



Frequently Asked Questions (FAQ)

Collaboration between CPP, CIAC, and CM

Investing in Infrastructure and Innovation to Achieve a Low-Carbon Circular Economy for Plastics

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What are the objectives of this new collaboration?

The Canada Plastics Pact (CPP), the Chemistry Industry Association of Canada (CIAC), and Circular Materials (CM) have come together to advance a circular plastics economy in Canada. This includes rapidly de-risking and scaling up investments in infrastructure and the innovation needed to accelerate the transition to a low-carbon, circular economy for plastic packaging in Canada.

Why is this collaboration necessary / important?

Canada needs transformational system change to address current recycling challenges and meet the demand for a circular plastics economy – to keep plastics in the economy and out of the environment.

An increasingly uniform and harmonized, pan-Canadian policy requirement for producers to assume responsibility for their packaging in concert with national recycled content requirements is driving the need for investments in collection, sorting, and recycling systems on a regional basis across Canada. Industry is investing in infrastructure and innovation, but needs to work with government, investors, and the finance sector to address the significant gap and collaborate on a de-risking strategy.

A coordinated strategic approach is needed to maximize the triple-bottom-line benefits (environmental, social, and economic). Without a coordinated and strategic approach, Canada risks missing out on investments in both recycling and manufacturing (not just for packaging) and jobs, with an impact on industrial competitiveness as these value-add investments risk flowing to the United States and elsewhere.

What are the infrastructure gaps that need to be addressed?

CPP's foundational research on Canadian plastic packaging flows estimates that approximately 1.89 million tonnes of plastic packaging are generated annually within Canada. Of this amount generated, only 12% is being recycled at end of use (including less than 1% of flexible plastic packaging). Approximately 1.67 million tonnes (or 88%) of plastic packaging materials are being lost as waste in landfills or pollution into the environment.



Infrastructure gaps must be addressed across the entire plastic packaging value chain (collection, sortation, and recycling), supporting the development of a national recycling supply chain with regional integration that returns materials back to producers for use as recycled content in new products and packaging.

A 2019 report prepared by Deloitte for the Government of Canada estimates that Canada's recycling infrastructure capacity gap for dealing with plastics will require a capital investment of \$3.4-\$6.6 billion by 2030 (excluding waste-to-energy infrastructure). This investment estimate does not include the logistics and ecosystem-related infrastructure (e.g., IT platforms), nor does it include processing infrastructure for compostable packaging or reuse models.

What are the priority areas of focus for this collaboration?

CPP, CIAC, and CM will jointly focus on the recycling system in Canada for plastic packaging, including design for recyclability, sortation and processing technologies (e.g., optical sortation, artificial intelligence, etc.), as well as mechanical and molecular or chemical recycling solutions.

The parties will work together to identify the need for incentives that support investments and innovation for upstream system transformations and packaging redesign to being more recyclable inline with frameworks, such as the Canadian Guidance to the Golden Design Rules, through tax incentives and accelerated capital cost allowances to support manufacturers and converters looking to update their facilities. Consideration will also be given to the infrastructure investment needs and priorities for reuse models and compostables.

The focus on mechanical and advanced chemical recycling as it relates to this tripartite collaboration is not to support the continued use of challenging to recycle packaging and other products. The intent of this collaboration is to focus any funding requests on closing the innovation and infrastructure gaps to ensure the recycling system in Canada can manage the end of life of products on the market (both today and for the future), placing emphasis on the technologies and infrastructure needed to support the industry transition to packaging and products that are designed for recyclability at end of life (e.g., in line with the Golden Design Rules Canadian Guidance).

Any proposed investments in technologies and infrastructure must be able to handle products and resins that are part of the pathway to circular plastics. That said, this collaboration recognizes that many advanced technologies are able to process multiple types of products and resins (i.e., the fundamental technologies can be applied for multiple types of resins, being able to convert them back into their polymer and monomer forms). As such, weighting criteria will be developed to support project evaluation to promote those investments that best align with packaging designed for recyclability (e.g., in line with the Golden Design Rules Canadian Guidance).

What are the key “asks” to governments?

1. That governments work with industry to send a market signal by investing in critical infrastructure for recycling, helping to ‘de-risk’ private capital – including support from the Canada Infrastructure Bank and Canada Growth Fund.
2. That governments work with industry to address the funding gap that exists between pilot and demonstration projects for modern recycling technologies (including sortation, mechanical, and molecular), ensuring that capital exists to support commercial scale-up of critical technology applications and solutions.
3. That governments support a technology innovation program that will enable design for recyclability solutions and for recycling technologies, including the support of applied research and techno-economic assessments.

What does ‘de-risking’ private capital mean?

The commercial deployment of advanced plastics recycling technologies face two key market risks:

- Uncertain and unstable supply, prices, and quality of sorted collected plastics; and
- Uncertain and unstable demand for polymers, monomers, and chemical carriers produced by recycling processes.

Mitigating the supply-side risk are the plastic packaging collection, sorting, and recycling supply-chains that are being procured by stewardship and producer responsibility organizations (e.g., Circular Materials) under Extended Producer Responsibility (EPR) policies. These systems will go a long way to ensuring recyclers have access to supplies of high-quality, sorted plastics feedstocks for mechanical and advanced molecular recycling.

On the demand side of the ledger, producers that make plastic products or use plastic packaging are driving demand for recycled plastics to meet regulated recycled content targets as well as to meet internal recycling and greenhouse gas reduction objectives. This demand means recyclers will need ready markets for what they produce.

However, a core risk for innovators whose technologies are at bench or pilot scale is access to capital and the financial risk of taking the next step to commercial scale. Here, public sector support for private capital to drive commercial scale-up of technology applications and solutions will serve to mitigate financial risk and will set the stage for accelerated innovation towards a circular economy for plastics. Specifically:

- Supporting technical and economic assessments (TEA) of advanced recycling technologies to demonstrate and prove their recycling and energy performance and to provide confident estimates of returns on capital of those technologies operating at scale;
- Providing direct financial support for additional research necessary to take proven pilot scale technologies to commercial scale; and
- Providing public capital support to complement and backstop private capitalization of verified recycling technologies.



More Information?

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