

# Advancing a Circular Economy in Canada: Tackling the Barriers Sector by Sector to Move the Dial



**GLOBE Advance Workshop**

February 13, 2020 9:30am–12:30pm

Hosted in partnership with:



Environment and  
Climate Change Canada

Environnement et  
Changement climatique Canada

Session Sponsor:



## 1.0 Objectives & Summary Outputs

### 1.1 Session Objectives and Overview

This half-day Circular Economy Advance Session at GLOBE 2020, delivered in collaboration with the Circular Economy Leadership Coalition, brought together over 100 leaders and subject matter experts to assess how to accelerate Canada's circular economy (CE) transition. The session advanced current thinking and insight into the circularity transition at the sectoral level; enabled key stakeholders to identify strategic areas in which to concentrate CE efforts; and helped surface areas for further collaborative exploration and effort. The session was also an important stepping stone to the upcoming World Circular Economy Forum (WCEF), taking place in Toronto in September-October 2020.

#### SESSION OBJECTIVES:

- **Explore** the need for and current state of transition to a CE in specific sectors
- **Identify** key areas of challenge and opportunity as it relates to sector-level transitions to a CE
- **Clarify** areas of overlap and interdependencies between CE-relevant sector challenges and opportunities
- **Distill** the above into a set of key areas for focus to move the dial on a transition to a CE in Canada across multiple sectors

Opening remarks by Canada's Minister of Environment and Climate Change, the Honourable Jonathan Wilkinson, alongside scene-setting presentations from Ernesto Hartikainen from The Finnish Innovation Fund Sitra and David McGinty from the Platform for Accelerating the Circular Economy (PACE), set the stage for small and large group discussions.



David Hughes with the Circular Economy Leadership Coalition and Hilary Geller with Environment and Climate Change Canada provided introductory and closing remarks.

Speakers emphasized the need for cross-sector collaboration, as well as political and private sector leadership, to realize Canada's CE opportunities in step with the global transition. Engaging all sector stakeholders and community groups and identifying Canada's unique contribution to the global transition were also common themes. Speakers conveyed a sense of urgency to act now to define Canada's competitive advantage and path forward, with a focus on better understanding Canada's CE transition in the context of climate change, our natural resource economy, and the opportunities for businesses and communities small and large, rural and urban. The opportunity for the CE to be a unifying and positive framework for reconciling economic and environmental imperatives was a central theme that carried forward into the small group discussions. The session agenda and registration list are provided in [Appendices 1 and 2](#).

## 1.2 Summary Outputs: Sector Conversations

Policy-makers, investors, and corporate executive and operational leaders from Canada's leading sectors and industries discussed and prioritized opportunities and barriers to the circularity transition in eight key sectors of the Canadian economy, with participants self-selecting their sectors of interest as outlined in Table 1 below. Many common themes emerged in the sector conversations and outputs from these discussions are summarized in Section 2.0.

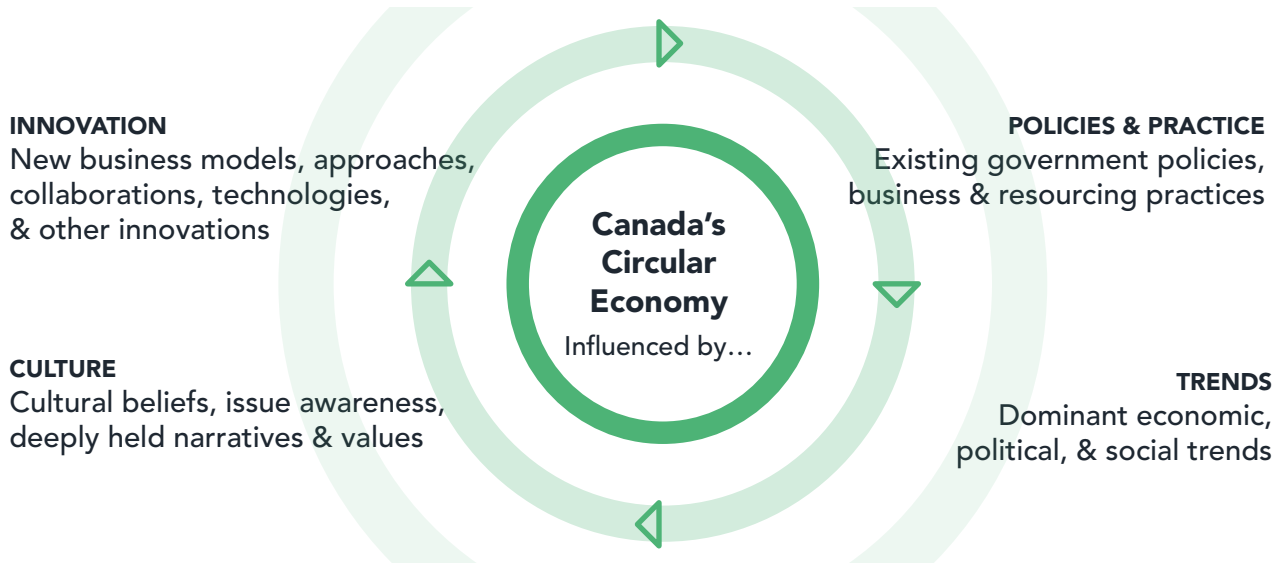
TABLE 1: SECTOR DISCUSSION GROUPS

Sector Area	# of Discussion Groups
Plastics Production & Supply Chains	3
Built Environment	2
Cities	2
Food & Beverage	1
Forestry & Agriculture (Bioeconomy)	1
Oil & Gas	1
Textiles	1
Education	1



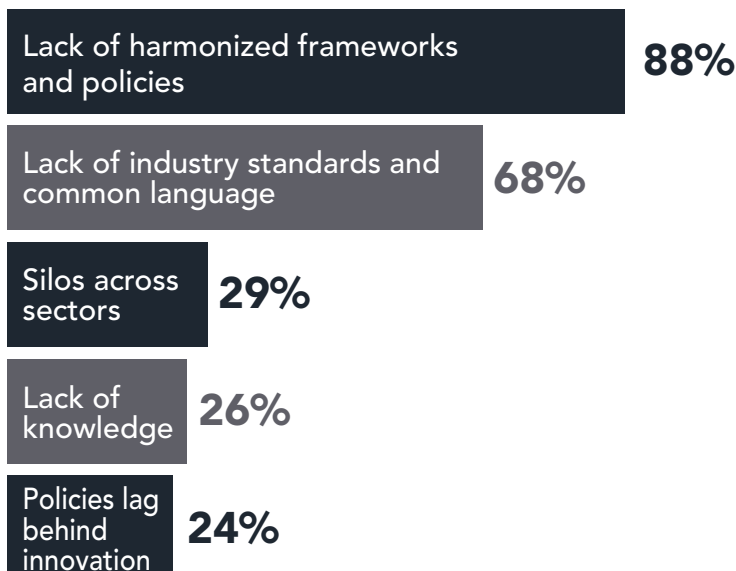
### 1.3 Summary Outputs: Cross-Cutting Systems-Level Barriers and Enablers

Following the sector conversations, participants worked in small groups prioritizing cross-cutting, system-level barriers and enablers, mapping ideas across four thematic areas: innovation, culture, policies and practice, and trends. Discussion questions are listed in [Appendix 3](#).

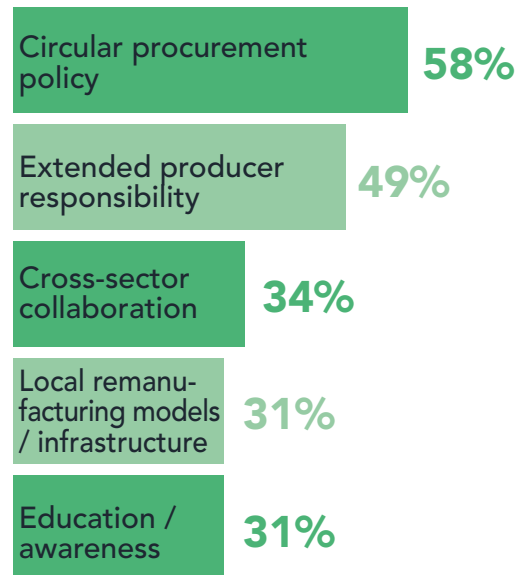


Participant ideas on system-level barriers and opportunities were grouped in real-time by session facilitators and inputted into Slido for voting. From the list of 15 plus ideas in each category, participants voted to identify the top five barriers and enablers that, together, could inform an action agenda to accelerate Canada's transition to a circular economy. These are presented below. The full list of Slido results for each question can be found in [Appendix 4](#).

Top five **barriers** to advancing a circular economy in Canada



Top five **opportunities** for advancing a circular economy in Canada



## 2.0 Sector by Sector Output

Below are detailed, completed templates from each sector discussion group highlighting barriers and opportunities related to the transition toward circularity in respective sectors. Templates were completed in-session by group participants and reflect real-time output.

### Plastics Production and Supply Chains

#### Opportunities

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- Harmonize standards, definitions, and approaches to get efficient/effective systems, close the loop and ensure common understanding (e.g., get government to standardize the classification of trades and uses of recycled and virgin plastics and set incentives)
- Get industry to improve design, see it as brand strength, and reach out to other businesses to spot opportunities
- Ensure knowledge and science informs decision-making at each stage of the life cycle
- Encourage behaviour and cultural shift through engagement and education, so that consumers make different purchasing decisions and vote with their wallets
- Collaborate across supply chains, sectors, governments to create a playbook, and understand key roles to stimulate change

#### Barriers

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- Different policies, standards and approaches exist across the country, resulting in a patchwork of rules and programs
- Insufficient consumer education, confusing labelling and rules, and difficulties in sorting, causes contamination in waste streams
- Technological, logistical and financial industry challenges
- Silos within and across sectors of the economy
- Lack of collaboration due to proprietary information

- Difficulty knowing the path, no clear playbook that provides guidance on recyclability, biodegradable options, or reformulation
- Globally, Canada is not considered a major consumer

### Built Environment

#### Opportunities

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- Expand and scale procurement
- The ability to future proof – i.e., increase operational efficiency and realizing cost savings
- Streamline codes and voluntary standards towards the “new norm” regulatory requirements/incentives requirements/improve costs of supporting circularity
- Strong investment in R&D to increase sustainable materials
- Encourage accountability through better tracking and transparency

#### Barriers

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- Lack of adequate policy signals, jurisdictional harmonization, standard of harmonization for waste, and standards for deconstruction
- No focus on design for disassembly and establishing standards for products
- No regulatory or consistent reporting requirements (i.e., no accountability)
- Lack of reusable/other building materials (e.g., cork, hemp, bamboo, sustainable concrete)
- Multiplicity of actors in the supply chain
- Lack of incentives/responsibilities to influence consumer responsibility

## Circular Cities

### Opportunities

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- Find ways to catalyze action that doesn't depend on everyone having same knowledge and enthusiasm (i.e., include, invite, more and diverse perspectives on what it means to be a circular city)
- Share recycling resources and success stories from business
- Enable cities to be circular-business friendly by overcoming political, economic and social barriers to generate positive returns
- Consider policies at the local level - cities see how people live and what they value, and can set standards and policies in accordance
- Focus on accessible, meaningful and consistent communication

### Barriers

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- Policies and regulations as they exist or don't exist; there is prohibition and/or a lack of incentives to take necessary action
- Lack of municipal utility investment – they are not seen as part of economy
- Lack of education and communication
- Lack of data and metrics
- No cost to waste
- Inertia of current economy prevents/inhibits changes required in consumer behavior
- Capitalist model and wasted interests dictate wrong action

## Food & Beverage

### Opportunities

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- Multi-sector partnership and collaboration on issues of shared concern (and appropriate regulations to support new models)
- Harmonized, and results-based, principles and guidance on circularity – need for regulations and standards around what packaging and labels can be used with links to end of life practices
- 2-way transparency on data and practices

### Barriers

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- Lack of clarity around what materials are in the market and what their end of life is
- Different approaches, standards, practices and capacity across jurisdiction/regions – need for standardized approach
- No clear incentives to change wholesale supply chains

## Textiles

### Opportunities

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- Incentives/policy drivers for the fashion brands; we need industry buy-in to produce the clothes and collaborate
- Innovation and cross-sectoral collaboration
- Consumer education to shift behaviour

### Barrier

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- Cost – more sustainable/ethical materials cost more
- Suppliers/supply chain
- Take back infrastructure

## Forestry & Agriculture (Bioeconomy)

### Opportunities

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- Make full use of the tree, i.e., bioplastics, biochain, biorefinery, biochemical storehouse
- Construction and demolition waste as source of fiber to help offset reduced harvest levels from fires, mountain pine beetle

### Barriers

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- Lack of active forest management – over harvesting in general and of old growth
- Current building codes don't allow/enable re-use of recovered materials
- Lack of appropriate incentives and policies; result is failure to capture all the potential value from the resource and too much unnecessary waste
- Lack of innovation, and attractiveness for entrepreneurs, compared to tech sector

## Oil & Gas

### Opportunities

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- Maximizing value of new bio-based materials and reclaimed materials (environmentally-friendly materials)
- Improving relationships/users at the beginning of the phase
- Combining sector collaboration

### Barriers

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- Design of the extraction process
- Lack of vision governance
- Value chain/economics
- Policy/science/knowledge/efficiency

## Education

### Opportunities

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- Effective marketing and communication - people need to know what circularity looks like
- Limit options to help change behaviours (bring attention to the issues and opportunities)
- Price points also make consumers aware. If it's too expensive, people won't buy it.

### Barriers

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- Laziness – people won't always make the right choice even if they know what it is
- Marketing/education – it is difficult to effectively spread important knowledge
- Lack of strong legislation to control or influence products in the market - lack of bans or other laws to limit what products entering the market



# Appendix 1: Session Descriptor & Agenda

## Session Descriptor

The circular economy offers businesses the opportunity to realize a competitive advantage in a rapidly changing global and domestic market. The World Circular Economy Forum (WCEF) in Toronto (September-October 2020) is an unprecedented opportunity for Canadian businesses, policy-makers, investors, and other stakeholders to engage with circular economy experts and leaders across all industries and sectors from more than 60 countries. In partnership with the Circular Economy Leadership Coalition, the half-day Circular Economy Advance session at GLOBE 2020 will be an important stepping stone to the WCEF and will work to surface vital issues of tension, tackle barriers, and explore opportunities that will come from a transition to a more circular economy in Canada. Through small and large group discussion, augmented by expert resources, participants will surface sector-relevant opportunities and barriers that can be brought forward as potential foundations for industry roadmaps and incorporated into discussions taking place at the WCEF 2020.

## Session Speakers

- **The Honourable Jonathan Wilkinson**, Minister of Environment and Climate Change, Government of Canada
- **David Hughes**, Co-Chair, Circular Economy Leadership Coalition
- **David McGinty**, Global Director, Platform for Accelerating the Circular Economy
- **Ernesto Hartikainen**, Project Director, SITRA
- **Hilary Geller**, Assistant Deputy Minister, Environment and Climate Change, Government of Canada

## Session Facilitators

- **Sarah Brooks**, Senior Associate, The Natural Step Canada
- **Paul Shorthouse**, Senior Director, The Delphi Group

## Objectives

The objectives of this workshop are to

- Explore the need for and current state of transition to a circular economy (CE) in specific sectors
- Identify key areas of challenge and opportunity as relates to sector-level transition to a CE
- Clarify areas of overlap and interdependencies between CE-relevant sector challenges and opportunities
- Distill the above into a set of key areas for focus to move the dial on a transition to a CE in Canada in multiple sectors

In a way that...

- Advances current thinking and insight into the circularity transition at the sectoral level
- Enables key stakeholders to identify strategic areas in which to concentrate early CE efforts
- Helps surface areas for further collaborative exploration and effort



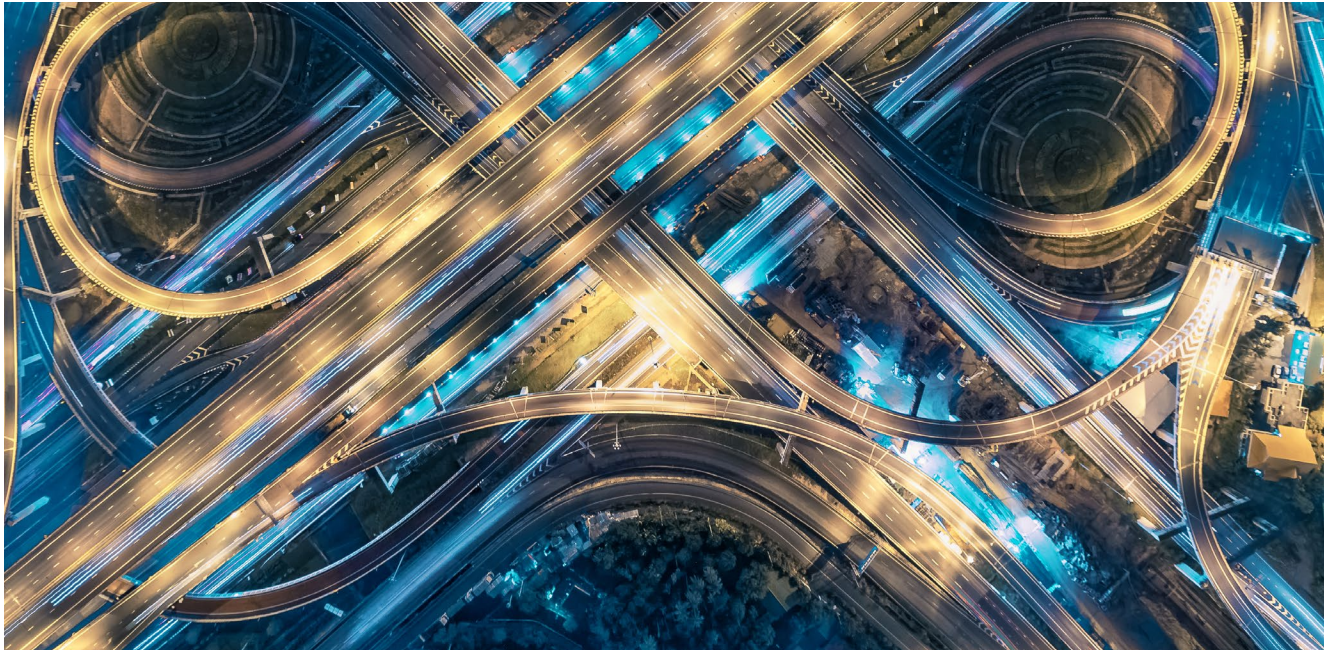
## Agenda

9:30 am	<p><b>Welcome and Introductions</b></p> <ul style="list-style-type: none"> <li>• David Hughes, Co-Chair, Circular Economy Leadership Coalition, and President &amp; CEO, The Natural Step Canada</li> <li>• The Honourable Jonathan Wilkinson, Minister of Environment and Climate Change, Government of Canada</li> </ul> <p><b>'Art of the Possible' Kick-Off Reflections</b></p> <ul style="list-style-type: none"> <li>• David McGinty, Global Director, Platform for Accelerating the Circular Economy (PACE)</li> </ul>
10:15 am	<p><b>Sector Conversations</b></p> <p>Objective: To discuss and identify sector level barriers, enablers, tensions that impact the pace and scale of CE transition</p> <p><b>Proposed Sectors</b></p> <ul style="list-style-type: none"> <li>• Natural Resources – Primary Metals</li> <li>• Bioeconomy – Food &amp; Forestry</li> <li>• Built Environment</li> <li>• Finance</li> <li>• Textiles</li> <li>• Consumer Goods</li> <li>• Plastics Production &amp; Supply Chain</li> <li>• Others</li> </ul>
11:00 am	<p><b>Interdependencies and Cross Pollination</b></p> <p>Objective: To identify cross-cutting barriers and enablers to accelerate Canada's transition to a circular economy.</p> <p><b>'Systems Change' Kick-off Reflections</b></p> <ul style="list-style-type: none"> <li>• Ernesto Hartikainen, Project Director, Sitra</li> </ul>
11:40 am	<p><b>Distillation &amp; Highlights – Where should we focus to move the dial?</b></p> <p>Objective: To discuss, prioritize and vote on top barriers and enablers to accelerate Canada transition to a circular economy.</p>
12:15 pm	<p><b>Closing Reflections &amp; Remarks</b></p> <ul style="list-style-type: none"> <li>• David Hughes, Co-Chair, Circular Economy Leadership Coalition, and President &amp; CEO, The Natural Step Canada</li> <li>• Hilary Geller, Assistant Deputy Minister, Environment and Climate Change Canada</li> </ul>
12:30 pm	<p><b>Session Close</b></p>

## Appendix 2: Registration List

ORGANIZATION	FIRST NAME	LAST NAME	JOB TITLE
7 Generations Capital	Shayna	Rector Blecker	Partnerships Manager
ABB Power & Water	Kevin	Goh	Senior Sales Manager
AECOM Canada Ltd.	Thomas	Honey	Environmental Engineer
Aritzia	Rebecca	Loyo	Senior Director, Sustainability
Array Marketing	Leah	Barker	Safety and Sustainability Specialist
Array Marketing	Dana	Michaud	Senior Manager, Safety & Sustainability
BASF Canada	Isaul	Lopez	Sales and BD Specialist - Compostable Polymers
BCIT	Christina	Oslon	Manager, Ecocity Centre of Excellence
BDC Capital	Jahangir	Bhatti	Director - Cleantech Practice
Bio Industrial Innovation Canada	Sandy	Marshall	Executive Director
BOMA	Hazel	Sutton	Director, Environmental Standards
Business Finland	Seppo	Tossavainen	Senior Advisor Canada in Toronto
Cadillac Fairview	Melissa	Potter	Sustainability Manager
Canada Post	Dilhari	Fernando	General Manager, Policy and Integration
Canadian Tire	Robyn	Collver	SVP, Risk & Regulatory Affairs and Chief Sustainability Officer
CanSustain	Tanis	Ostermann	Owner & Principal
Capital Power	Ahmed	Idriss	Director, Environmental Policy
Carleton University	Jonique	Gardien	Engineering Student
CEP Vancouver	Oliver	Phillip	President
Changing Habits Solutions Inc.	Daniel	Jacob	President & Founder
Chemistry Industry Association of Canada	Shannon	Watt	Senior Director, Environment and Health Policy
City of Calgary (Waste & Recycling Services)	Katherine	Trajan	Leader of Strategic Planning & Policy
CityHive	Sophia	Yang	Envirolab Program Coordinator
Clean Growth Hub	Alison	Beatch	Analyst
Community Foundations of Canada	Dana	Decent	Project Manager, Partnerships
CSA Group	Cathy	Caldarola	Commercial Manager
CSA Group	Priya	Patel	Program Manager, Environment and Climate Change
CSA Group	Ana-Maria	Tomlinson	Manager, Strategic Initiatives

ORGANIZATION	FIRST NAME	LAST NAME	JOB TITLE
Decade Impact	Brianna	Brown	Co-Founder & Director of Operations
Delta Management Group	Sarah	Thorenton	Consultant
Dufferin Research Inc.	Anna	Frank	VP Scientific Research
ECCC	Carolina	Seward	Policy Analyst
EDF Renewables Canada	Bruce	Kolesnik	Senior Manager, Development
Edmonton Global	Perry	Eddy	Business Development Manager
Embassy of France in Canada	Clarisse	Senaya	Economic Attaché
Environment and Climate Change Canada	Leah	Canning	Director, World Circular Economy Forum 2020
Environment and Climate Change Canada	Xavier	Tregan	Manager, WCEF2020
Epic Investment Services	Steven	Pacifico	Director, Sustainability and Innovation
EY	Andrea	De Paoli	Manager
EY	Michael	Morris	Sustainability Manager
Federated Co-operatives Limited	Kimberly	Tang	Director, Sustainability
Finnish Innovation Fund Sitra	Ernesto	Hartikainen	Project Director, Climate Solutions
Freelance (formerly Pond Technologies Inc.)	Philipp	Garber	Small Business Advisor
GEOTAB	Chuck	Van Kempen	Sustainability Leadership & Partner Account Manager
Global Affairs Canada	Paulina	Pisarek	Sustainable Development Officer
Government of Canada	John	Marshall	Section Chief
Greater Toronto Airports Authority	Todd	Ernst	Director Aviation Infrastructure, Energy & Environment
Husky Energy	Aaron	Rognvaldson	Manager, Air Compliance Assurance
Inter Pipeline	Lorraine	Royer	Director, Government & Stakeholder Relations
Ju Tian Cleantech Co., Ltd.	Pei Yu	Shao	Special Assistant
Junxion Strategy	Menaka	Premkumar	Consultant
Metro Vancouver - NZWC	Joanne	Gauci	Senior Policy Advisor
Miller Thomson LLP	Sarah	Hansen	Partner
Ministry of Environment	Sonya	Sundberg	Director, Clean Communities
Natural Fibre Technologies	Jesse	Hahn	VP



ORGANIZATION	FIRST NAME	LAST NAME	JOB TITLE
Natural Resources Canada	Damian	Crawley	Senior Policy Advisor
NISP Canada	Timo	Makinen	Director of Operations
NISP Canada	Tracy	Casavant	Executive Director
NOVA Chemicals	Ken	Faulkner	Director
Oceanwise	Sophie	Merritt	Sustainability Manager
Offsetters	Rita	Steele	Client Engagement Specialist
Ontario Agri-Food Technologies	Tyler	Whale	President
PavCo	Jessy	Uppal	Sustainability Coordinator
Platform for Accelerating the Circular Economy (PACE)	David	McGinty	Global Director
Prince Rupert Port Authority	Jason	Scherr	Manager Environmental Sustainability
PwC Canada	Daniel	O'Brien	Partner - Sustainable Business Solutions
Rodan Energy Solutions Ltd.	Blaire	Stewart	Director, Business Development
Share Reuse Repair Initiative	Alice	Henry	Assistant Coordinator
Shell	Lynda	Beach	Environment Manager - Global Discipline Head

ORGANIZATION	FIRST NAME	LAST NAME	JOB TITLE
Simon Fraser University	Michael	Small	Fellow
Smart Prosperity Institute	Stephanie	Cairns	Director, Cities & Communities
SodaStream Canada	Rena	Nickerson	General Manager
Sodexo Canada	Meaghan	Beck	Manager, Corporate Responsibility
Standards Council of Canada	Adrienne	Yuen	Sector Specialist, Climate Resilience & Sustainability
Stratos	Julie	Pezzack	Vice President, Corporate Sustainability Practice
Sun Luck Electrical Equipment	Franklin	Liao	Liaison
Tarkett	Bianca	Johnny	Architectural sales
The Delphi Group	Ben	Clark	Consultant
The Delphi Group	Shanna	Killen	Consultant
The Delphi Group	Paul	Shorthouse	Senior Director
The Natural Step Canada	David	Hughes	President and CEO
The Natural Step Canada	Sarah	Brooks	Senior Associate
Thompson Rivers University	James	Gordon	Environmental Programs and Research Coordinator
Union Chemical Industries	Chien-Chung	Huang	
University of Manitoba	Darren	Fast	Director, Partnerships & Innovation
Vancouver Economic Commission	Brianna	Bishop	Project Coordinator
Vancouver Economic Commission	Bryan	Buggey	Director
Vecoplan Midwest, LLC	Will	Brennan	Sales Representative
Veterans Affairs Canada	Mandy	Harding	Special Projects Coordinator
Wallonia Foreign Trade and Investment Agency (AWEX)	Yael	Haumont	Area Manager North America
West Coast Reduction Ltd	Jared	Girman	Director of Government Relations and Strategic Initiatives
West Coast Reduction Ltd	Derek	Quan	Head of Redux Services
ZN Advisory Services Inc.	Zain	Nayani	Associate

## Appendix 3: Interdependencies & Cross-Pollination Discussion Questions

### SYSTEM-LEVEL BARRIERS AND ENABLERS

<p><b>CULTURAL</b></p> <p>What are the cultural beliefs, issue awareness, deeply held narratives and values that exist today and could be leveraged to <b>enable or accelerate</b> the transition to circularity across multiple sectors at the same time?</p> <p>What are the cultural beliefs, issue awareness, deeply held narratives and values that exist today and <b>could, or do block</b> the transition to circularity across multiple sectors at the same time?</p>	<p><b>INNOVATION</b></p> <p>What are the new business models, approaches, collaborations, technologies or other innovations that exist today and could be leveraged to <b>enable or accelerate</b> the transition to circularity across multiple sectors at the same time?</p> <p>What are the common barriers that exist across multiple sectors that hinder the development and scaling of niche innovations that demonstrate possibility and effectiveness of a circular approach?</p>
<p><b>PRACTICES AND POLICIES</b></p> <p>What are the existing policies (at all levels of government), business and resourcing practices that exist today that could be leveraged to <b>enable or accelerate</b> the transition to circularity across multiple sectors at the same time?</p> <p>What are the existing policies (at all levels of government), business and resourcing practices that exist today that <b>could, or do block</b> the transition to circularity across multiple sectors at the same time?</p>	<p><b>TRENDS</b></p> <p>What are the dominant economic, political and social trends that could be leveraged to <b>enable or accelerate</b> the transition to circularity across multiple sectors at the same time?</p> <p>What are the dominant economic, political and social trends that <b>could, or do block</b> the transition to circularity across multiple sectors at the same time?</p>

## Appendix 4: Enablers and Barriers – Participant Voting Results

Participants presented their ideas on boards throughout the room and common ideas were grouped in real-time by session facilitators and inputted into Slido for voting. Below is the list of 15+ common themes and ideas that were transposed from the boards and voted on in Slido.

### What are your top five over-arching barriers?

1. **Lack of harmonized framework and policies 88%**
2. **Lack of industry standards - common language 68%**
3. **Policies lag behind innovation 24%**
4. **Silos across sectors 29%**
5. **Information gap - lack of knowledge 26%**
6. Adequate infrastructure 23%
7. Political polarization - lobbying 23%
8. Total cost of ownership 21%
9. Transparency of product ingredients and traceability 21%
10. Inconsistent requirements - incentives (innovation) 21%
11. Insufficient funding 20%
12. Consumer demands 18%
13. Mindsets and complacency (Innovation) 17%
14. Lack of leadership 15%
15. Lack of circular growth - reliance on GDP 14%
16. Proprietary privacy - competition 9%

### What are your top five over-arching enablers/opportunities?

1. **Circular procurement policy 58%**
2. **Extended producer responsibility 49%**
3. **Cross-sector collaboration 34%**
4. **Local remanufacturing models/ infrastructure 31 %**
5. **Education / awareness 31 %**
6. Research investment/ R&D 25%
7. Nature-based / adaptation solutions 22%
8. Social pressures 22%
9. Landfill tax / bans 22%
10. Federal plastics regulation 21%
11. Carbon tax 21%
12. Sharing economy 21%
13. Better data 19%
14. Government funding for innovation challenges 18%
15. AI and technology innovations 16%
16. Private sector investment 15%
17. Will to cooperate / unity 13%
18. Compostable packaging 10%
19. Youth engagement 7%

# Circular Economy Leadership Coalition

[circularconomyleaders.ca](http://circularconomyleaders.ca)

 The Natural Step

**Loblaw  
Companies  
Limited**

  
Unilever



 Smart Prosperity  
Institute

**NEI**

Institut  
**ebbec**  
Institut EDDC - Environment,  
sustainable development  
and the circular economy

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Sustainable Development

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