



ROADMAP TO 2025 SUPPLEMENT

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Why does the Canada Plastics Pact Roadmap to 2025 have this supplement?

The work of the Canada Plastics Pact (CPP) is focused on driving a broad transition to a circular plastics packaging economy for Canada. This is, fundamentally, a complex and multidimensional undertaking involving a large set of market actors and governments. Creating the Canada Plastics Pact [Roadmap to 2025](#) involved making sense of this enormous complexity, and from that distilling a vision and shared action plan that can be used to drive and inspire the work of many companies, organizations and governments.

This process of distillation required making sense of the context for this work in Canada (and beyond) and making assumptions about the nature of the challenges and changes this work considers. The information gleaned and assumptions made were driven by facts and science, but they also contained many subjective choices, particularly around emphasis and interpretation. Given the changing context and uncertainty of this work, by publishing this supplement we fundamentally recognize that different choices could have been made, and only through action and the passage of time can we judge their veracity.

As such, the intention of this Supplement to the Canada Plastics Pact Roadmap to 2025 is to provide insight into the thinking and processes that underpin the choices the CPP has made to date in the development of the CPP Roadmap (“the Roadmap”), how they have affected this version of the Roadmap and how they might affect the future work of the CPP. It is intended for CPP Partners interested in the “why” behind how we work and the directionality of the CPP, and also for other Pacts and interested stakeholders curious about the approach that the Canada Plastics Pact is taking. Our hope is for this document to contribute to the dialogue around practices for change in complex systems, specifically for circular economy systems, and build collective capacity to respond to such complexity with maturity and efficacy.

What is a complex system and what does it have to do with the CPP?

Complex systems are all around us. Often referred to as “wholes greater than the sum of the parts”¹ complex systems cannot be understood solely by looking at their parts; the interplay between the parts of the system is as, if not more, important than the parts themselves. Complex systems are driven by diverse actors. Effects in one part of the system resonate in and impact different areas of the system, often in unexpected and disproportional ways (i.e. small causes do not always have small outcomes). Complex systems are also characterized in part by emergence – patterns, events, activities etc. that result from the interaction between system actors at multiple levels. Behavior that emerges at the system level is not always predictable from studying the individual elements of the system.

The plastics packaging ecosystem in Canada is a complex system, comprised of a multiplicity of actors and elements, all with various motivations, goals, information processing practices and so forth. Transitioning this system from a linear take-make-waste economy to circularity is a complex undertaking. As such, the CPP aims to leverage practices in systems thinking and complexity to support the transformative process of transitioning to a circular plastics packaging economy. In so doing, we aim to learn as we go what is working or not and adapt accordingly. This is what we call an adaptive approach. The primary elements of this are described below.

¹ <https://uwaterloo.ca/complexity-innovation/about/what-are-complex-systems>

What is the CPP’s “adaptive approach”?

The Roadmap describes the direction, strategies, outcomes and critical opening moves required to make progress toward reaching the CPP’s 2025 targets, en route to achieving the vision of a fully circular economy for plastics packaging in Canada by 2035. The CPP’s partners have the collective power to catalyze this transition. But the journey will be long and the context and players dynamic. It will require adaptation as we “learn our way forward”. Our adaptive approach is currently by two particularly important attributes **1) Learning By Doing**, and **2) Three Horizons Thinking**.

The CPP’s **Learning By Doing** approach recognizes how quickly the context for plastics packaging is changing by articulating outcomes for 2025, but not detailed plans for each step. Instead, the CPP will begin the journey with sensible first moves, each of which are stepping stones for potential future actions. We will continuously monitor three areas of progress and performance to gather information on what is working and what is not and correct our collective course along the way. These three areas are:

- The **collaboration health** of the CPP—the extent to which the CPP is working well, for whom, how the collaboration can be improved, and the implications for the CPP’s next steps
- The **context** in which the CPP operates, including emerging signals, trends, issues and activities that may influence the CPP’s direction
- **Progress and impacts**, as measured against the CPP’s targets and the emerging challenges the CPP faces

This approach puts a high priority on constantly interrogating our work to date to make sure we’re taking the right actions and moving in the right direction to achieve the CPP vision.

Three Horizons Thinking is a vital tool for working with complex systems; it embraces uncertainty and change. Developed by members of the **International Futures Forum** over 10 years, the Three Horizons framework is a foresight tool that helps structure thinking about the future in ways that spark innovation.

- **Horizon 1** is business as usual, encompassing practices that have worked for a long time, and is characterized by sustaining innovation that keeps the status quo going.
- **Horizon 3** is the envisioned future (see the CPP’s 2035 Vision), shaped by the fundamental shifts in social, ecological, economic, cultural and technological changes. Experiences of this future are already present today as experiments.
- **Horizon 2** is the creative transition space and innovations that either extend the status quo (H2-) or disrupt and transform it (H2I+) to varying degrees. This change can be regenerative, neutral or degenerative.

Changes from the established patterns of Horizon 1 to the emergence of fundamentally new patterns in Horizon 3 occur through the transition activity of Horizon 2 (**Wahl, Daniel Christianson, May 2021**). Horizon 1 has many aspects that are vital to the functioning of society, which must be maintained and optimized as we transition to the desired future.

For this reason, the CPP has placed significant focus in the early stages of the Roadmap on optimizing the current systems of packaging through reduction/substitution, elimination, and recycling (Horizon 1), while preparing the ground for transition experiments (Horizon 2) that will accelerate our collective progress toward our 2035 vision (Horizon 3). These Horizon 3 changes are more fundamental and involve new business models for reuse, producers reenvisioning their packaging supply chains to include post-consumer use, and significant technological changes.

This approach is based on the hypothesis that applying considerable attention to phasing out hard-to-collect, hard-to-recycle materials and optimizing recycling for our Horizon 1 work will yield important short-term impact and quick wins and, in so doing, build buy-in to longer-term regenerative and Horizon 2+ work such as business model and material format transitions and innovations. This H2+ work is already underway, and will be addressed simultaneously along with H1 optimization through the piloting of reuse and refill models, and new technologies. In this way, we are “building the bike while riding it”, and believe this is a viable way forward. This hypothesis is being tested in real time as we execute on the Roadmap and will be continuously evaluated in the manner noted above.

How did this adaptive approach inform the Roadmap?

The Roadmap has been developed in a collaborative, participatory process involving over 200 individuals and organizations from across the plastics packaging value chain in Canada. This six-month creative project included dialogue interviews, virtual workshops, collaboration and compromise as the Roadmap evolved from concept to fully formed vision and plan.

The Roadmap builds on the foundations provided by the Ellen MacArthur Foundation’s [New Plastics Economy Initiative](#) and the [plastics pacts produced in other jurisdictions](#) working under the guidance of the foundation’s principles. The CPP has also drawn on the experience of its founding partner [The Natural Step Canada](#) and its lab processes, and been inspired and informed by best-in-class practices in complex change management, [such as the multi-level perspective](#), and other social lab approaches including (but not limited to) the work of [Complexity University](#); [Reos Partners](#), [Social Labs](#) and others.

The Roadmap is built on the understanding that the actions laid out in the Roadmap are interconnected and interdependent. As such, they must be pursued simultaneously for them to succeed, rather than narrowing in on any one part of the value chain. In this way, we are pursuing H1 and H2+ work concurrently. Because the plastics packaging ecosystem is complex, there is uncertainty regarding the knock-on effects of any one or multiple activities. The CPP aims to remain nimble, learning as we go and adjusting as needed based on “feedback from the system” i.e. what happens as a result of our initial work.

As with all work in complex systems, context is critical. Our understanding of the context in which the CPP is operating has heavily influenced the choices and pathways of the Roadmap. Our understanding of the context is itself informed by a series of assumptions that come from our collective experience in and observations of the plastics packaging ecosystem and primary and secondary research.

The CPP Context

Core assumptions

For this first iteration of the Roadmap, we are making our core assumptions and expected challenges explicit, both to build trust and to clarify the CPP's own biases, with the goal of providing a forum to explore and correct them as needed.

Here are the primary assumptions made in setting the CPP's strategic priorities for this initial Roadmap:

- **Plastic packaging has a key role to play in any future Canadian economy**, particularly in the areas of food safety, health and retail
- **Without transparency of material flows, particularly regarding the IC&I sector, clarity on the highest impact solutions will be limited**
- **Nationally consistent policy development is critical to the success of the transition to a circular economy for plastic packaging**
- **Businesses that do not transition toward a circular economy run the risk of greater exposure** to commodity shocks, natural resource crises, price instabilities, investor pressure, and brand risk than the companies that have embraced a circular approach
- **Business opportunities exist for companies that aim to invest in clean and inclusive growth**; the circular economy transition presents many such opportunities
- **Economies of scale for reuse/refill, collection, processing, and end markets are crucial for a transition to a circular plastics packaging economy**
- **Without well-designed regulation and widespread voluntary agreements, the market will tend toward choosing the least expensive way of responding to the plastic packaging challenge.** For the foreseeable future that will mean using virgin resin and sending used plastics to landfill or incineration
- **Consumers and investors will continue to push for both the reduction of virgin resins (derived from fossil fuels) and the creation of a sustainable circular economy.** This is fueled by the climate crisis and the urgent need for greenhouse gas reductions, as well as the increasing presence of millennials and Generation Z in politics and the workforce, demanding a stable future and baby boomers looking to secure a sustainable legacy
- In some cases, **plastics will be replaced by other materials** that meet the same performance requirements without the attendant challenges
- **Global markets – and the EU in particular – will continue to evolve their own circular economies for plastics and require trading partners to do the same.** Degrees of participation in the circular economy (along with reductions in associated greenhouse gas emissions) will be required to maintain or capture new trading markets
- **The emerging policy direction for plastics in Canada will continue – and grow.** This expansion will include Extended Producer Responsibility (EPR), mandatory content requirements, bans, levies, and more stringent waste and plastics policies.
- **Optimizing the recycling system will provide early benefits in the transition to circular plastics packaging.** The mechanisms for this process are known and can be rapidly optimized, providing knock-on economic advantages as the domestic recycling industry matures and building buy in for future moves toward circularity
- **Compostable packaging is an important pathway in certain circumstances**, combined with the right collection and processing infrastructure
- **Building the foundation for longer term systemic transformation and innovation in business models, material innovations, and data transparency should begin now**

- **Together, CPP signatories have the capacity to send clear market signals, “green-lighting” the circular plastic packaging economy** (e.g. through large-scale procurement of PCR resins). This will launch a whole-market shift toward this new economy in Canada
- The context in which the CPP is operating is complex and changes rapidly. For this reason, **an adaptive response that prioritizes “opening moves” and rapid learn-by-doing cycles will best serve the needed transition**

Our understanding of the CPP context is further informed by research completed in 2020 that outlines key barriers to achieving a circular plastics packaging economy for Canada. These are detailed below.

Main barriers to achieving the CPP’s targets

There are a number of initial conditions that act as significant barriers in the pursuit of the CPP’s goal of achieving a circular economy for plastics packaging in Canada. The Smart Prosperity Institute’s 2020 report, *A Vision for A Circular Plastics Packaging Economy in Canada*, provides a full analysis of these challenges. In brief:

- **Under current market conditions, producing plastics from fossil fuels is cheaper than reusing, recycling or producing them from renewable chemistries.**
The economics of transitioning to circular plastic packaging encounters challenges due to subsidies for the production of fossil-based plastics; large-scale efficiencies accruing from their integration in existing oil and gas production; and price differentials between renewable and recycled plastics and fossil-based resins.
- **Because externalities such as pollution and waste are not included in prices, they effectively subsidize the status quo for plastics.** This includes up- and downstream GHG emissions and plastic leakage into the environment.

- **The exchange of information between various actors in the plastics life-cycle is poor, leading to non-circular choices.** This includes information asymmetries between designers, producers, processors and others.
- **There are technological barriers to the circular economy** which are not addressed because these barriers reduce incentives to do so.
- **Existing policies and regulations impede the development of the circular economy.**

Canadian characteristics

In discussions among our partners, the CPP has identified several factors unique to the Canadian context that must also be taken into account to achieve a circular plastics packaging economy here in Canada. In brief:

- **Consumer buy-in is critical to developing a circular economy in Canada.** The customers of businesses down the whole length of the plastics value chain are major drivers of this transition, and they must be engaged to move the system forward. A crucial role of the CPP is to help our partners move their customers toward accepting and effectively using circular plastics packaging systems, and to shift the narrative around plastic packaging in ways supportive of this transition.
- **Public sector buy-in is critical to developing a circular economy in Canada.** The Canadian public is a key stakeholder in the transition to a circular economy and many citizens are already demanding solutions to the plastics challenge. Governments at multiple levels have begun to respond, and the transition will require harmonized & consistent enabling policies and regulations to provide further incentives. The CPP aims to provide informed input into these ongoing policy discussions.

- **Canada’s circular economy cannot be entirely “made in Canada.”** The Canadian plastic packaging market is cross-border. Packaging design for companies with North American headquarters is based largely in the United States and uses the same design for the whole North American market. PCR collection, sorting and supply is also cross-border. The CPP will thus take a North American approach wherever possible and appropriate and seek the unique opportunities it creates, particularly as Canada makes a perfect test bed for the larger plastics marketplace with its accessible recycling infrastructure, strong supporting policies (such as EPR), consolidated market, and small population.
- **Canada’s circular economy must include the IC&I sector.** The IC&I (industrial, commercial and institutional) sector account for more than half of plastic packaging in the Canadian marketplace. But the sector provides very low visibility into its packaging flows, making it difficult to assess the best points of intervention. The CPP will therefore endeavour to achieve clarity on the baseline status for IC&I and identify opportunities to expand the circular economy of plastics packaging into the sector. At present, however, this lack of information and insight makes it impossible to act immediately.
- **The first steps toward a circular economy are reduction and elimination.** Eliminating unnecessary plastics packaging and reducing overall use of virgin resin (and other challenging resins and formats) are the obvious early moves in the transition to a full circular economy. The CPP has focussed its initial efforts on aligning stakeholders across the value chain regarding which items to reduce and eliminate to determine procurement details and necessary infrastructure investments.
- **The next steps toward a circular economy focus on higher-value uses.** The strategic tools of reuse, refill and recycling, which optimize recycling systems to keep plastics packaging in technical loops, are crucial to the development of a full circular economy. Not all such opportunities are at the same level of readiness for deployment, however, and other solutions are yet to be discovered. What’s more, new business models favouring reuse and refill will take longer to develop than existing recycling systems undergoing optimization. The CPP’s approach is to “pilot the future” while “optimizing the present” instead of trading one solution for the other. Early investments in recycling optimization can have a significant short-term impact. Building-out and piloting future reuse and refill systems today can help them become the norm over time.

What is next for the CPP?

Future iterations of the Roadmap will include learning and pivots based on accrued experience and ongoing evaluation, and will also address new topics. This will include, at minimum, ways in which the CPP and Canada's emerging circular plastics packaging economy intersect with social and equity issues, and the role of the CPP and a circular plastics packaging economy in addressing regeneration of the natural environment.

Stay tuned for future reports and supplements detailing our learning by doing along the route!

**Questions about the Roadmap or this Supplement?
Talk with us!**



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