

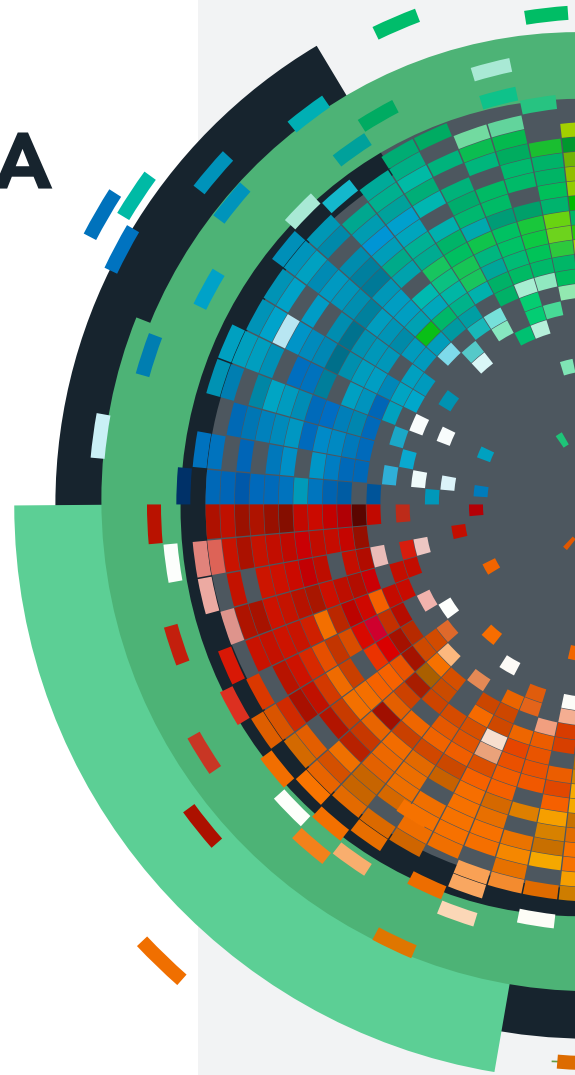
Circular Economy Leadership Coalition



A CIRCULAR ECONOMY FOR PLASTICS IN CANADA

A bold vision for less waste
and more value

Learn more
circularconomyleaders.ca



A Policy Brief from the Circular Economy
Leadership Coalition

For more detail, see A Vision for a Circular Economy for Plastics in Canada
published by Smart Prosperity Institute in February 2019

INTRODUCTION

**A BOLD VISION FOR LESS WASTE
AND MORE VALUE**

The way that we use and dispose of plastic does not work. Not for the planet, and not for the economy. Canadian citizens, businesses and policy-makers are increasingly and rightfully concerned with plastic waste. Citizens and consumers are demanding that we find a more sustainable approach to plastics. Many businesses share their customers' and consumers' concerns, and are looking for creative, effective ways to capture more value and reduce waste.

The current linear model of take-make-waste is bad for the planet, and bad for business, too. Plastics are manufactured from raw materials. Much of it is used for a limited time, and then huge volumes are disposed of in our landfills and or leak into the environment.


Globally, as little as 2% of plastics may actually end up being recycled for manufacturing in a closed-loop to displace virgin materials.¹ Valued at between \$100 and \$150 billion annually, 95% of the material value of plastic packaging is lost to the global economy after only a single use.² In Canada, only about 11-12% of the approximately 3.84 million tonnes of plastics used annually is collected for recycling, and a significant portion of this is never actually recycled. This way of doing things is highly wasteful, harmful to the environment, unsustainable in the long-term, and a missed opportunity as value is literally thrown away.

The good news is that Canada has the opportunity to be a world leader in building a sustainable, prosperous, zero-waste, low-carbon-emitting circular economy that benefits our lives and contributes to the resilience and health of the planet. This is a landmark opportunity, and one that we must seize immediately. By transitioning to a circular economy, it is possible to have a thriving economy that benefits all, in which nothing is wasted and materials are reused and recycled in a closed and sustainable loop.

This moment demands of us our brightest thinking and our boldest decision-making. This brief puts forward a vision for a circular economy for plastics in Canada. By exploring both the benefits and the barriers, we start to forge the path towards a sustainable, more productive economy. It outlines tangible recommendations for policy-makers who are seeking to transition to an economy where waste is designed out of the system, so that Canadians enjoy economic, environmental and social well-being.



WHAT IS A CIRCULAR ECONOMY?



A circular economy is a sustainable, productive economic model that is financially, environmentally and socially sustainable. It operates in a continually evolving cycle. Waste is designed out of the system, and is returned to production through reuse and recycling of materials. It is characterized by this closed loop flow of materials, where its systems recirculate materials using renewable energy. It does this without depleting resources and can be perpetuated indefinitely without any accumulation of waste in the environment. This is being embraced by businesses and governments globally, because of the opportunity it holds for capturing economic value while fostering environmental sustainability.

The circular economy is a system-wide transformation and transition that requires bold action and decision-making. It calls on us to shift immediately to a more productive and sustainable economy. This is not about incremental change, or just more recycling. It is about a shift in how we operate, so as to create a new economy that captures opportunity for economic, environmental and social well-being.

WHAT IS A CIRCULAR ECONOMY FOR PLASTICS IN CANADA?

A plastics circular economy is a prosperous economy that recirculates materials, keeping plastics out of the environment and in the economy. It harnesses the extraordinary material properties of a wide range of plastics, and captures their full value but without waste or harmful emissions.

A plastics circular economy:

- reduces plastic use
- makes use of products for as long as possible, including by choosing high-quality, long-lasting, useful and necessary products
- produces plastics from renewable sources without harming biodiversity
- is powered by renewable energy
- reuses and recycles plastics within the economy without leakage to the environment
- generates no waste or harmful emissions
- develops markets for secondhand products
- restores to health the ecosystems that have been damaged by the manufacturing, use and end-of-life of plastics, such as oceans and waterways

A plastics circular economy in Canada would:

- recirculate the hydrocarbon molecules of plastics, to either displace the demand for raw materials or to be consumed as nutrients in living systems without harm
- use renewable energy to power each life-cycle stage of plastic
- shift to adopting renewable resins if they are compatible with the recycling process, understanding that compostable plastic packaging is not a one-size-fits-all solution, but is a strategic approach for specific, targeted applications³

A plastics circular economy in Canada calls on us to bring our brightest thinking and new science to bear, as we tackle both the demand and supply sides of plastics.



BARRIERS AND BENEFITS TO A CIRCULAR ECONOMY IN CANADA

BARRIERS

Canada does not have a plastics circular economy because under current economic and policy conditions, the cheapest way to make and use plastics is the take-make-waste linear economy.

The barriers currently facing the evolution of a circular economy for plastics in Canada include:

- economic disparities driven by direct production subsidies for fossil-based plastics
- un-priced and unmitigated externalities
- poor exchange of information
- technological barriers
- existing policies and regulations that block the development of circular economy practices
- limited options to participate in the circular economy for plastics from a consumer perspective
- lack of knowledge about the circular economy by the value chain actors
- lack of connection between actors of the value chain

BENEFITS

The current linear model represents a significant lost opportunity in wasted plastic. The circular economy presents an opportunity for capturing that value.

The loss of 88% and more of the plastic used in the Canadian economy results in squandered non-renewable fossil resources, increased greenhouse gases and the discharge of plastics to land and marine environments.⁴ By preventing that loss through the policies and market measures outlined below, it is possible to prevent the deadweight loss of value to the Canadian economy, while preventing waste from entering our land and water.

In addition, Canada has more than 200 facilities processing and recycling plastics, some using new, emerging plastics chemical recycling technologies that have recently been commercialized or are on the cusp of commercialization. Few of these facilities are operating to capacity. There is an economic opportunity in supporting some of these facilities by helping to scale their innovations, positioning Canada as a leader in the emergent circular economy, and capturing our portion of what is expected to be a USD \$55 Billion a year global plastics recycling profit pool by 2030.⁵

SOLUTIONS

**RECOMMENDATIONS FOR
POLICY-MAKERS**

Circularity will result from market evolution, not revolution. While it will not happen overnight, it must begin now.

This evolution involves:

- building new commercial relationships
- transforming existing exchanges and relationships
- redesigning products and packaging
- developing and scaling new business models that reinvent products and packaging systems to be delivered as services
- developing technologies
- making investments
- changing operations
- restoring to health ecosystems that have been damaged by the production, use and end-of-life of plastics

This evolution needs to be segmented properly in order to ensure long-term prosperity and efficiency. It also involves shifting consumer cultural norms by changing patterns in the consumption and use of plastics, increasing participation in circular resource recovery systems, and reducing and preventing plastic pollution.

Governments at all levels have a vital role to play in catalyzing a circular economy for plastics.

Waste policy falls largely (though not exclusively) within the jurisdiction of Canadian provinces and territories. In addition, the federal government can play a vitally important role in increasing the efficiency of provincial waste management policies by collaborating with the provinces and territories. To achieve progress towards a circular economy, the federal government and the provinces and territories must establish a collaborative approach to national harmonization of definitions, standards, targets and protocols while recognizing and respecting the division of powers between them.

There are five initial practical policies and market instruments that need to be explored and embraced in order to catalyze a circular economy for plastics in Canada:

- 1** **Assign property rights for end-of-life plastic waste to producers and set end-of-life performance-based regulatory requirements** such as recycling targets. One primary example is full or extended producer responsibility (EPR), a policy mechanism that encourages producers to build reverse supply-chains for products and packaging. In the case of plastics, this would create a reliable supply of reused plastic components and/or recycled plastics for use in manufacturing.
- 2** **Set recycled content performance standards** requiring inclusion of a minimum percentage of recycled content in plastic products and packaging. This policy creates demand for recycled plastics generated by EPR and as such is a demand side complement to EPR. We should mandate minimum percentages of reusable, recoverable, recyclable or compostable materials in all new products, so that they are designed for appropriate deconstruction at the end of their useful life.

3

Create common definitions, performance standards, measurement and assessment protocols. These will serve to create administrative efficiency and reduce transaction costs for participants in the plastics life-cycle. They will also facilitate the scaling up of reverse supply-chains to pan-provincial and territorial regional systems that become more efficient as they scale.

4

Economic instruments and/ or prohibitions (“bans”), such as:

- Single-use plastics tax such as a plastic bag tax (affecting consumer demand)
- Waste disposal levies discouraging disposal to landfill
- Use bans that prevent the supply of certain plastic products and packaging that are difficult to collect and/or recycle
- Disposal bans that prohibit the disposal of those that can be recycled
- It is important to note that instruments and bans are policy tools that have been used in different combinations in countries worldwide, and different approaches have proven effective in different contexts. The right policy mix between bans and/ or economic instruments needs to be explored, so as to use the right tools for the Canadian context.

5

Price greenhouse gas emissions associated with various stages in the life-cycle of plastics.

These policies will not transition Canada entirely to a plastics circular economy, but they are an effective and vital start. Future recommended actions include tools for information exchange across supply chains, as well as the improvement of public infrastructure.

1 *The New Plastics Economy: Rethinking the future of plastics* Ellen MacArthur Foundation See:

<https://www.ellenmacarthurfoundation.org/news/the-new-plastics-economy-rethinking-the-future-of-plastics-infographics>

2 *Strategy on Zero Plastic Waste* Canadian Council of Ministers of the Environment. November 23, 2018.

3 *The New Plastics Economy: Rethinking the future of plastics* Ellen MacArthur Foundation See:

<https://www.ellenmacarthurfoundation.org/news/the-new-plastics-economy-rethinking-the-future-of-plastics-infographics>

4 *The biggest source of ocean plastic may not be what you think* Evgeni Matveev, Canadian Broadcasting Corporation News. July 2nd 2018

5 *No time to waste: What plastics recycling could offer* McKinsey & Company. September 2018

CONCLUSION

There is a role for everyone to play in the transition to a circular economy for plastics in Canada. Citizens, scientists, governments at all levels, and businesses will all need to work together to evolve from a wasteful model to one that is circular and regenerative. We must take this opportunity to reduce environmental harm while capturing much greater economic value. All of this is possible with the solution of a circular economy.

The practical policies and market interventions recommended in this brief present a once-in-a-generation opportunity for Canada. Before us, there is a moment to rise to our national and global environmental challenges with a circular economy that can lead to a sustainable, prosperous, zero-waste, low-carbon-emitting circular economy that benefits our environmental, economic and social well-being .



The Circular Economy Leadership Coalition

The Circular Economy Leadership Coalition (CELC) is a not-for-profit alliance of corporate and NGO leaders, think tanks and sustainability experts who believe **Canada can be a world leader in adopting sustainable, prosperous, zero-waste, low-carbon-emitting solutions for a global circular economy.**

As a coalition, we recognize that our natural resources are not infinite, that Canada can do better, and that a circular economy is an opportunity for businesses to reduce costs and environmental impacts.

The coalition believes Canada can be a world leader in achieving and contributing to a truly prosperous and sustainable circular global economy. To do so, the country must accelerate and amplify innovation aimed at eliminating waste and transitioning to a low carbon-emitting circular economy that enhances economic value throughout all parts of Canadian society.



Our Vision

To make Canada a world leader in building a sustainable, prosperous, zero-waste, low-carbon-emitting Circular Economy that benefits the lives of people at home and abroad.



Our Mission

To provide thought leadership, technical expertise and a collaborative platform for the development of pioneering solutions that eliminate waste at all stages of the life cycle of products and accelerate the transition to a circular economy.



Circular Economy Leadership Coalition