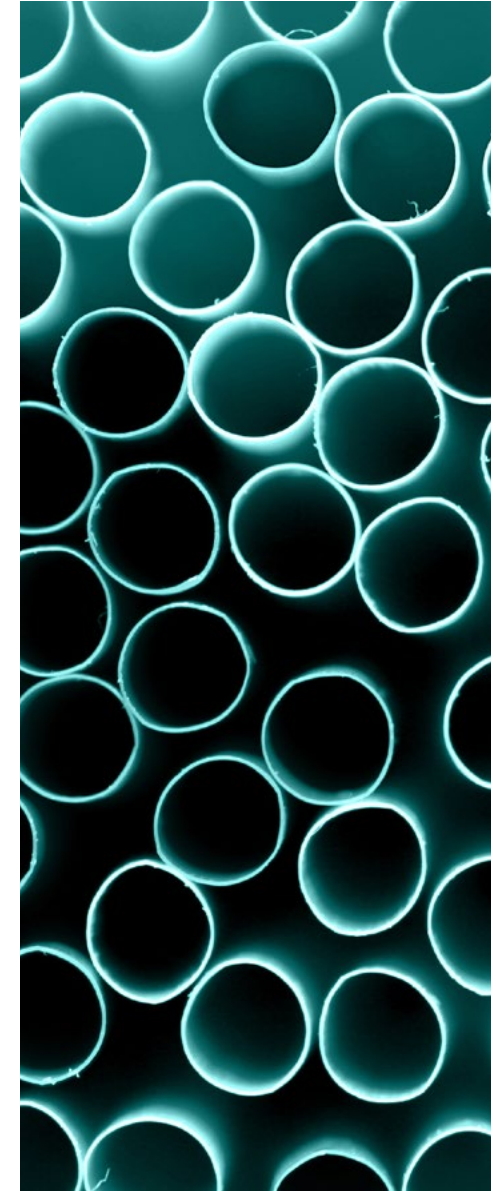


TARGET 4

Ensure an average of at least 30% recycled content across all plastic packaging (by weight) by 2025.



11% was the average amount of post-consumer recycled (PCR) content (by weight) across plastic packaging produced by CPP partners.



Target 1

Define a list of plastic packaging that is designated as unnecessary and problematic and take measures to eliminate them by 2025.



In 2021, CPP Partners continued to take proactive steps to eliminate or reduce unnecessary and problematic plastic packaging materials without a path to circularity. As expected, Partners have improved their data collection and reporting procedures, resulting in a more comprehensive understanding of the amount of plastic packaging currently considered problematic that was placed on the market in 2021. Efforts in this space are being accelerated by the impacts of single use item bans, and the evolution of the CPP's Unnecessary and Problematic Materials List, to be published by the Source Reduction Working Group in 2023.

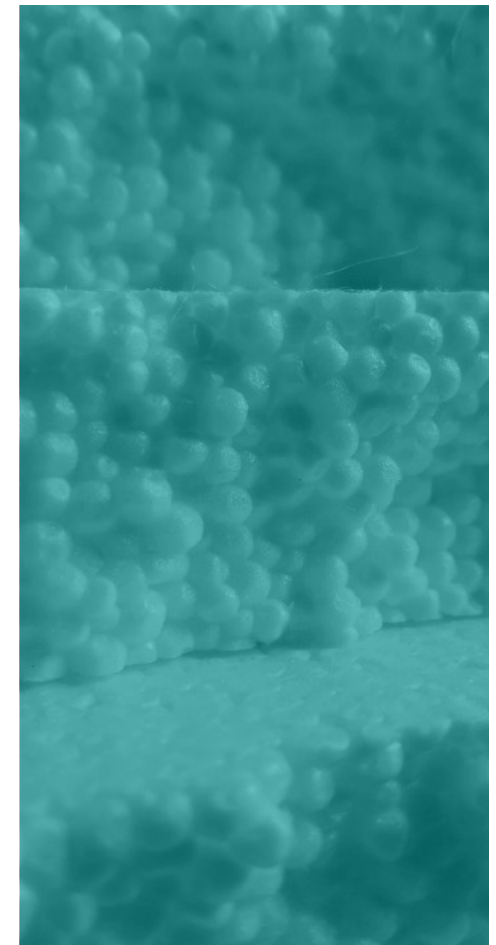
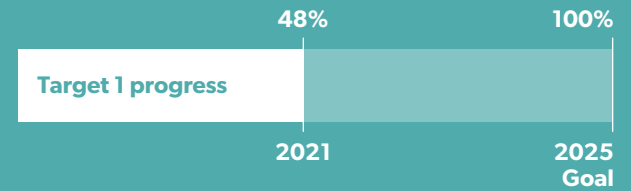
Unnecessary and Problematic Plastics

The CPP is aligned with the Ellen MacArthur Foundation's definition of problematic plastics. Their list of criteria helps identify unnecessary or problematic plastic packaging or plastic packaging components as follows:

1. It is not reusable, recyclable, or compostable
2. It contains, or its manufacturing requires, hazardous chemicals that pose significant risk to human health or the environment
3. It can be avoided (or replaced by a reuse model) while maintaining utility
4. It hinders or disrupts the recyclability or compostability of other items
5. It has a high likelihood of being littered or ending up in the natural environment

Where items are technically considered recyclable but remain on the problematic plastics list, the CPP has taken into consideration end-to-end factors specific to the Canadian market such as access to collection and sorting infrastructure, end markets, and the scalability of existing and near-term technologies and solutions.

48% of CPP Signatories do not place any plastics currently defined as problematic on the market, while the remaining 52% have plans to reduce or eliminate at least one problematic item



Target 1

Case Study



Tonnage of problematic items, by categories

2021		
Problematic items	Tonnage sold	% of tonnage sold
Checkout bags	21,990	43%
Stir sticks	10	0%
Beverage six-pack rings	3	0.01%
Cutlery	831	2%
Straws	1,771	3%
Undetectable carbon black	11,038	21%
PVC/PVDC	7,569	15%
PETG	1,551	3%
PS Rigid*	6,664	0%
Oxo-degradables	-	0%
Total	51,425	100%



Walmart Canada, a major retailer in the country with over 400 stores, has taken action to reduce plastic waste by eliminating single-use plastic bags at checkout. The phase-out plan started with a successful 10-store pilot in August 2021, which diverted nearly 6 million plastic bags in four months.

This change, which will prevent more than 680M plastic bags from entering circulation each year, was implemented in all of Walmart's more than 400 Canadian stores by the end of April 2022. Customers are encouraged to bring their own reusable options from home when shopping in-store or using pickup for online orders.

Target 2

Support efforts towards 100% of plastic packaging being designed to be reusable, recyclable, or compostable by 2025.



In 2021, 44% of plastic packaging placed on the market by CPP Partners was reusable, recyclable, or compostable. In tonnages, this is 108,411 MT of the 244,605 MT of the total plastic packaging placed on the market by CPP Signatories in 2021.

All plastic packaging on the Canadian market

1.89 million MT*

13%

Portion generated by CPP Partners in 2021 (244,605 MT)

56%

136,194 MT

Non-recyclable

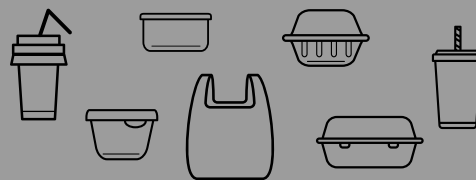
44%

108,411 MT

Reusable, recyclable,
or compostable

21% problematic plastics

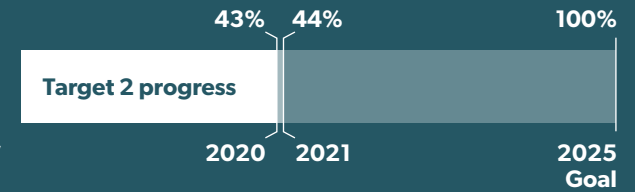
Polystyrene
Expanded Polystyrene
Checkout Bags
Undetectable Carbon Black
Straws, PVC/PVDC and PETG



51,425 MT

*2019 CPP Foundational Report

44% of plastic packaging placed on the market by CPP Partners is designated as reusable, recyclable, or compostable



Target 2

Case Study



Reuse models

Reuse models are one tool for CPP Partners to improve their percentage of plastics packaging designated to be recyclable, reusable, or compostable. In 2021, 28% of CPP Partners had a reuse model under development or in place.

The obstacles to employing a reuse model for CPP Signatories are summarized in the table below. These include consumer acceptance, logistics, scaling,

and financial and infrastructure challenges. Notably, 88% of Signatories identified consumer acceptance as a major obstacle to effective reuse model development and implementation, while logistical challenges and scaling models were also identified as significant impediments by more than two-thirds of CPP Partners.

Identifying these barriers is a necessary step to improving the ability of CPP Signatories to implement reuse models in the coming years.

Obstacles	Number of signatories	% of signatories
Financial	7	44%
Infrastructure	7	44%
No viable alternative supply		0%
Scaling	8	50%
Logistics	11	69%
Consumer acceptance	14	88%
Other	4	25%

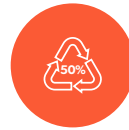
Unilever Canada



Unilever Canada, a consumer goods company, has launched a refill-at-home format for its Dove deodorant brand that uses 54% less plastic than traditional deodorant sticks. The stainless-steel deodorant case is designed to last a lifetime and the refills are provided in minimal 96% recycled plastic packaging. Unilever has plans to launch a campaign in February 2023 to increase awareness of the refillable pack and encourage trial of the product.

Target 3

Undertake ambitious actions to ensure that at least 50% of plastic packaging is effectively recycled or compostable by 2025.

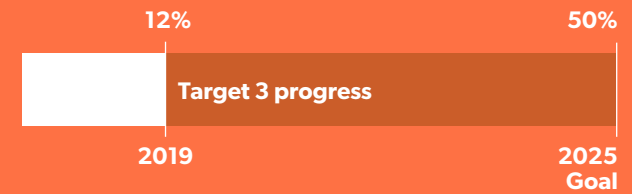


Target 3 is difficult to quantify as it is an external measurement that is harder to control. To measure progress towards this target, the CPP continues to rely on its [Foundational Report](#). Based on the most current and reliable data the CPP has available, the national recycling rate in Canada was 12% in 2019, with only 21% of rigid plastic packaging and 1% of flexible plastic packaging being recycled. In order to gather more accurate data for the 2022 Annual Report, the CPP plans to prioritize data collection related to Target 3 in 2023.

In general, the improvement in the ability to collect and track data has resulted in higher numbers being reported against plastic packaging produced, as evidenced by CPP Partners' 2021 reporting.

Continued analysis reveals that PET bottles, HDPE bottles, rigid PP, and larger mono-material flexible packaging constitute the top three plastic packaging materials by tonnage within the CPP. Together, these items accounted for nearly 62% of the plastic packaging generated by reporting Partners in 2021, indicating the importance of understanding how effectively these are being recycled.

12% of plastic packaging is estimated to have been recycled in Canada in 2019; and only 1% of flexible packaging.



Packaging category	Total (MT)	Total (%)
PET Bottle	59,152	24%
PET Thermoforms	13,767	6%
Other PET Rigid	2,234	1%
HDPE Bottle	25,156	10%
HDPE Other Rigid	3,224	1%
PP Bottle	1,418	1%
PP Other Rigid	29,514	12%
PE Tubes	478	0%
EPS rigid	2,821	1%
PS rigid	8,633	4%
PVC rigid	1,822	1%
Other rigid plastic		0%
>A4 mono-material PE flexibles in B2B context	4,310	2%
>A4 mono-material PE flexibles in B2C context	39,568	16%
Other >A4 flexibles	3,457	1%
<A4 PE flexibles	9,936	4%
<A4 PP flexibles	3,586	1%
<A4 multi material flexibles	17,318	7%
Other	18,212	7%
Total	244,605	

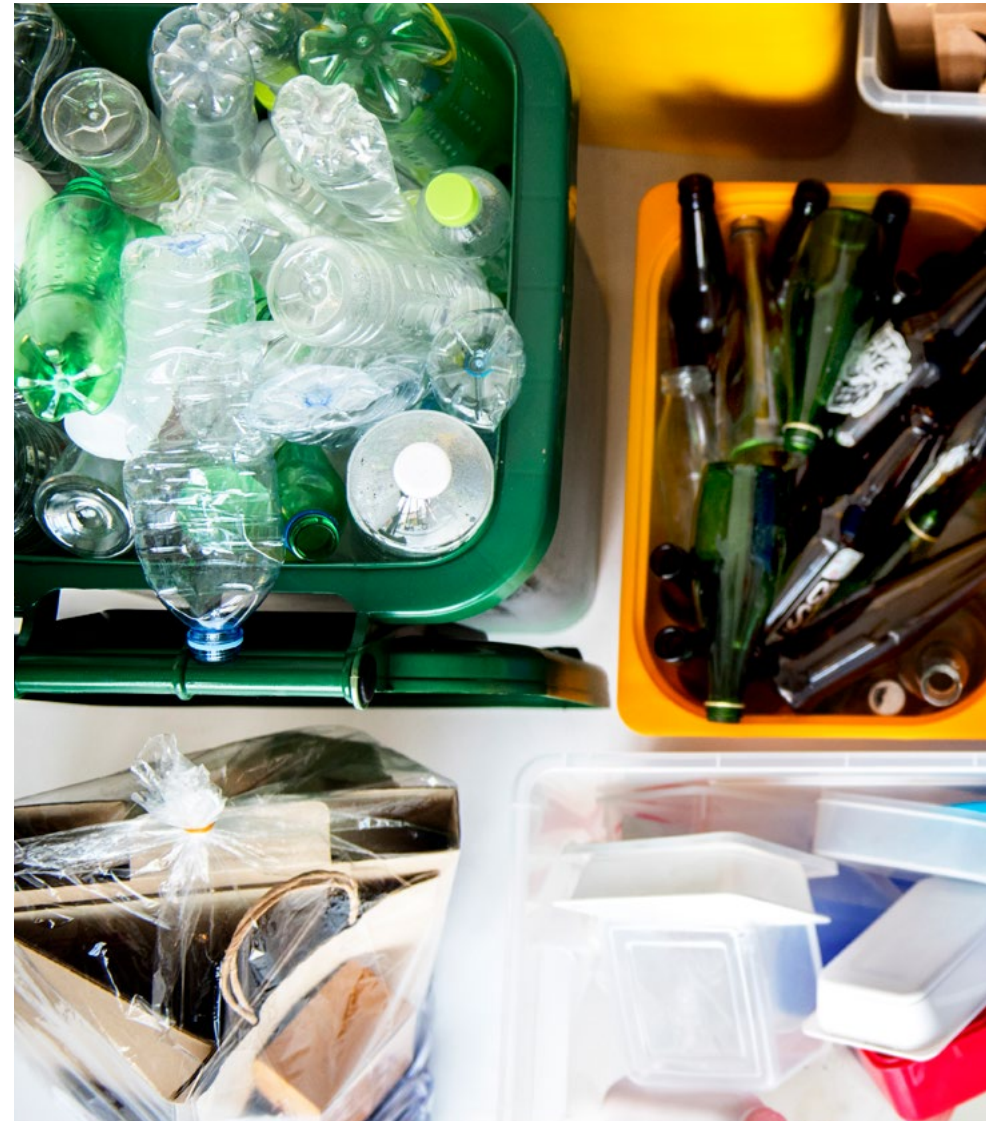
Target 3: Case Study



Kraft Heinz Canada & TerraCycle



The Ethical Bean National Recycling Program, launched in 2021, is a collaboration between Kraft Heinz Canada, a food and beverage company, and TerraCycle, a waste management company specializing in zero-waste solutions for difficult-to-recycle waste streams. This program aims to reduce plastic waste in the coffee industry by collecting and recycling coffee bags made of flexible plastics packaging, which are not typically accepted in curbside recycling. Data from 2021-2022 has shown that 73,000 bags were collected and effectively recycled into new products, resulting in a total weight of 1,168 kilograms diverted from landfills.



Target 4

Ensure an average of at least 30% recycled content across all plastic packaging (by weight) by 2025.



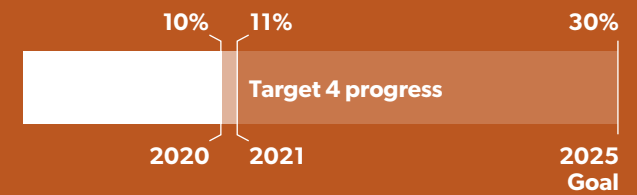
CPP Partners are working across their plastic packaging portfolios to increase post-consumer recycled (PCR) content where possible. In 2021, PET bottles, PET thermoforms, and HDPE bottles were the packaging types and materials that used the highest amount of recycled content. PET bottles, like in 2020, have the greatest amount of recycled content in them at 33%, followed by PET thermoforms at 13%, and HDPE bottles at 10%.

Target 3 is crucial in ensuring an adequate supply of post-consumer recycled content, and mandates for PCR content play a critical role in driving demand for recycled materials. CPP Partners have identified and explored the disconnect between PCR supply

and demand that continues to act as a challenge to increasing PCR. An area that is particularly challenging is food-grade PCR, which has both technical and regulatory barriers to implementation. The input material must adhere to strict specifications and be suitable for contact with food to ensure there are no risks to human health or adverse effects on the food in taste, odor, or composition. There is increasing demand for food-grade PCR solutions, and it is vital that we continue to work with key actors along the plastic value chain, and governing bodies like Health Canada, in order to address these challenges and constraints and be successful in the long term.

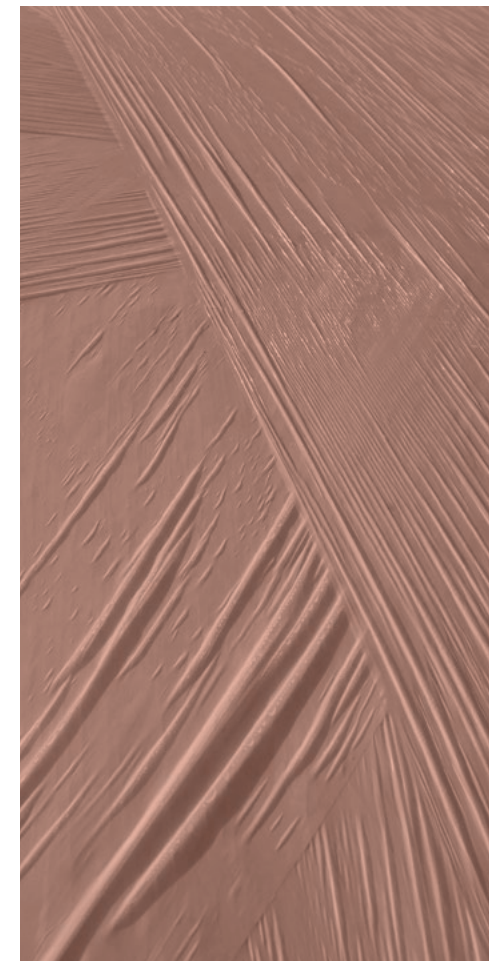
In order to address the challenge of supply and demand of recycled

11% average PCR content (by weight) across plastic packaging produced by CPP partners



content, the CPP Recycled Content Working Group developed a supply map of PCR and launched two pilot projects in 2021 and 2022, which increased the use of recycled content in stand-up pouches, case wraps, and stretch films.

It is worth noting that improving reporting is essential to better understand the composition of the 'other' category (as seen in the table on page 14), which contains 10% PCR, emphasizing the need to better identify the items included in this group.



Target 4



Average recycled content by categories

Packaging category	Plastic tonnage total (MT)	Recycled content tonnage 2021 (MT)	Recycled content 2021 (%)
PET Bottle	59,152	19,279	33%
PET Thermoforms	13,767	1,769	13%
Other PET Rigid	2,234	83	4%
HDPE Bottle	25,156	2,568	10%
HDPE Other Rigid	3,224	18	1%
PP Bottle	1,418	51	4%
PP Other Rigid	29,514	239	1%
PE Tubes	478	-	0%
EPS rigid	2,821	144	5%
PS rigid	8,633	2	0%
PVC rigid	1,822	1	0%
Other rigid plastic	-	-	0%
>A4 mono-material PE flexibles in B2B context	4,310	32	0.75%
>A4 mono-material PE flexibles in B2C context	39,568	948	2%
Other >A4 flexibles	3,457	62	2%
<A4 PE flexibles	9,936	91	1%
<A4 PP flexibles	3,586	0	0%
<A4 multimaterial flexibles	17,318	26	0%
Other	18,212	1,876	10%
Total	244,605	27,190	11%

Average recycled content by packaging group

Packaging group	Plastic tonnage total (MT)	Recycled content tonnage (MT)	Recycled content (%)
Rigid	148,218	24,154	16%
Flexible	78,175	1,160	1.5%
Other	18,212	1,876	10%
Total	244,605	27,190	11%



Target 4: Case Study



Keurig Dr Pepper (KDP)



Keurig Dr Pepper Canada refreshed its Snapple brand packaging by transitioning to 473mL bottles made of 100% post-consumer recycled PET (excluding cap and label) to reduce transportation greenhouse gas emissions as a result of being able to ship more products on the same size truck, improve recyclability and, by increasing demand for recycled resin, help contribute to a more circular economy.

Since the transition to a plastic rPET bottle in Canada, KDP Canada's virgin plastic use was reduced by 365 tons, based on the weight of virgin plastic and the volume of Snapple bottles sold in 2021 and 2022.



Key Takeaways & Next Steps



While this first Annual Report does not demonstrate significant improvements in terms of quantifiable progress towards 2025 targets, 2021 was a year when the Canada Plastics Pact had better insight and transparency around the amount and types of plastic packaging formats and resins that CPP Partners were generating and placing on to the Canadian market. Additionally, Partners were making their own internal investments to seek alignment.

While the CPP has improved its own reporting standards and identified the necessary groundwork for future action toward 2025 targets and beyond, CPP Partners must continue to:

- address key issues and reduce knowledge and data gaps simultaneously;
- gather information and data to hold Partners accountable towards the 2025 targets;
- collaborate to find consistent standards and definitions, roadmaps towards end markets, pilots to innovate and drive technology and recycling efficiencies, infrastructure development;
- align with the Golden Design Rules and guidance for unnecessary and problematic plastics, flexible plastics, post-consumer recycled content, compostables, and other efforts spearheaded by the CPP to enable scalable action; and
- unite around policy and legislation.

Key Takeaways & Next Steps

The CPP is demonstrating that collaborative efforts towards a common goal can drive change and challenge the status quo, even in the face of complex challenges. Through the voluntary commitment of members, Plastics Pacts are moving quicker than the global average. By proactively identifying solutions, the Pact can make even greater strides towards advancing a circular plastics packaging economy.



Highlights of achievements in 2022 and 2023:

- Launched and implemented the [Golden Design Rules for Plastics Packaging](#) in Q2 2022, which provides a framework for sustainable packaging design and innovation.
- Held its first in-person [CPP Partners' Summit](#) in Q4 2022, convening stakeholders for a day of knowledge sharing and collaboration.
- Co-hosted the Plastics Pacts of the Americas to share knowledge and collaborate on solutions in Q1 2023.
- Published the [British Columbia Industrial, Commercial and Institutional Packaging and Paper Products Waste Flows Study](#) in Q1 2023.
- Launched the CPP Reuse Working Group in Q1 2023, with a focus on exploring new models and approaches for promoting reuse and refill models across Canada.
- Brokered several pilots to increase the use of post-consumer recycled content (PCR) in stand-up pouches and case wrap.
- Developed guidance documents aligned with CPP's roadmap targets, which include an Unnecessary and Problematic Plastics List, Recycled Content Guide, Compostable Packaging Guide, Pathways to Mono-material Flexibles, and a Flexibles Roadmap, which are planned for release in 2023.





Achieving Circularity Together

Transitioning to a circular economy for plastics packaging requires sustained collective efforts to transform both the system and ourselves. It also demands continuous work to identify solutions, effect change, and scale innovation collaboratively. All members of the plastic packaging value chain and ecosystem are invited to join on this journey of collaboration, to challenge their thinking, and remain open to system-wide change. **The only pathway to achieving the 2025 targets and circularity for plastics packaging is the one we take together.**

Join the Canada Plastics Pact

Everyone has a vital role to play in realizing a circular economy for plastics packaging.

Contact us



plasticspact.ca



info@plasticspact.ca



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TAKE ACTION

