CCME

Canadian Council of Ministers of the Environment

Le Conseil canadien des ministres de l'environnement

STRATEGY ON ZERO PLASTIC WASTE

PN 1583

Approved in principle by CCME Council of Ministers November 23, 2018

1 CONTEXT

1.1 Introduction

Plastics are low cost, durable materials used by Canadians on a daily basis. Along with their unrivalled functionality, they provide significant benefits to the Canadian economy and quality of life. For example, they can reduce the energy and greenhouse gas emissions needed to transport goods and products; be a contributing factor to improved health outcomes, as well as reduce food waste by prolonging the life of perishable items; and they can provide durable, high performance materials for use in construction, textile and other sectors. Their production and use is growing faster than any other material due to their many practical uses. However, some of the characteristics that make plastics so valuable also create major challenges for their end-of-life management in order to avoid creating waste and its release into the environment.

The low costs of producing and disposing of plastics have increased the amount of disposable plastic products and packaging entering the consumer market, where over half are designed to be used once and thrown away. Today, an estimated 95% of the material value of plastic packaging, or between $100 and $150 billion dollars annually, is lost to the global economy after only a single use. In addition, plastics' durability, combined with inadequate incentives and infrastructure to recover and recycle this material (globally, only 14% of plastic is collected for recycling) are at the root of an exponentially increasing global environmental problem.

Globally, it is estimated that about 8 million tonnes of plastic waste enters the oceans every year from land. Without additional action and at current rates of consumption and production, this could more than double by 2025. This pollution harms wildlife, damages habitats and fisheries, and can transfer contaminants throughout the food chain. It results in at least $13 billion of damage to marine ecosystems worldwide every year and represents an even greater loss of economic value. The global marine litter and plastic pollution problem, as well as concerns about increasing consumerism and waste, continue to gain media attention worldwide.

Working on innovative solutions to address global plastic waste is vital for protecting our oceans, lakes, waterways and natural environment. Redefining plastic waste as a valuable commodity presents an economic opportunity to conserve resources and build on our competitiveness. In addition, improving plastic recycling rates will reduce GHG emissions. Canadians can show global leadership by moving to a more circular plastics economy—one which captures and retains the value of plastics across their lifecycle. Working together to change how plastics are used and managed will increase prosperity and protect the environment.

1.2 International commitments

Plastic waste and marine litter have emerged alongside climate change as a global environmental priority, creating increasing momentum for change. Many international organisations have advanced global commitments and initiatives to prevent and reduce plastic waste and marine litter. The G7 and G20, for example, have adopted marine litter action plans to focus their efforts. Related work has been underway in many other international fora, including the United Nations Environment Program, International Marine Organization, and the Food and Agriculture Organization.

Through the United Nations, countries committed to the 2030 Sustainable Development Goals, notably target 14.1 to prevent and significantly reduce marine litter by 2025 and goal 12 to ensure

sustainable consumption and production patterns. In 2017, nearly 200 nations signed a United Nations Environment Assembly resolution stressing the importance of long-term elimination of plastic waste in the oceans.

Work towards a circular economy model for plastics accelerated in 2018. Canada as G7 President introduced the Ocean Plastics Charter, and initiatives by the World Economic Forum, the OECD Global Forum on Plastics in a Circular Economy, the European Commission on a European Strategy for Plastics in the Circular Economy led the way. Many countries, states, provinces and municipalities have committed to reducing plastic waste, including setting ambitious recycling targets or restricting some single use products such as plastic bags and take-out containers. Industry is also taking a leadership role through global public commitments that range from recycled content targets, to designing products for recyclability and reuse, producing alternative resins and developing new recycling technologies.

1.3 Canadian leadership

Building on international momentum, Canada launched an Ocean Plastics Charter as part of its 2018 G7 presidency, under the theme of ocean health and marine litter. Adopted by several countries and organisations as a blueprint for action, it advances ambitious targets and solutions for global action in five areas: i) sustainable plastic design, production and markets, ii) waste collection, management and infrastructure, iii) sustainable lifestyles and education, iv) research and innovation and, v) coastal and shoreline clean-up.

Canada also announced it will invest $100 million to support developing countries to develop and implement sound waste management systems and prevent plastic waste from entering the environment, address plastic waste on shorelines, and better manage plastic resources.

Domestically, federal, provincial and territorial governments have worked together to create this CCME zero plastic waste strategy. The strategy lays out the areas for action that are important for Canada, and are consistent with areas presented in the Ocean Plastics Charter. The Strategy builds on the input received from stakeholders, and the public through federally-led consultations and CCME engagement activities. Environment and Climate Change Canada received over 1,900 comments through its on-line consultation on plastic waste, and these were supplemented by a number of substantive letters and petitions by stakeholder groups[1]. Over 700 stakeholders were invited to participate in a CCME on-line survey, and over 220 stakeholders provided detailed responses.

Canada's domestic approach will build on a vast array of government programs and regulations, as well as voluntary initiatives by industry, community and environment organisations. Collaboration under the Canadian Council of Ministers of the Environment (CCME), in particular through continued implementation of existing initiatives such as the Canada-wide Action Plan on Extended Producer Responsibility (CCME, 2009), serves as a foundation for the transformation ahead. The implementation of this strategy will be done within the jurisdictional authority of each order of government and a future action plan will identify complementary measures between governments. The action plan will also outline industry and other stakeholders' commitments, roles and responsibilities.

Taking action to eliminate plastic waste is part of Canada's larger move to a more circular and low carbon economy, where we use our valuable natural resources as efficiently as possible and decrease our greenhouse gas emissions.

G7 CHARLEVOIX BLUEPRINT

OCEAN PLASTICS CHARTER TARGETS

- Working with industry towards 100% reusable, recyclable, or, where viable alternatives do not exist, recoverable, plastics by 2030.
- Working with industry towards increasing recycled content by at least 50% in plastic products where applicable by 2030.
- Working with industry and other orders of government, to recycle and reuse at least 55% of plastic packaging by 2030 and recover 100% of all plastics by 2040.
- Working with industry towards reducing the use of plastic microbeads in rinse-off cosmetics and personal care consumer products, to the extent possible by 2020, and addressing other sources of microplastics.

[1] https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/consultations/moving-toward-zero-plastic-waste/what-we-heard.html

2 CANADA'S VISION FOR PLASTICS IN A CIRCULAR ECONOMY

Recognising the important role of plastics in our economy, this strategy lays out a path to treat this material as an ever-valuable resource and defines areas of work that will contribute to reaching the ambitious plastic waste reduction targets laid out in the Ocean Plastics Charter. The Strategy and its implementation will be an important contribution to achieving both a circular and low-carbon economy and reducing the impact of plastic waste on the environment. It is expected to be a driver for innovation and create opportunities that will increase our competitiveness in new business models, product design solutions, and waste prevention and recovery technologies. A vital element in its success will be the involvement of individuals, industry, stakeholder organisations across Canada, and all orders of government as partners in reaching zero plastic waste.

2.1 A circular economy approach

The flow of materials and energy in the Canadian economy is mostly linear as we extract resources, transform them into products and then dispose the vast majority of them as waste. In contrast, a circular economy aims to keep products and materials in use as long as possible and to maximize their value. This system closes the loop in use of natural resources by reducing, reusing, repairing, remanufacturing, recycling and composting materials or, if no other option exists, recovering energy at their end of life. Studies suggest that by 2030 circular economy strategies could deliver more than USD4 trillion in global economic benefits, while reducing GHG emissions and primary resource consumption by 30-40 percent.

Canada is moving toward a circular economy for plastics by pursuing zero plastic waste. The vision is to keep all plastics in the economy and out of the environment. While there are well-established waste management programs, the systems need to be improved in order to move away from the existing situation whereby more than 89% of our plastics are landfilled and incinerated.

As illustrated, the Strategy recognises the interdependence of three areas of activity as elements of an integrated system: prevention, collection and clean-up, and value recovery. The system's performance must be supported and improved by a wide range of enabling activities such as consumer education, research, regulations and market-based instruments in order to achieve the zero plastic waste goal. Innovation throughout the plastic lifecycle – from design to collection and value recovery – will be essential to capture the economic, social and environmental benefits of zero plastic waste.

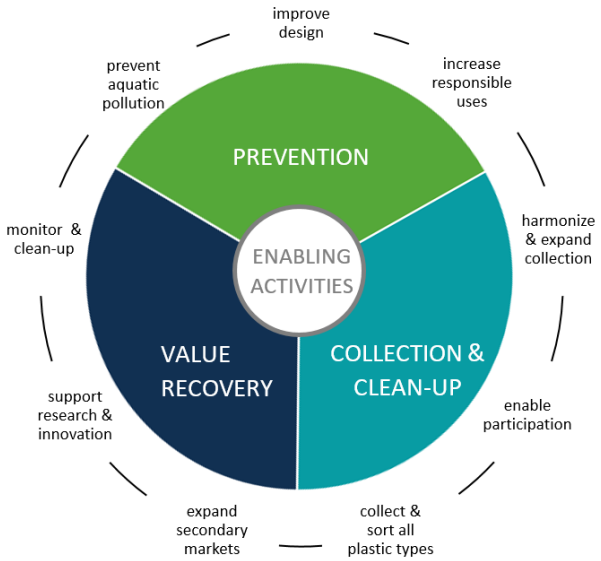


Figure 1: Main areas of action for a circular plastics economy in Canada

The CCME strategy focuses on:

- **Preventing** plastic waste, for example by designing plastic products for longevity and reparability, or reducing demand for disposable plastic items;
- **Collecting** all plastics, including through clean-up, so they are channelled back into the economy; and
- **Recovering**[2] value from all plastics using a range of strategies and processes according to a hierarchy of priority (Figure 2).

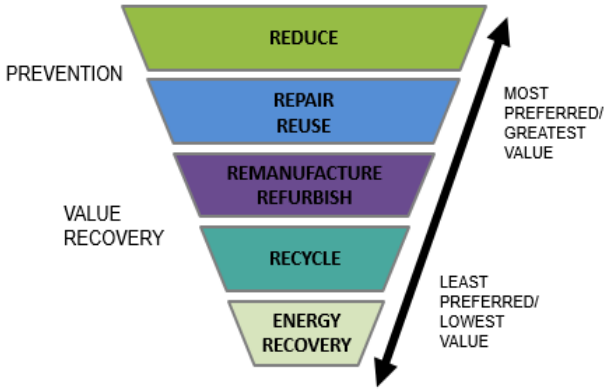


Figure 2. Hierarchy of priority in plastics management

The strategy must also ensure that all parts of Canadian society – including industry, all orders of government, and individuals – play their role in reaching zero plastic waste and reducing marine litter. It will be implemented respecting the division of federal, provincial and territorial responsibilities, as well as ensuring complementarity, and will require pathways that respond to the particular circumstances found in the North. Measures will be varied, reflecting the complexity of plastics use in the economy, and will include enabling activities such as public education. By taking a common and uniform approach and in using a systems perspective, Canada can shift to more responsible production and consumption models.

The actions to achieve zero plastic waste will have an additional benefit and will help in reaching Canada's aspirational Canada-wide waste reduction targets, which are to reduce the amount of waste Canadians send to disposal from a baseline of 706 kg per person in 2014:

- to 490 kg per person by 2030 (a reduction of 30%); and
- to 350 kg per person by 2040 (a reduction of 50%).

3 Framework for Action

Achieving the vision of a circular economy for plastics will require that actions be taken in many areas, in some cases to enhance current performance, and in others, to transform and adopt new practices and behaviours. Ten priority result areas for actions have been identified based on Canadians' and stakeholders' views about plastic waste, and findings from evidence-based

[2] **Recovery** includes all activities at end of life that recover value from plastics waste, rather than disposing of them in landfills or through incineration without energy recovery. Recovery activities are prioritized from high to low value and desirability in accordance with the waste management hierarchy:

- Reuse activities provide the highest value and include direct reuse, servicing and repairing products, followed by remanufacturing, refurbishing and parts harvesting.
- Conventional mechanical recycling separates, grinds and heats products to produce plastic feedstocks or resins.
- Recycling also includes composting and digestion of some plant-based plastic-like materials. Biological materials can be recycled into soil amendments through composting and digestion.
- Chemical recycling refers to processes such as pyrolysis or gasification that convert plastics into petroleum products (e.g., methanol, diesel). These can then be refined back into plastics or other products, which at adequate levels of efficiency for example, could be considered as **recycling**, or could be used as a fuel, which is considered as **energy recovery**.
- Energy recovery involves converting plastic wastes into liquid or solid fuels to generate heat and/or electricity.

analysis. These ten results areas will drive the development of future actions and orient collective efforts to achieve zero plastic waste.

Figure 3. Priority result areas for a Canada-wide approach to zero plastic waste

Result Area 1: All plastic products are designed for greater durability, reuse and recycling

There are thousands of plastic resins, formulations and products on the market in Canada. The most common uses for plastics are for packaging, construction and the automotive sector. Durable products (e.g., appliances, electronics, textiles, furniture) make up about 37% of plastic waste in Canada while non-durable products (e.g., single-use products, packaging) account for the remaining 63%. In addition, plastic microbeads in certain products and microfibers from synthetic clothing are released into wastewater systems during their use. New types of plastics (e.g. bioplastics) and products enter the market every year, sometimes without the infrastructure in place to process them at end-of-life.

The diversity of products and uses greatly complicates the collection, sorting and recycling of plastics at their end-of-life. A single product may contain several kinds of plastics customized to meet a manufacturers' safety, functional and aesthetic requirements, and these can be challenging and costly to collect, identify and separate during recycling. As a result, many of these valuable materials end up in landfills or incinerators.

Integrating reuse and recycling considerations into the design of plastic products is necessary to reduce the costs of bringing these materials back into the economy. It also opens the door to new and innovative products and business models that maximize the usefulness and value of durable products through reuse, repair and refurbishment. Businesses within Canada and around the world are already taking on this challenge and committing to 100% reusable and recyclable plastic products. Achieving these goals will require, among other actions, developing new designs and technologies, as well as common definitions, standards and guidelines.

Result Area 2: The responsible use and recycling of single-use products is significantly increased

Single-use and disposable plastic products – such as shopping bags, cigarettes, razors, straws, utensils, and beverage and take-out containers – are items that are intended to be used only briefly before they are thrown away or recycled. While many of these items can serve a valuable function, such as food waste reduction, storage, or transportation, in some situations they can be avoided or

replaced with reusable, recyclable or compostable alternatives. However, single-use plastics may sometimes be necessary for accessibility, health, safety or security reasons.

Single use and disposable items are often difficult to collect, particularly when used away from home, and can be difficult to recycle if they are small or made of hard to recycle plastics. As a result, they are a source of plastic pollution and make up an estimated 43% of marine litter worldwide. In Canada, single-use plastics are more than a third of all plastic waste and are among the top twelve most collected items during Great Canadian Shoreline Cleanups.

Governments around the world are taking action through research, education and regulations to both find low-impact alternatives to single-use products and increase their collection and recycling rates. Individuals and businesses have an important role to play in their day-to-day decisions to purchase, use or recycle plastic products. Diverse measures, such as the provision of reusable alternatives, the introduction of fees or restrictions on the use of some products (e.g., bags), awareness campaigns, and the implementation of government and corporate operations initiatives can increase the responsible use of plastics and prevent plastic waste.

Result Area 3: Expanded collection systems keep all plastic products in the economy and out of the environment

Approaches to collecting plastics vary across and within all provinces and territories. While over 60% of municipal waste comes from businesses and institutions, most recycling collection is focused on single family households through curbside collection programs. The majority of plastics collected are bottles (59%), other rigid containers (21%) and plastic bags and films (19%). Overall, less than 11% of plastics are collected for recycling with the rest ending up in landfills, incinerators or the environment.

The diversity and complexity of collection systems creates challenges for consumers, businesses and recyclers. Not all consumers have access to recycling options for all of their plastic waste, particularly in remote and Northern communities. Recyclers have to separate and sort an increasingly complex mix of plastic products, with some facilities rejecting more than 25% of collected materials due to contamination. In addition, businesses must navigate different reporting and payment systems in every region they operate, creating additional workload and expense.

Expanding, modernizing and harmonizing collection systems across Canada provides an opportunity to address these issues and increase public participation in recycling. All partners in the system will need to collaborate to identify the most efficient, convenient and cost-effective strategies for collecting more plastic resins and types from all regions, including urban, rural and remote, and from all types of residential buildings, as well as businesses (including farms), institutions and public spaces. Improved collection also includes supporting innovative technologies and processes and considering how governments can work with businesses to build on Canada’s world-leading producer responsibility programs.

Result Area 4: Strong domestic markets and varied end uses drive demand for recycled plastics

The demand for recycled plastics varies based on factors such as the type and quality of the recycled material, the price of its virgin equivalent, and the existence of end uses for the material. Recycled plastic markets and prices change rapidly in response to global oil prices, regulatory requirements and technological developments. For example, when oil prices are low some virgin resins are available at lower prices than recycled resins. While there are proven energy efficiency and environmental benefits from using recycled plastics, these are not reflected in current market prices.

This creates a challenging environment for everyone in the recycled plastics market. Collectors and recyclers are averse to invest in sorting, cleaning and processing plastics that have little market value; meanwhile the fluctuating price, quality and availability of recycled plastics creates a barrier for manufacturers that are interested in using these materials for their products.

There is no single solution to address these issues: diverse measures are needed to increase the supply, demand and quality of recycled plastics. Businesses and governments can drive these markets through the creation of standards, regulations, fees, procurement policies and specifications that support refurbished and recycled content. Improved information-sharing and traceability could also facilitate market transactions. Product stewardship, extended producer responsibility and deposit-refund programs play an important role by securing a stable stream of materials to sustain these markets, including from Northern and remote communities.

Result Area 5: Canada's recycling capacity is world-leading and can process and recover value from all types of plastic waste

Canada has a well-established recycling sector that processes approximately 65% of all plastics collected for recycling (the remaining plastics are exported to North American and overseas markets). There are approximately 80 dedicated plastic recycling facilities in Canada, most located in Ontario and Quebec. While the sector has enough capacity to process the most common, clean and easily recyclable plastic products (e.g., bottles, containers), it has limited capacity to deal with more challenging products, such as polystyrene cups and foams, dirty plastic, or the plastics in electronic equipment and vehicles. There are limited recycling options for some plastics in Canada and North America. Decisions to restrict the importation of plastic wastes for recycling by some countries, such as China, could have significant impacts on processing capacity and may drive investments for new or expanded facilities in Canada.

In order to recover value from all used plastics, Canada's recycling infrastructure will need to be significantly expanded. Enhanced facilities, innovative products and technologies and processes are needed across Canada to deal with increased volumes of all types of plastics. This includes expanding facilities for easy to recycle products, establishing capacity to deal with plastics that aren't currently recycled in Canada, and finding solutions for highly contaminated and hard-to-recycle plastics. This also includes exploring if and how other value recovery processes that are not currently commonplace in Canada, such as reuse, remanufacturing or chemical recycling, could be supported as part of the zero plastic waste solution. Canadian innovators are well-positioned to take advantage of growing global markets in these areas.

Expanding capacity will require investments but it will also deliver important economic and environmental benefits: recent studies suggest that increasing the overall plastics recycling rate from 11% to 75% would create an estimated 15,000 jobs, prevent up to 4 megatonnes of carbon dioxide emissions, and contribute more than $700 million to Canada's GDP. Among other measures, identifying ways to develop market incentives to help make this expansion cost-effective will be necessary.

Result Area 6: Canadian households, businesses and institutions are empowered to prevent and manage plastic waste responsibly

Canada cannot meet its zero plastic waste goal without the participation of all Canadian households, businesses and institutions. Canadians are increasingly aware of plastic pollution and the difficulties of recycling plastics. They want to adopt more sustainable lifestyles but lack consistent and reliable information to inform their actions. Inconsistent labels and the introduction of plastic alternatives, such as compostable plastics, contribute to confusion and uncertainty over where and how to recycle. Businesses and institutions, in particular, have challenges in taking action to reduce plastic waste, which is problematic when considering their significant contribution to the waste stream. All of these factors contribute to a lack of incentives to reduce, reuse and recycle.

Empowering Canadians to use and recycle responsibly involves effective collaboration between the public and private sectors to provide clear and transparent information to consumers. These and other partnerships will determine the mix of incentives and obligations required to ensure maximum participation in the available systems and encourage best practices. Businesses and institutions are well positioned to have positive environmental and educational impacts when they become leaders in plastic waste reduction. Research, education and awareness efforts about sustainable lifestyles and the impacts of marine litter have recently gained momentum and need continued support to engage and inspire Canadians to achieve zero plastic waste. Strengthening standards, including for procurement, such as improving requirements for labelling or recycled content in consumer products, plays a role in helping Canadians use and recycle plastics in the best way possible.

Result Area 7: Plastic pollution generated by aquatic activities is significantly reduced

Canada has vast marine and freshwater resources, with the longest coastline in the world. While the majority of plastic pollution enters the environment from land, sea-based sources also have a significant impact and represent an important source of marine plastic litter. It was estimated that globally about 70% of floating macro plastic debris (by weight) in the open ocean is fishing related. About 640,000 tonnes of fishing gear is lost globally every year; this is estimated to represent less than 10% of global marine litter by volume. Abandoned, lost and otherwise discarded fishing gear (ALDFG) can lead to entanglements and ghost fishing – whereby gear continues to capture and trap marine life. About 100,000 mammals die every year worldwide from marine litter (entanglement and ingestion).

Improving practices and developing solutions for key sectors including fisheries, aquaculture, commercial shipping, recreational water users, offshore industry and research platforms, and tourism (e.g., cruises) are needed to prevent sea-based and freshwater plastic pollution. Work is also needed to improve knowledge about the impacts and solutions to eliminate plastic pollution and change behaviours in these sectors. This can be done through initiatives such as developing and sharing of best practices and expanding and improving regulations and policies (e.g., including preparedness for plastics spills in prevention and response frameworks). Innovative solutions and access to adequate waste diversion and disposal systems are also needed to reduce impacts and minimize dumping at sea (e.g., disposal and recycling at port reception facilities and harbours; environmentally sound retrieval of abandoned vessels or ALDFG).

Result Area 8: Effective research and monitoring systems inform decision-making and measure performance

The environmental and health impacts of plastic waste and marine litter is an emerging area of science, with the majority of research published within the last five years. Research is underway by governments, academia and NGOs to further understand the nature and scope of the issue in Canada. Plastics are found on all of Canada's coasts and in its freshwater systems, including the Great Lakes and Lake Winnipeg. Plastics are found on shorelines and in waters, effluent, sediments, sea ice, wildlife, and in the food Canadians eat. Recognizing the precautionary principle, there is enough information to know this issue needs addressing. However, knowledge gaps remain, and the lack of harmonized monitoring methods and programs makes it challenging to understand the origins, extent and impacts of plastic waste and plastic litter (macro and micro) on environmental and human health as well as the economy.

Decision makers require robust evidence to support meaningful actions and to measure the effectiveness of policy and regulatory measures. Research can take place on a number of fronts, to improve understanding of where macro- and micro-plastic pollution comes from, how it enters the environment and, the impacts it has on people and the environment. Research can be advanced, for example, through collaboration mechanisms, by sharing results through publications, platforms or convening researchers, and by identifying funding sources and opportunities to fill research gaps.

Result Area 9: Effective capture and clean-up of plastic pollution protects Canada's environment, shorelines and waterways

In 2010 about 8,000 tonnes of plastic waste entered oceans from land in Canada. Without any action this could almost double by 2025. Prevention early in the plastic life cycle is imperative to eliminate plastic waste and reduce marine litter. However, work is also needed to address plastic pollution on shorelines, watersheds and waterways.

Capture devices (e.g., sewer grates, storm water capture booms, etc.), removal activities (e.g., shoreline clean-ups, removal of abandoned vessels, etc.), and other remediation efforts (e.g., fences around construction sites, beach trawling, street sweeping, etc.) are effective means to rid the environment of plastic pollution before it breaks down into microplastics, or harms wildlife,

fisheries and ecosystems. For instance, over the last 25 years, over 700,000 volunteers from the Great Canadian Shoreline Cleanup removed more than 1.2 million kg of trash from shorelines across Canada. Among other actions, these clean-ups will need to continue and expand to increase public engagement, build stewardship, and collect data. Efforts are also needed to improve resilience, mitigation and response from events that result in large-scale input of plastic waste into the environment, such as severe flooding and spills of plastics.

Result Area 10: Canadian leadership has accelerated global action to address marine litter and plastic pollution

Concern over marine litter and plastic pollution is global in scale and has implications for ecosystem health everywhere on the planet. Governments, agencies and industries in developed and developing countries are independently taking action on the problem from education campaigns to recycling targets, to bans of single use products. With the sheer scale of both plastics production and trade, and plastic waste generation, and the social and economic diversity of countries working towards this goal, coordination and communication between actors is crucial.

Canadian leadership abroad and at home aims to facilitate and support a wide range of actions throughout the life-cycle of plastics. Fostering alliances between stakeholders, facilitating the exchange of knowledge and best practices, connecting research and development efforts in Canada and abroad, will all support tailored solutions and the deployment of innovative technologies to address plastic waste. Canadian contributions in these areas will help maintain the necessary international momentum to act and keep marine litter a top environmental priority.

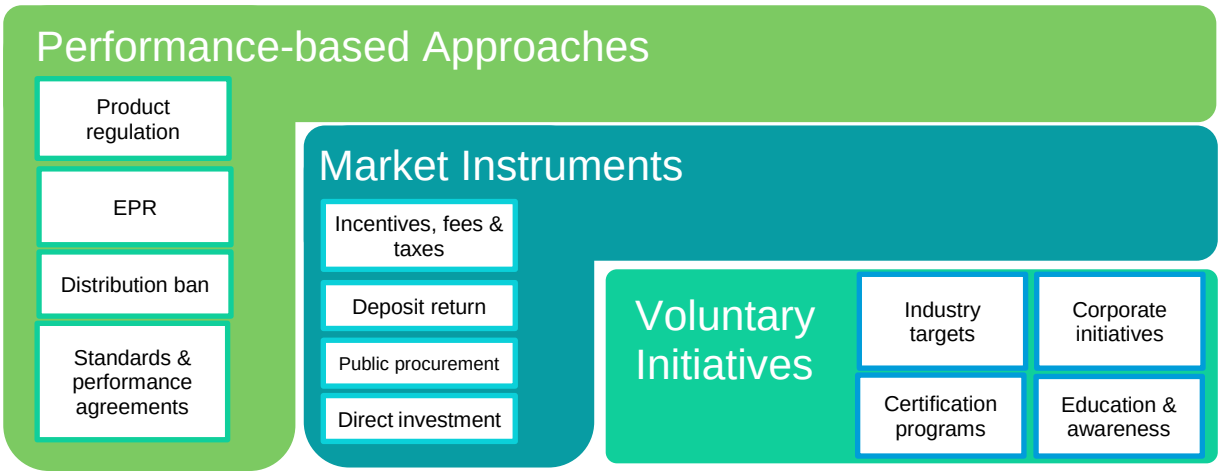
4 Toward an Action Plan

An Action Plan will be developed by the federal, provincial and territorial governments in collaboration with a variety of organisations, stakeholders and other interested parties and will define key actions needed to support the priority results areas.

4.1 Shared roles, responsibilities and leadership

This strategy recognises that many parties must collaborate to achieve zero plastic waste, including resin producers, product manufacturers, retailers and consumers, waste management stakeholders (e.g., municipal operators, recyclers, shore clean-up groups) and various orders of government. The success of this strategy will also be dependent on a broad range of complementary measures and actions, which would enable different parties to successfully participate and take leadership in the result areas discussed above. A few examples of possible measures that may be included in the supporting action plan are provided in Figure 4.

Figure 4. Examples of complementary range of measures and enabling activities



4.2 Engagement and collaboration

The input of stakeholders and other parties, including organisations throughout the entire plastic value chain, will be essential to chart the path forward. This work will be advanced in a collaborative manner to identify and evaluate the key elements of the action plan and the best placed organisations to lead them. Various means, such as technical workshops, webinars and on-line engagement, may be utilised to arrive at the range of solutions necessary to achieve zero plastic waste, and to identify the conditions that will lead to their successful implementation.

In addition, the following principles are key to collaborating on the development and implementation of the action plan:

- there is a shared responsibility for preventing plastic waste, and for supporting innovation and behaviour change through cost-effective measures;
- prevention is the first basis for action, consistent with the value recovery hierarchy (see Figure 2);
- the use of evidence-based decision-making and means to track progress allow for adaptive management; and,
- effective information exchange is vital to identify synergies between actors and avoid duplication.

In moving to a circular economy for plastics with this collaborative approach, Canada will be positioning itself as a leader in forward-looking and innovative waste prevention and management solutions.

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