EXECUTIVE SUMMARY

Reuse in Canada Landscape Scan:

Understanding Opportunities to Advance Reuse Systems

May 2023

zeroWASTE

NATIONAL ZERO WASTE COUNCIL

An Initiative of Metro Vancouver

The National Zero Waste Council, an initiative of Metro Vancouver, is leading Canada's transition to a circular economy by bringing together governments, businesses and NGOs to advance a waste prevention agenda that maximizes economic opportunities for the benefit of all Canadians.

Acknowledgments

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About This Report

The National Zero Waste Council has a legacy of work on product design and packaging as well as more recent work on plastics and construction waste that can be leveraged to advance the creation of reuse systems. To fully understand the gaps and opportunities in the reuse landscape in Canada, the National Zero Waste Council commissioned the report Reuse in Canada Landscape Scan: Understanding Opportunities to Advance Reuse Systems with the intent to contribute to the expansion of reuse systems in Canada.
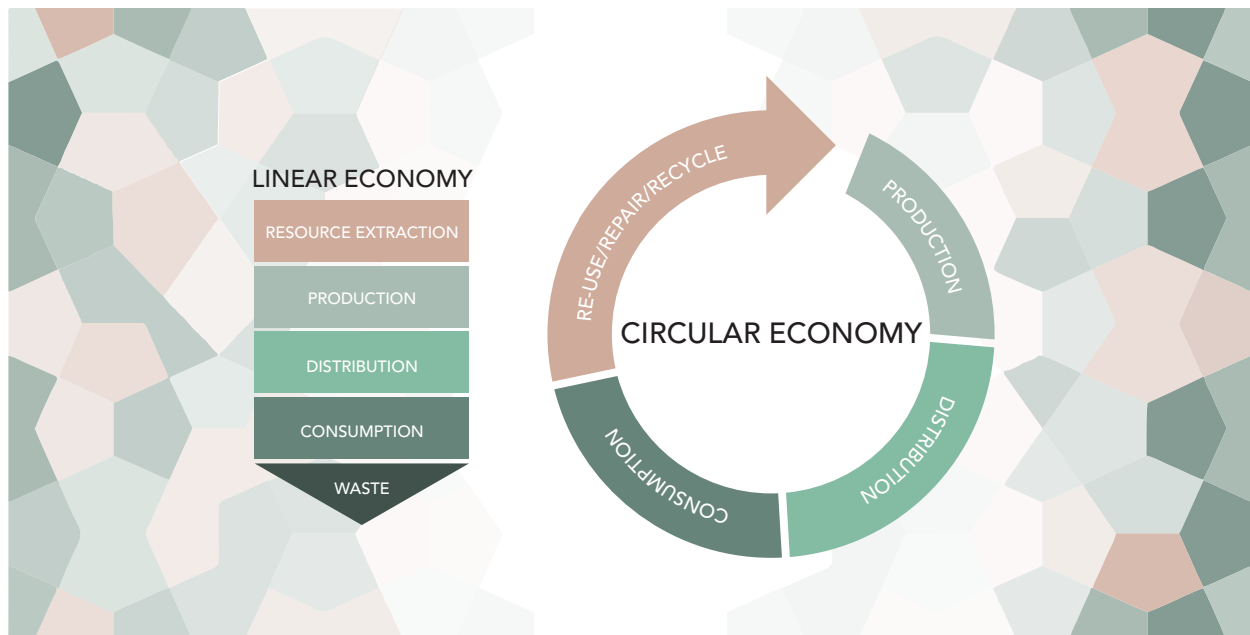
Why Reuse?

The dominant linear economy guides materials through supply chains assuming they have only one intended use before they end up in a landfill. In a circular economy, this situation is avoided by designing waste and pollution out at the front end, systems are developed to keep products and materials in use, and the intent is to regenerate natural systems. Reuse is a key element of a new circular economy for Canada, involving governments, manufacturers, retailers, and consumers. Increasingly, reuse business models are demonstrating economic and environmental opportunities in Canada.

Reuse products, services, and systems are growing across sectors in Canada, from food packaging to textiles to furniture. This is due to business and policy responses to public concern and awareness of the environmental problems associated with plastics and single-use items. Research has highlighted the high amount of energy and resources required to produce single-use products and manage their waste at end of life. As this report demonstrates, the concept of reuse can be applied to different materials and a wide range of producer and consumer products as well.

Report Overview

Reuse in Canada Landscape Scan: Understanding Opportunities to Advance Reuse Systems provides a rich overview of reuse work happening globally and in Canada. The report summarizes general findings on reuse business models and then specifically analyzes opportunities for expanding reuse systems within six sectors in Canada. These sectors include:

Food Packaging	Personal Care Packaging	Textiles (Apparel and Carpet)
Construction	Electronics	Household Goods

The findings identify both general and sector-specific opportunities to advance reuse systems across Canada. As a result, we hope this report will be useful to anyone interested in advancing circular approaches and reuse.

Methodology (or Approach of the Landscape Scan)

For each of the sectors, the report addresses the following issues with respect to the reuse of the product/material:

- Current situation in Canada
- Policies, regulations, programs, and infrastructure that enable or support reuse systems across Canada
- Key initiatives, policies, or infrastructure in other jurisdictions
- Gaps and barriers to advancing reusable systems across Canada

These findings are summarized in Chapter 2 of the report. Subsequent chapters describe other reuse systems that were not in the scope of this scan, key findings from the research during this study, and potential work that could enhance reuse systems in Canada.

General Barriers to Reuse Business Models

Expanding reuse systems will not be without challenges. There are a number of barriers that affect the participants in a reuse system. The broad grouping of participants in a reuse system includes governments, manufacturers/brand owners, retailers, and consumers.

In each of the sectors studied, there are product–specific barriers to expanding reuse business models. For each participant group, there are also barriers that cut across several or all of the products analyzed in this report. While product-specific barriers are discussed in the respective chapters in this report, unique barriers for each group of actors involved in reuse business models are summarized in Table 1.

Table 1: Barriers to Expanding Reuse

Governments	Manufacturers and Brand Owners	Retailers	Consumers
• Incentive misalignment favouring recycling over reuse • Lack of standardized metrics and tools for understanding benefits of reuse	• Lack of reuse targets in waste reduction policies • Changing supply chains/business models • Financial viability • Brand differentiation • Return rates and turn-around times • Lack of regulatory incentives for reuse	• Lack of incentives and cost barriers to establishing reuse systems • Lack of space • Hygiene requirements	• Cleaning infrastructure • Convenience • Affordability • Awareness and education • Overcoming traditional shopping habits • Packaging hygiene

The barriers faced by each participant group are more fully discussed in the report. Table 1 illuminates why the expansion of reuse depends on developing reuse systems that address the unique barriers of each participant in the system. Introducing a reuse product will not guarantee market viability because the system supporting reuse will need to be developed through engagement and collaboration of the stakeholders in the supply chain and communication materials and messaging will need to promote the benefits of reuse.

Opportunities to Advance Reuse Systems

Based on their scan of reuse systems, the authors identified opportunities to advance reuse in specific sectors that would overcome the specific barriers within the sector. Examples of this analysis include the following:

Example 1: Opportunities to incentivize retailers to establish reuse systems for packaging

- Examine reuse models for opportunities to integrate elements into traditional retail chains

- Identify manufacturers of items that are strong candidates for reusable packaging and associations that represent retailers for these items, and work to create further linkages or working groups focused on establishing reusable packaging supply chains

- Identify policies or regulatory tools that might help incentivize the establishment of reverse supply chains

- Generate a cost analysis for regulated entities under extended producer responsibility (EPR) programs comparing recycling packaging to reuse systems over a 5 - 10-year period

- Consider investigating the potential costs of how specific businesses could be reconfigured for storing used packaging for reverse supply chains. Consider credits or tax incentives to reduce costs to business for this reconfiguration

Example 2: Opportunities to address cost barriers of reverse logistics systems

- Investigate areas where reuse systems could be streamlined with collection systems already being developed in support of recycling, for example using QR codes or similar technology

- Investigate how online packaging is or is not covered under EPR programs, and how grocery services and delivery services can be further involved in implementing reverse supply chains

Example 3: Opportunities to encourage reuse over recycling

- Conduct research into how reuse could be recognized under various provincial EPR programs and how regulated businesses could best respond to these potential opportunities

- Investigate EPR systems to find ways to prioritize or incentivize reuse as opposed to recycling

Sector-Specific Considerations to Advance Reuse Systems

The potential opportunities for expanding the reuse system are unique and the findings of this landscape scan are summarized below in Table 2.

The research and full analysis for each sector can be found in the full report.

Table 2: Findings Relevant to Expanding Reuse Systems in Six Canadian Sectors

Sector		Findings
Food Packaging		• The food and beverage sector is responsible for 51.5% of plastic packaging produced globally in 2021. It represents the highest consumption of plastic packaging from all packaging segments by a significant margin. • Reuse systems and products in the food packaging sector can offset the introduction of non-plastic single-use items in response to plastic bans/regulations
Personal Care Packaging		• Personal care and household care products represent the second largest category of plastic packaging globally; 19% of the global market in 2021 • Reuse businesses have grown in this sector, such as refilleries, offering examples for key learnings and scaling
Textiles (Apparel and Carpet)		• In the textile sector, apparel reuse offers a significant business opportunity with 88% of retail executives in the United States finding that resale programs for apparel brands help to drive up revenues • Strengthening Canada's garment repair/remanufacturing/craft sector could help drive small-business employment and encourage reuse
Construction		• Reuse opportunities for this waste stream can improve when construction materials are deconstructed as opposed to demolished • Construction reuse policies align with the need for the growth of design for disassembly to facilitate easier reuse of building materials
Electronics		• Electronic equipment is seldom reused due to regulations and programs that reward recycling and unintentionally discourage the reuse of electronic equipment
Household		• Household goods/appliances are widely reused in Canada through donation or resale despite the lack of policy frameworks to support this process

Findings to Advance Reuse Systems in Canada

Opportunities to advance reuse systems in the six sectors studied in this report could be led by governments, manufacturers/brands, retailers, or organizations in the non-profit sector. Table 3 summarizes specific opportunities and more detail can be found in the full report.

Table 3: Sector-Specific Opportunities to Advance Reuse Systems

Sector	Opportunities
Food Packaging	• Explore reuse opportunities in business-to-business transactions as there are reduced hygiene and branding/marketing concerns compared to business-to-consumer transactions • Investigate how to mandate or incentivize controlled environments such as schools, campuses, and food courts to adopt reusable packaging systems where simplified logistics are possible
Personal Care Packaging	• Explore opportunities to encourage or mandate reusable packaging requirements for certain products in retail spaces • Encourage cleaning products with greater than 90% water product weight to move to bulk tablet form for reusable packaging/sale opportunities without sanitation/freshness concerns
Textiles (Apparel and Carpet)	• Work to encourage further landfill bans for textiles as well as separation requirements for businesses that generate significant quantities of textile waste • Investigate opportunities to include carpet tile removal/reuse requirements in government procurements and/or raise the possibility of reusing carpet tiles from commercial spaces as an element of environmental, social, and governance requirements for private businesses • Identify effective intervention points to assist or encourage the expansion of apparel resale programs • Conduct research that could support EPR programs for textiles
Construction	• Work to advance deconstruction initiatives/requirements, with additional policies, such as dedicated upcycling centres or online marketplaces to ensure deconstructed materials are reused, across municipalities in Canada
Electronics	• Advocate for right-to-repair legislation • Consider advocating for legislation that incentivizes the establishment of repair/reuse organizations and requires or incentivizes businesses to develop more repairable products • Promote the inclusion of the reuse of electronic equipment in EPR programs • Support the introduction of tax credits for donations of serviceable electronic devices
Household	• Analyze tools used in Europe that incentivize repair and require manufacturers to rate their products for their repairability (allowing consumers to make informed decisions)