



Circular Economy Leadership Canada (CELC) was launched in 2018 as a network of corporate leaders, non-profit think tanks, and academic researchers. An initiative of The Natural Step Canada (a national non-profit charity), CELC consists of more than 60 partner organizations and is working to connect Canada's circular economy community, as well as serving as a bridge to similar networks around the world. We provide thought leadership, technical expertise, and collaborative platforms for accelerating systems change and the transition to a low carbon, circular economy in Canada. www.circulareconomyleaders.ca



Circular Innovation Council (CIC) is a national, not-for-profit, membership-based organization with over 40 years of experience delivering programming that educates and empowers Canadians to take action on the circular economy and its environmental, economic and social benefits. In concert with our members and partners, we leverage our experience and expertise to deliver on the broad gains inspired by the circular economy through research, policy, programs, and pilots. Our mandate is to accelerate Canada's transition toward a circular economy by putting concepts into action.

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ABOUT THE CANADIAN CIRCULAR ECONOMY SUMMIT

We saw a need.

Co-hosted by Circular Economy Leadership Canada and Circular Innovation Council, the inaugural <u>Canadian Circular Economy Summit</u> (CCES) was hosted on June 19-20, 2023, at the new Toronto Region Board of Trade event space in downtown Toronto.

The event brought together nearly 400 leaders in-person from across sectors and industries alongside the public sector to collaborate on efforts and activities, advance projects and investments, inform policies, and develop an 'action plan' to accelerate the implementation of the circular economy in support of Canada's climate change, biodiversity, and innovation agendas.



"People often talk about pragmatism, when often what they mean is a lack of courage."

- Ramona Liberoff, Executive Director, PACE

CLICK HERE TO VIEW THE FULL PHOTO GALLERY

CCES Objectives

Given the urgency and Canada's net-zero commitments of and the urgency to meet them environmental and Canada's net-zero targets, the objectives for CCES 2023 focused on:

- Raising the profile of the circular economy and its opportunities to deliver on Canada's current climate change and biodiversity agendas.
- Advancing the circular economy innovation agenda, with a focus on industrial competitiveness and economic development opportunities for Canada as part of the net zero future.
- Providing an opportunity for participants to interact and contribute to a forwardlooking action and advocacy agenda.
- Bringing members and networks together across workstreams and industries through rich and interactive, workshop-style programming to advance action in policy, innovation, procurement, finance, trade, collaboration models, data, and information sharing.



CCES Partners & Sponsors

The CCES was a collaborative effort between CELC, CIC, and the Planning Committee partners, which included 17 leading organizations involved in advancing circular economy efforts across Canada, providing a diversity of perspectives. In addition, 29 event sponsors provided financial and in-kind support. See Appendix A for the full list of Planning Committee members and CCES 2023 sponsors.

"The Canadian Circular Economy Summit truly exceeded my expectations, leaving me feeling energized and motivated to contribute actively to the circular economy movement. I highly recommend this event to anyone passionate about shaping a more sustainable future."

- Mikhael Metauro, Senior Director of Sustainability & Operational Efficiency, Cascades

Delegate Participation.

The wait-listed event brought together delegates from geographic regions across Canada, as well as a diversity of organizations and sectors, including:

- Businesses (corporates, SMEs, start-ups)
- Governments (all levels and jurisdictions) and policy-makers
- Investors and funders
- Innovators (emerging business models, cleantech, researchers)
- Climate leaders
- Industry associations and chambers of commerce
- Economic development agencies
- International trade partners and solution providers



"The quality of expertise and knowledge sharing among speakers and attendees was outstanding."

- Rachel Morier, Director of Sustainability, The Beer Store

In total, 465 delegates registered for the event from 262 organizations, including more than half from the private sector (see Figure 1). Government participation included 8 federal departments and agencies, 3 provincial governments, and 21 local or regional governments. See Appendix B for a full list of organizations.

Academic (Research / Univ / Colleges)	26	10%
Corporates (incl. SMEs and Start-ups)	140	53%
NGOs / Associations	56	21%
Government (Fed / Prov / Local / Crown Corps)	40	15%
TOTAL	262	100%

Figure 1: Number of organizations registered for the Canadian CE Summit 2023 by sector.

"Collaboration has always been a key component to enable circular economy. As it gains more and more traction, I was delighted to see that the organizers of the first Canadian Circular Economy Summit were able to bring all these actors together and collaborate to build a more green and circular economy."

- Mathieu Sasseville, Conseiller Principal, Investissement d'Impact, Fondaction



PROGRAM HIGHLIGHTS

Delegates had the opportunity to participate in **29 sessions** across a variety of interactive formats: from keynotes, to panel discussions and armchair dialogues, workshops and working sessions, World Cafes, investor pitches, government-to-government and business-to-business matchmaking, breakfast and evening networking events, and other transactional programming.

More than 90 speakers from across Canada, with a handful of international subject-matter experts, shared their knowledge and passion for addressing barriers and advancing the opportunities around circularity and innovation. Considered thought leaders and the leading practitioners of our time, speakers challenged, inspired, and explored the connections between circular economy and climate action, encouraging delegates to engage on a deeper level.



"There was something for everyone at the first-ever Canadian Circular Economy Summit. From the seasoned sustainability professional to those just starting to work in, or adjacent to, circularity."

- Andrew Telfer, Director, Circular Opportunity Innovation Launchpad

Below are a number of high-level, key take-aways from the two days of programming at CCES 2023. The more detailed program agenda can be found in Appendix C. In addition, more fulsome session summaries can be found in Appendix D, including links to speaker presentations and session recordings from the Gala Room.

Day 1 Highlights: Laying the Foundation & Showcasing Success

Day 1 shared inspiring stories of entrepreneurs and larger corporates trying to shift linear models to become more circular. Delegates learned about community and placed-based innovation models and how they are driving economic development opportunities and socioeconomy benefits.

Delegates explored the key enablers of CE, including innovation, collaboration, infrastructure, investment, and supportive policy. The highly multidisciplinary nature of the challenges surrounding the circular economy identified a need for collaborative solutions. Technology can also act as an enabler.

Delegates also discussed the importance of having good data and standards in place as foundations to the CE, the importance of human-centric and nature-based design, about the challenges and opportunities around repairability, and about procurement as a driver for CE. Notably, the need for defining standards and developing clear definitions within the circular economy framework was extensively discussed.

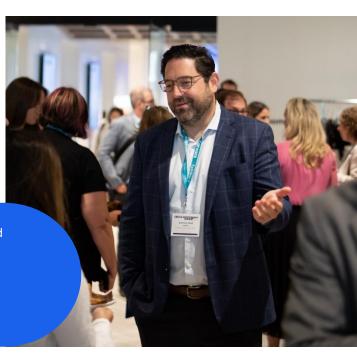
A general consensus echoed across the day's events highlighted the important role circularity should play during the planning phase of many projects, whether they be manufacturing new products, procuring new professional services, city construction, or funding structures for corporates.

"Don't let perfection get in the way of progress."

- Natacha Beauchesne, Economic Development Officer, City of Montreal

"The engaging sessions leveraged noticeable passion from participants and provided direction on much needed next steps for everything from basic definitions to repair, plastic recycling, construction waste and more."

- Michael Leering, Director, Environment & Business Excellence, CSA Group



Day 2 Highlights: Growing Momentum & Scaling Action

Delegates discussed the value of peer pressure, leverage points, and targeted knowledge for collective action as part of engaging panel discussions and workshops.

Day 2 also emphasized the need for proactive government engagement and action, reinforced as part of a government-to-government (G2G) roundtable focused on advancing collaboration on the circular economy in Canada.

"There is nothing more profitable than purpose."

- Yung Wu, CEO, MaRS Discovery District

The important role of government procurement was highlighted. Public procurement is a powerful lever in bringing about systemic circularity. It has a significant impact on new market creation, which is a positive economic driver and can promote quick adaptation by encouraging competition. Turning governments into early adopters was identified as a crucial step, considering the procedural and formal nature of government operations. However, current rigid, risk-based processes governing procurement often restricts circular innovation and action.

Canada also has access to a vast and well-funded research network across Canada, with hundreds of projects. However, the prevailing challenge highlighted was the gap between research and effective implementation. Despite the extensive research efforts, translating research findings into tangible actions and outcomes that research leads to impactful changes in practice is needed.



Sector-specific workshops undertook deeper dives on accelerating a circular economy for plastic packaging, advancing net-zero agri-food systems, circular strategies applied to energy storage and electric vehicle (EV) battery value chains, and circular buildings and materials.

"Rarely is the technology the problem in circularity; it's the politics."

- Ken Webster, Former Head of Innovation, Ellen MacArthur Foundation

Discussions touched upon the importance of aligning with global activities, considerations with respect to the circular economy and trade across North America and internationally, and the potential for Canada to lead as a resource producer in the circular economy, presenting a different perspective compared to resource-constrained Europe. Lastly, the event organizers shared a 10-point Action Plan framework for consideration by delegates and voted on some of the priorities moving forward (see following section).



ACTION PLAN

Establishing a National Circular Economy Action Plan Framework

To achieve a more sustainable, prosperous, and just society, Canada needs a long-term vision for a circular economy, along with an action plan. The transition towards a circular economy in Canada requires clearly identifying key objectives and priorities for the CE transition, tangible

steps necessary to achieve those objectives, and the roles and responsibilities of different actors in implementing those steps.¹

Developing an Action Plan for Canada that outlines near-term priorities (i.e., 2-year time horizon) and focus areas for advancing the circular economy in Canada was a key output from the Canadian Circular Economy Summit.

An initial 10-point Action Plan Framework was developed in the lead up to the CCES, as outlined below.

- 1. Develop a shared roadmap and collaboration platform for a net-zero, climate-smart, circular future
- 2. Align and link CE and climate / biodiversity research. knowledge dissemination, and awareness
- 3. Better understand and integrate performance indicators, reporting tools, and standards

¹ Council of Canadian Academies, 2021. Turning Point, Ottawa (ON). The Expert Panel on the Circular Economy in Canada, Council of Canadian Academies

- 4. Transition markets and promote circular culture in support of climate-smart, circular businesses
- 5. Inspire and invest in place-based innovation to create regenerative local economies and resilient, inclusive communities
- 6. Design programs, policy, regulation, and procurement as innovative transition enablers
- 7. Create low-carbon, circular, waste-to-value opportunities across key sectors and supply chains
- 8. Mobilize and deploy climate-smart, circular funding and financing
- 9. Center Indigenous leadership, engagement, and traditional knowledge
- 10. Strengthen the connection between CE and social benefits, including applying an equity lens

During the CCES, these action items served as context and points of reference throughout the various sessions in order to ensure that discussions remained action-oriented. The above items were iterated on through a number of activities (including roundtable discussions, workshops, and brainstorming activities), leading to the development of additional action points and priorities.

These points were summarized, and specific action items were validated as to their relevance by delegates as part of the Closing Plenary session through a live poll, whereby delegates voted on their top three action items that they believed should be prioritized (See Figure 2).

As a next step, the refined Action Plan Framework and set of key themes is under development, along with a number of underlying actions that will be advanced collectively over the period leading up to the next CCES in 2025.

This Action Plan Framework will be released in the Fall of 2023.

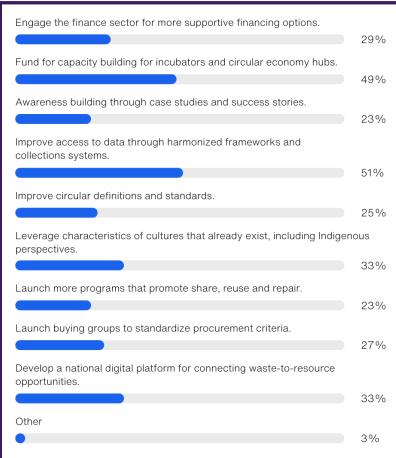


Figure 2: Results of the delegate poll voting on top, near-term action items for advancing a circular economy in Canada.



Appendix A: CCES 2023 Partners & Sponsors

Below is a list of our Planning Committee partners and sponsors for the inaugural Canadian Circular Economy Summit 2023.

CCES 2023 Planning Committee Members

- Canada Plastics Pact
- Centre d'études et de recherches intersectorielles en économie circulaire (CERIEC)
- Circular Cities & Regions Initiative (CCRI)
- Circular Opportunity Innovation Launchpad (COIL)
- City of Toronto
- CSA Group
- Environment & Climate Change Canada
- Ivey Business School

- Memorial University Newfoundland
- National Zero Waste Council
- Réseau de recherche en économie circulaire du Québec (RRECQ)
- RECYC-QUÉBEC
- Share Reuse Repair Initiative
- Smart Prosperity Institute
- The Natural Step Canada
- Toronto & Region Conservation Authority
- Vancouver Economic Commission

CCES 2023 Sponsors

CIRCULAR CHAMPIONS





This project was undertaken in partnership with the Government of Canada.

Ce projet a été réalisé en partenariat avec le gouvernement du Canada.



CIRULAR HEROES

























GREEN FONDS MUNICIPAL MUNICIPAL FUND VERT



CIRCULAR ADVOCATES



















SUPPORTING PARTNERS











CCES 2023

EVENT SUMMARY

Appendix B: Participating Organizations

Below is a list of registered organizations from the Canadian Circular Economy Summit 2023.

- 10C Shared Space / Harvest Impact
- 3F Waste Recovery / Collaskins
- 5REDO
- Achieve Sustainability
- Adaptation Solutions
- AET Group Inc
- Agriculture and Agri-Food Canada
- AgriRecup
- Apex Policy Inc.
- Arup
- Atlantic Canada Opportunities Agency
- Atlantic Healthy Oceans Initiative
- Automotive Recyclers of Canada
- BASF Canada
- Battery Metals Association of Canada
- BNP Paribas Canada
- BOMA Canada
- BoPac
- BoxOne Ventures
- C.R. Plastic Products
- Call2Recvcle
- Canada Infrastructure Bank
- Canada Plastics Pact
- Canadian Beverage Association
- Canadian Climate Institute
- Canadian Home Builders' Association
- Canadian Tire Corporation
- Canoe Procurement Group of Canada
- CanSustain
- CarbiCrete
- Carleton University
- Carton Council of Canada
- Cascades Canada ULC
- · Cascades Recovery+
- Centre de transfert technologique en écologie industrielle

- Centre for Greening Government - Treasury Board Secretariat of Canada
- CERIEC Center for Intersectoral Studies and Research on the Circular Economy
- CESolutions2022 Inc.
- Chemistry Industry Association of Canada
- CIBC Capital Markets
- CIRAIG
- Circle Economy
- Circular Economy Leadership Canada
- Circular Innovation Council
- Circular Materials
- Circular Opportunity Innovation Launchpad (COIL)
- Cité de l'innovation circulaire (CDEVR)
- · City of Belleville
- City of Guelph
- City of Mississauga
- City of Richmond
- City of Sherbrooke
- · City of Toronto
- City of Vancouver
- City of Victoriaville
- Cleanfarms
- Clear Strategy
- Clorox Canada
- Closed Loop Partners
- Cloud For Good
- Commission for Environmental Cooperation (CEC)
- Community Associations for Environmental Sustainability
- Concordia University
- Conestoga College
- Consulate General of the Kingdom of the Netherlands
- Cooperators Group Limited
- Copernicus Educational Products

- Corporation de développement économique de Victoriaville et sa région
- Council of the Great Lakes Region (CGLR)
- · County of Wellington
- Cranfield University
- CSA Group
- Cycle Capital / Circular Innovation Fund
- Dairy Processors
 Association of Canada
- Dalhousie University
- Deloitte
- · Denovia Labs Inc.
- Dillon Consulting
- Dispersa
- District of Squamish
- Éco Entreprises Québec
- Ecojustice
- École de Technologie Supérieure
- EcoWool Canada Inc.
- EFS PLASTICS
- Electra Battery Materials
- EllisDon Corporation
- Emterra Group
- Encorp Pacific (Canada)
- Engineers Canada
- · Entosystem Inc.
- Enviro-Stewards Inc.
- Environment & Climate Change Canada (ECCC)
- Environmental Defence Canada
- Envirotech
- Équiterre
- Ernst & Young
- Evoco Ltd.
- Fashion Revolution Canada
- Fashion Takes Action
- Federation of Canadian Municipalities
- Fero International Inc.
- Fondaction
- Food, Health & Consumer Products of Canada (FHCP)

- FoodMesh
- Friendlier
- Furniture Bank
- Furniture Link
- Gay Lea Foods
- Genecis Bioindustries
- General Mills Inc
- General Motors
- GFL
- Global Affaires Canada
- GLOBE Series
- Goodwill Industries, Ontario Great Lakes
- Government of BC Ministry of Environment and Climate Change Strategy
- Government of Ontario -Ministry of the Environment, Conservation & Parks
- Government of Quebec -Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs
- GreenPaC
- GroBikes Inc.
- Gros Morne Inn
- Groupe AGÉCO
- GS1 Canada
- Guelph-Wellington Smart Cities Office
- H2H Content
- Haley Anderson Consulting
- Halton Region
- Hershey Canada Inc.
- HP
- Husky Technologies
- Hyon
- Ice River Sustainable Solutions
- ICS Courier
- ICTC
- Imperial
- Innovation North
- Innovation, Science & Economic Development (ISED)
- Ipsos
- · Ivey Business School
- JXMP Ventures
- Kal Tire
- Keurig Dr Pepper Canada

- KPMG
- Lafarge Canada
- Lambton College
- · Light House
- · Lithion Technologies
- Liven Proteins
- Loblaw Companies Limited
- Local Government District of Pinawa
- LOOP Mission
- Mantle Developments
- MaRS Discovery District
- Martin Brower Canada
- Materials Efficiency Research Group
- McDonald's Canada
- Memorial University of Newfoundland
- Metal Tech Alley
- Metro Vancouver
- Mining Association of Canada
- MJ Waste Solutions
- Moose Knuckles
- Multy Home
- National Zero Waste Council / Metro Vancouver
- NatuR&D
- Natural Resources Canada (NRCan)
- Nature Bee
- Nature's Path Foods
- Natures Touch Frozen Foods
- Nestlé
- Northern Alberta Institute of Technology (NAIT)
- NoSUP Canada
- NOVA Chemicals
- Novozymes Canada
- Nutrien Ltd.
- Oakdene Hollins
- OCAD University
- OneEarth Living
- Pantonium
- · Pattison Food Group
- Peterborough & the Kawarthas Economic Development
- Pinawa Community
 Development Corporation
- PKED
- PLAEX Building Systems Inc

- Platform for Accelerating Circular Economy (PACE)
- Pomerleau
- Pomerleau
- Public Services & Procurement Canada
- PureSphera
- Purpose Building
- PwC
- Quantum Lifecycle Partners
- R&G
- Rebel Howl Studios
- Recircle Waste Management Solutions Inc.
- Reckitt Benckiser
- Reclay StewardEdge
- RECYC-QUÉBEC
- · Region of Peel
- Regional Municipality of York
- Reimagine Agriculture
- Réseau de recherche en économie circulaire du Québec (RRECQ)
- Resource Productivity and Recovery Authority
- Resource Recycling Systems
- Restaurants Canada
- Retail Council of Canada
- Reverse Logistics and Reuse
- RLG Systems Canada
- RUNWITHIT Synthetics
- Save-On-Foods
- Share Reuse Repair Initiative
- ShareWares
- Sherbrooke Innopole
- Shercom Industries Inc
- Skyline Group of Companies
- Smart Prosperity Institute
- Sobeys
- Sonnevera International Corp. / Recycling Council of Alberta
- Sparx Publishing Group
- Spring Activator
- StackitNow
- Standards Council of Canada
- Statistics Canada
- Still Good Foods
- StrategyMakers Consulting

- Stratzer
- Sustainability Advantage
- Synergy Foundation
- Synthetikos
- TD Bank
- Teck Resources Limited
- TELUS
- Tempo Flexible Packaging
- Tengiva
- The Beer Store
- The City of Calgary
- The Coca-Cola Company
- The Conference Board of Canada
- The Consumer Goods Forum

- The Delphi Group
- The Natural Step Canada
- The Salvation Army Thrift Store National Recycling Organization
- The University of Sheffield
- Toronto and Region Conservation Authority
- Tradle
- Université de Montréal
- Université du Québec à Montréal
- University of British Columbia
- University of Toronto
- University of Waterloo

- University of Windsor
- Unwrapit
- Vancouver Coastal Health
- Vancouver Economic Commission
- Ville de Montréal
- Walmart Canada
- Waste Robotics Inc.
- weRcircular
- Westhaver Partners
- Whirlpool Corporation
- York Region
- York University

Appendix C: Detailed Agenda

DAY 1: Monday, June 19, 2023						
TIMING	FORMAT	торіс				
8:45-10:15	PLENARY	Welcome to Day 1: The Climate and Circular Economy Nexus (Gala Room)				
10:15-10:45	BREAK	NETWORKING BREAK				
10:45-12:00	BREAKOUTS	Showcasing Success: Inspiring the Art of the Possible (Gala Room)	Laying the Foundation: Definitions, Standards and Data Transparency for a Circular Economy (Markham)	The Role of Standards to Advance Repairability in Canada (Kitchener)		
12:00-1:00	BREAK	NETWORKING LUNCH				
1:00-2:30	BREAKOUTS	Scaling Innovation: Place-based & Living Lab Model Best Practices (Gala Room)	Circular Procurement Best Practices (Markham)	Circular Design Principles: From Concept to Practice (Kitchener)		
2:30-3:00	BREAK	NETWORKING BREAK				
3:00-4:00	BREAKOUTS	Ingredients for Success: Canada's Circular Economy Enablers (Gala Room) + Reuse Innovation Showcase (Kitchener)				
4:00-5:30	B2B / B2G	Open Space Marketplace (Gala Room) + Pitch Imperfect (Markham - 4-5pm) + Circulate Ecosystem Networking & Match-making - INVITE ONLY (Kitchener - 5-6pm)				
5:30-8:00		NETWORKING RECEPTION				

DAY 2: Tuesday, June 20, 2023						
TIMING	FORMAT	TOPIC				
7:30-8:45	NETWORKING BREAKFASTS	Advancing the Packaging EPR and Policy Landscape in Canada Breakfast (Kitchener) + Leveraging Canada's Applied Research Community Breakfast (Markham) + Canadian Circular Textiles Consortium (CCTC) Breakfast (Vaughan)				
9:00-9:45	PLENARY	Scaling Circular Economy Action in Canada (Part 1): Welcome to Day 2! (Gala Room)				
9:45-10:30	PLENARY	Scaling Circular Economy Action in Canada (Part 2): Linking to the Global Agenda (Gala Room)				
10:30-11:00	BREAK	NETWORKING BREAK				
11:00-12:15	BREAKOUTS	By the Numbers: Quantifying the Climate Benefits of the Circular Economy (Gala Room)	Repair Workshop - INVITE ONLY (Vaughan)	Addressing th Infrastructure Ga through Innovat Financing (Kitchener)	aps Culture (Markham)	
12:30-2:30	BREAKOUTS	NETWORKING LUNCH + KEYNOTES (Gala Room)	G2G Roundtabl (Kitchener)		Energy Storage & EV Battery Value Chain Workshop (Markham)	
2:30-2:45	BREAK	BREAK				
2:45-4:30	BREAKOUTS	Scaling Regional Collaboration: Seizing Circular Economy Opportunities Beyond Borders (Gala Room)	Advancing Regenerative, Net Zero Agri-food Sector Workshop (Vaughan)	Accelerating Innovation in Plastics and Packaging Workshop (Kitchener)		
4:30-4:45	BREAK	BREAK				
4:45-5:30	PLENARY	Next Steps: Launching the Action Plan (Gala Room)				

Appendix D: Detailed Session Summaries

DAY 1: June 19, 2023

Welcome to Day 1: The Climate & Circular Economy Nexus



Watch the session recording

The Canadian Circular Economy Summit kicked off with a welcome from the event organizers, followed by a special message from CE Summit dignitaries and a Canadian Leadership Panel who set the stage for exploring the nexus between circular economy, innovation, and climate action.

Speakers:

Opening Remarks

- Paul Shorthouse, Managing Director, Circular Economy Leadership Canada (co-host)
- Jo-Anne St. Godard, Executive Director, Circular Innovation Council (co-host)

Welcome Address

- The Honourable Steven Guilbeault, Minister, Environment & Climate Change Canada (ECCC)
- Dianne Saxe, City Councillor, City of Toronto

Keynote

 <u>Matthew Fraser</u>, Head of Research & Development & Lead of the Circularity Gap Reporting Initiative, Circle Economy

Leadership Panel

- Moderator: Mike Wilson, Executive Director, Smart Prosperity Institute (moderator)
- Matthew Fraser, Head of Research & Development & Lead of the Circularity Gap Reporting Initiative, Circle Economy
- Kathleen McLaughlin, EVP & Chief Sustainability Officer, Walmart Inc. & President, Walmart Foundation
- Mike Greidanus, President, BGIS Canada & COO, BGIS North America
- Apala Mukherjee, President, BASF Canada

Key Take-aways:

- Opening Keynote:
 - Matthew Fraser from Circle Economy highlighted some of the major issues with our current path to net-zero and how circular economy strategies will be essential for delivering our net-zero future in areas that include buildings, transportation, energy, and industrial processes.

- Example: The energy transition may require 3 million tonnes of lithium and how, at the current rates of production, it would take us 700 years to produce these levels.
- Circular strategies include: using less (narrowing our focus), using longer (slowing down material throughputs), making clean (regenerating), and using again (cycling more).

• Welcome Address:

- Following a Land Acknowledgement, Councillor Dianne Saxe from the City of Toronto welcomed delegates and provided a summary of how cities can play a leading role in advancing the circular economy through specific examples in the City of Toronto.
- Waste should be seen as a resource opportunity, and a circular economy as the solution for addressing the issues. Without embracing circular economy strategies, it will not be possible for Toronto to meet its climate goals.

• Leadership Panel:

- Moderated by Mike Wilson from the Smart Prosperity Institute, the opening panel focused on important drivers for a circular economy and the nexus with climate action.
- Joining virtually, the Honourable Steven Guilbeault, Minister Environment and Climate Change Canada (ECCC), shared more on Canada's Zero Plastic Waste Agenda, including the importance of collaboration with industry and academia to inform ambitious yet realistic policy, such as the development of incentives and regulation such as targets around recycled content standards and labelling for the recyclability and compostability of packaging.
- Kathleen McLaughlin, EVP and Chief Sustainability Officer at Walmart Inc. discussed how circular economy is applied across Walmart's operations and procurement activities with supply chain partners to encourage more sustainable product offerings in areas such as product design, reuse, energy, transportation, agri-food, packaging, and land use.
- Mike Greidanus, President of BGIS Canada and COO of BGIS North America spoke to the importance of circular strategies for achieving net-zero solutions in the construction sector - particularly for addressing embodied carbon in buildings and materials. For example, BGIS is looking at reuse and decommissioning of buildings rather than tear downs. There is also an opportunity to integrate smart systems and AI to reduce carbon footprints, such as automated energy control systems for buildings.
- Apala Mukherjee, President at BASF Canada, spoke about how important the circular economy is to reducing carbon footprints across industrial processes and activities. For example, recycling / reusing 100,000 tonnes of plastic materials can eliminate 200,000 tonnes of greenhouse gas emissions.

Showcasing Success Stories: Inspiring the Art of the Possible

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Watch the session recording

Delegates were inspired by a diversity of success stories and case studies from six Canadian business and community leaders. The examples showcased best practices from across the country and from various business models at the forefront of leveraging the circular economy to advance Canada's net-zero transition.

Speakers:

- Moderator: Sophie Langlois-Blouin, Vice President of Operations, RECYC-QUÉBEC
- Jason Robinson, CEO, Evoco
- <u>Jessica Regan</u>, CEO, Food Mesh
- Kayli Dale, CEO & Co-Founder, Friendlier
- <u>Lindsay Colley</u>, Associate Vice President, ESG Strategy & Integration, Canadian Tire Corporation
- Janice Saunders, CEO, 3F Waste Recovery & Collaskins

Key Take-aways:

- Design and data are important enablers for the success and monetization of circular solutions and making the business case.
- All success stories exemplified instances where innovation was used to create scalable solutions to existing, long-standing environmental and social issues.
- Educating the consumer and adapting one's messaging is necessary to shift consumer behavior and increase demand.
- Current markets favour linear economies, which presents a barrier to circular businesses and innovations. Market interventions are needed to capture lost revenue through waste streams and favour more sustainable options.
- Making the circular economy's connections to environmental and social prosperity stronger has
 the potential to elicit greater consumer buy-in, widespread industry adoption of circular solutions,
 as well as funding and investment.
- Having appropriate local infrastructure, as well as government regulation, procurement and partnerships are needed to help circular initiatives scale.
- Greater collaboration between businesses, sectors, and industries is necessary for the growth and success of all.

Laying the Foundation: Definitions, Standards & Data Transparency for a Circular Economy

In order for the circular economy to be scaled, a common definition and set of standards needs underpin Canada's ambition, while being supported by improved information and data transparency. This breakout session focused on the importance of establishing a solid foundation for circularity in Canada through harmonized definitions, standards, and enhanced data transparency by showcasing current efforts, needs, and gaps.

Speakers:

- Moderator: Andrew Telfer, Lead, Circular Opportunity Innovation Launchpad (COIL)
- <u>Priya Patel</u>, Program Manager, Environment & Business Excellence, CSA Group
- <u>Matthew Fraser</u>, Head of Research & Development & Lead of the Circularity Gap Reporting Initiative, Circle Economy
- <u>Peter Victor</u>, Professor, Faculty of Environment & Urban Change, York University
- <u>Sinead Murphy</u>, Senior Project Manager, Circular Economy & Innovation, City of Toronto
- Pam Horvatis, Senior Vice President, Industry Relations, GS1 Canada

Key Take-aways:

- Canada lacks a consistent definition for circular economy or recycling, although standards are being developed by Canadian expert groups and organizations such as the CSA Group.
- Work is underway to develop an international ISO/TC 323 standard for circular economy.
- Once consistency is developed, local industry can be harmonized around definitions and standards.
- The <u>Turning Point Report</u> for Canada provides a good foundation for defining the circular economy.
- Data is scarce, lacks transparency, and is challenging to collect, making it difficult to determine and measure how circular the economy is today (although it can be done).
- No massive new breakthroughs are required; the scaling of existing knowhow around data collection and measurement practices is enough.
- Canada lacks a comprehensive materials flow database and needs to develop one.
- There is a need for greater collaboration with all stakeholders in this space to identify and investigate data gaps and opportunities.
- It is possible to increase Canada's circularity to 20% by following direction from EU27 (insight from Turning Point Report modeling).

The Role of Standards to Advance Repairability in Canada

Supporting and expanding repair in the market is critical to meeting circular economy objectives including resource preservation, biodiversity protection, climate change mitigation and waste reduction. This session included input from a cross section of stakeholders at the forefront of repair and its protection and expansion in the market. Delegates had the opportunity to discuss standards and their role in protecting and advancing repairability, focusing on two specific product categories (consumer electronics and home appliances).

Speakers:

- Moderator: Jo-Anne St. Godard, Executive Director, Circular Innovation Council
- Michael Leering, Director, Environment & Business Excellence, CSA Group
- <u>Jean-Paul Ventère</u>, Lead Architect of the French Repairability Index
- Warrington Ellacott, Senior Manager, Government Relations, Whirlpool Corporation
- <u>Amélie Côté</u>, Source Reduction Analyst, Équiterre

Key Take-aways:

- Promoting repair and refurbishment services fosters the growth of a skilled workforce in repair industries. This not only creates employment opportunities but also supports local economies
- Repairability empowers consumers to take control of their products' lifespan, consumers are critical in demanding and advancing repair activities in the marketplace
- We can use standards to incent innovation and they can be used as a basis for enforcement and accountability
- Standards can define clear repairability requirements for products, such as electronic devices or appliances, ensuring that manufacturers design products with repairability in mind.
- Standards can mandate manufacturers to provide comprehensive repair documentation and information, making it easier for independent repair technicians to access essential information
- Standards can support the necessary credentials to repair certain products where safety is a concern.
- Standards can support consumers and repair technicians' right to access software and firmware required for product repairs
- Standards can be used or support labeling requirements that highlight the repairability score or
 ease of repair for different products, assisting consumers in making informed choices about their
 purchases.
- Emerging training and certification programs for repair technicians, ensuring that they have the necessary skills and expertise to handle repairs safely and efficiently.

Scaling Innovation: Community-based & Living Lab Model Best Practices

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Watch the session recording

This session explored models for community-driven, place-based circular economy innovation and cluster development, including a showcase of Canada's leading accelerators, living lab initiatives, and regional collaborations that could be scaled and replicated across the country.

Speakers:

- Moderator: Daniel Normandin, Co-Founder & Director, CERIEC & Executive Director, RRECQ
- <u>Jacomien Van Tonder</u>, Director, Metal Tech Alley, Lower Columbia Initiatives Corporation (LCIC)
- <u>David Messer</u>, Executive Director, Smart Cities Office, City of Guelph & Circular Opportunity Innovation Launchpad (COIL)
- Chantal Rossignol, Coordinator, Circular Economy Living Labs, CERIEC
- <u>Shegufta Shetranjiwalla-Merchant</u>, Professor, Memorial University of Newfoundland (MUN)
- <u>Christa Clay</u>, Manager, Economic Transformation & Circular Economy, Vancouver Economic Commission (VEC)

Key Take-aways:

- Examples included cluster, living lab, and research initiatives from British Columbia (<u>Metal Tech Alley</u> and <u>Green Industrial Innovation District</u>), Ontario (<u>Our Food Future</u> / <u>COIL</u>), Quebec (<u>CERIEC's living lab on construction</u>), and Newfoundland and Labrador (Indigenous community design and reprocessing of electronics, appliances, and renewable energy products).
- Indigenous and community-led projects and engagement are critical, with a focus on action instead of theory.
- Cooperation is the key including with respect to government support, cross-sector collaboration, leveraging industry associations, and research that engages with industry and community stakeholders.
- Developing flexible frameworks can help enhance innovation and success, but solutions must be
 place-based and reflect their unique settings. Flexibility is important to allow for creative solutions
 to come forward.
- Opportunities exist to take learnings from pilots and projects in one sector and apply them to others (e.g., food waste pilots in Guelph informing construction waste pilots).
- Having good information and data to inform strategic priorities is critical (e.g., undertaking ecosystem mapping of supply and demand, material flow analyses, etc.).
- Doing 'more' projects with a broader scope can bring more benefits through ecosystem synergies that would not be realized otherwise (think big rather than narrow).
- Funding challenges present issues for launching community projects and living lab models.
- Impact is important with funders so important to demonstrate environmental, economic, and social benefits through measurable criteria such as GHG emission reductions and job creation.

Public Procurement: The Secret Weapon to a Low Carbon, Circular Economy

Unsustainable production and consumption is the root cause of climate change. The carbon emissions associated with producing and consuming goods and services, also known as embodied carbon, represent 45% of the total carbon emissions. Canada will only reach its climate change targets by addressing them. Circular procurement is an effective tool to tackle the embodied emissions derived from consuming goods and services, and governments across Canada that have made commitments to address climate change have the buying power to leverage that tool. In this session, delegates discussed public procurement's critical but untapped role in investing in low-carbon, circular goods and the companies that offer them. As part of this panel, panelists discussed policies, pilot projects, and business models.

Speakers:

- <u>Jane Keenan</u>, Director, Centre for Greening Government, Treasury Board Secretariat of Canada
- <u>Julian Cleary</u>, Senior Policy Analyst and Manager, Low Carbon Procurement Project Public Services and Procurement Canada
- Grant Hogg, Executive Director, Environment and Climate Change Canada

Discussants:

- Frances Edmonds, Head of Sustainable Impact, hp
- Rob Cumming, Head, Sustainability & Public Affairs, Lafarge Canada
- Andy Delisi, VP Sales, Envirotech
- Bob Willard, Founder and Chief Sustainability Champion, Sustainability Advantage

Key Take-aways:

- Public procurement that incorporates circular economy requirements or prioritizes CE business models sends a signal to the market that they will be 'scored' on CE in some way; this will incentivize change
- Larger organizations can advance circularity using the Net Zero Challenge, which will help to push smaller companies along.
- The market needs open / better access to methodologies and calculators including for Scope 3 emissions.
- Encouraging innovation through procurement by seeking out new technologies and solutions that promote low carbon and circular practices, such as product-as-a-service models.
- Invest in training and capacity building programs for procurement professionals and suppliers to enhance their understanding of low carbon and circular economy principles and implementation strategies.
- Strong need for data-driven tracking and accountability.

Circular Design Principles: From Concept to Practice

In this session, a variety of leaders from across industries hosted a discussion on some of the key considerations needed to support innovative design in alignment with circular principles and practices.

Speakers:

- Moderator: Sarah Tranum, Associate Professor, Social Innovation Design, Ontario College of Art
 Design (OCAD) University
- Rosemary Cooper, Project Director, Share Reuse Repair Initiative
- Anthony Wolf, Vice President, Product Design & Innovation, Canadian Tire Corporation
- Nadine Gudz, Practice Lead, Strategy, NatuR&D
- Charles Gillott, Research Associate, University of Sheffield & Toronto Metropolitan University

Key Take-aways:

- Canadian Tire Corporation, a leading retailer in Canada, is considering the sustainability, design, procurement, lifespan, and next use attributes of its products, along with its ability to influence its customers choices.
- The <u>Stuff in Flux 2 Playbook</u>, developed by the Share Reuse Repair Initiative, identifies four global opportunities for "stuff" with mass market potential: Flowing Stuff, Stuff Connected to Nature, Useful stuff, Joyful stuff.
- Companies and marketers can use the four innovation territories when designing their products, including when targeting Gen Z and Millennials.
- The "Useful stuff" category is an emerging market with customers that want useful products made from quality materials that have longer lifespans and can be repaired more easily.
- Designing for circularity requires a change of thinking and asking tough questions, which can be uncomfortable, but will drive innovation.
- Many companies are using biomimicry principles in the design of their products to make them
 more circular. This includes using renewable materials and having systems in place to restore
 products to their base materials.
- There is no net-zero without a circular economy which is what is stimulating sustainable innovation and design within the construction and built environment sectors.
- People have a tendency to desire new and shiny buildings, but extending the life of existing buildings is the best approach to a circular built environment.
- <u>Regenerate Tool</u> is a circular building design tool for those involved in the design and construction of buildings. The tool has been developed using a framework that defines 4 categories of circularity criteria:
 - o (1) Design for adaptability
 - (2) Design for deconstruction (e.g., designing each individual component of the building for reuse)

- (3) Design for reusability (e.g., consider circular materials; avoid secondary finishes; don't use toxic products, etc)
- (4) Design for resource efficiency (e.g., specify the use of reused materials in your design or construction)
- Key opportunities associated with circular design: (i) leveraging recognizable / reputable
 certifications; (ii) utilizing carbon as a resource; (iii) considering "take-back" and reuse markets;
 (iv) leveraging existing tools, such as the Regenerate Tool for those involved in the design and
 construction of buildings.

Ingredients for Success: Canada's Circular Economy Enablers



Watch the session recording

The circular economy requires a combination of enabling factors to achieve an accelerated transition at scale: from effective partnerships, to investments in infrastructure, to system-wide innovation, and supportive policy. This panel discussion went deeper on the key drivers and enablers of the circular economy in Canada, and how these essential ingredients must work together for success.

Speakers:

- Moderator: Barbara Swartzentruber, Senior Associate, Smart Prosperity Institute & The Natural Step Canada
- Natacha Beauchesne, Economic Development Officer, City of Montreal
- Benoit Forcier, Senior Partner, Circular Innovation Fund, Cycle Capital
- Georgia Lavender, Director of Operations, Project Zero, Synergy Foundation
- Erik Grisé, Director, Circular Economy Development, Cascades

Key Take-aways:

- Collaboration with unusual partners is key. Impact can be greater by leveraging innovative, collaboration approaches.
- One example is how L'Oréal brought funding to Montreal-based Cycle Capital, who then
 expanded the scope and reach by partnering with Europe-based Demeter to launch the new \$165
 million <u>Circular Innovation Fund</u> that supports transformative innovation in the circular economy.
- Collaboration in support of circular economy businesses has also resulted in more resilient supply chains, as was demonstrated by Montreal during the COVID-19 pandemic.
- Policy developed through collaboration with industry and multiple levels of government will result
 in greater success and buy-in from a broad set of stakeholders, as was demonstrated by the City
 of Montreal and the recent launch of its <u>circular economy roadmap</u>, which is also helping to
 create alignment amongst stakeholders.
- The City of Montreal's circular economy roadmap includes a 3-part strategy: develop and implement the roadmap; support the ecosystem in its transition; and ensure an adequate level of funding for circular projects.

- Facilitating business-to-business interactions is critical for identifying waste as resource opportunities across sectors - creating greater industrial symbioses and stimulating innovation.
- Having strong definitions and standards (e.g., what do we mean by terms such as circular, recyclable, compostable, reusable etc.) are also critical to aligning businesses and accelerating investments in product innovation and infrastructure.
- Efforts to break down silos and work together will be essential to building the circular economy in Canada.
- Knowledge and resource sharing are critically important. There are many businesses that want to change but don't know where to start.
- Specific near-term actions identified for advancing the circularity economy in Canada include:
 - o Developing and adopting a clear strategic framework or roadmap.
 - Designing funding, incentives and policy to equalize or tilt the playing field toward circular economy efforts.
 - Leveraging smart policy / regulation (e.g., EPR, procurement, etc.) and collaboration to drive innovation and investment.
 - Providing programs (e.g., incubators / accelerators) and space for innovators and entrepreneurs to come together to experiment and scale.
 - Building the required knowledge, capacity, and workforce skills.

Scaling Reuse: Addressing Common Barriers

Reusing products of all types plays a crucial role in advancing the circular economy by extending the lifespan of resources, reducing energy consumption, and minimizing environmental impact. In addition to environmental benefits, the reuse of products has economic and social advantages. To fully realize the potential of product reuse and advance the circular economy, collaborative efforts are required from various stakeholders. Through this session attendees were able to engage with leaders activating reuse in businesses, communities and municipalities. Common barriers and opportunities, best practices, and successful case studies from various sectors were shared.

Speakers:

- Moderator: Dany Drouin, Director General, Environment and Climate Change Canada
- Annette Synowiec, Manager of Business Operations and Change Initiatives, Solid Waste Management Services Division
- Martin Hrobsky, Vice President, IPSOS
- Rachel Morier, Director of Sustainability, The Beer Store
- <u>Vanessa Timmer</u>, Executive Director & Co-Founder, One Earth Living
- Rosemary Cooper, Director, Share Reuse Repair Initiative

Key Take-aways:

- Reuse requires a significant shift in consumer behavior. We need to create an improved culture of circularity/reuse/repair, normalizing this will support and increase reuse activities in both local communities and within broader marketplaces.
- Some individuals may associate reused products with lower quality or consider them less desirable compared to new items.
- There are challenges in using public policy to incentivise reuse, specifically within the food service / food packaging sector because of the perceived risk of food contamination
- Reuse is an important procurement tool that needs to be encouraged alongside repair
- The absence of centralized collection points for reuse/ repair activities may discourage individuals from participating in reuse initiatives.
- The economics of reuse can often be challenging. In some cases, the cost of repairing or refurbishing a product may exceed the price of buying new, especially if reuse or repair markets are not readily available.
- Successful reuse models don't necessarily need to be scaled but can be implemented and modified for use in a variety of communities accounting for regional variations.
- Collaboration and coordination among stakeholders along the supply chain are essential for successful product reuse.

DAY 2 - June 20, 2023

Scaling Circular Economy Action in Canada (Part 1): Welcome to Day 2

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Watch the session recording

Day 2 of the Canadian Circular Economy Summit began with a brief recap of highlights from Day 1 and an interactive activity for delegates. The rest of this plenary session consisted of an armchair discussion that explored procurement as a driver of the circular economy.

Speakers:

Opening Remarks

- Paul Shorthouse, Managing Director, Circular Economy Leadership Canada
- Jo-Anne St. Godard, Executive Director, Circular Innovation Council

Welcome Address

The Honourable Mona Fortier, Minister Treasury Board of Canada Secretariat

Panel

- Moderator: Jo-Anne St. Godard
- Yung Wu, CEO & Chair, MaRS Discovery District & Toronto Region Board of Trade
- Nick Xenos, Executive Director, Treasury Board of Canada Secretariat

Key Take-aways:

- Government procurement is key for leadership and to support innovation, but entrepreneurs
 struggle to navigate these processes. Many solutions to environmental issues already exist, but
 these must be funded and adopted. We need to find a way to activate government to move
 quickly with a high sense of urgency.
- Government procurement should be designed to support low-carbon innovators. RFPs should spell out problems instead of prescribing the solution by focusing on outcomes as opposed to requirements.
- Education and collaboration is important for the success of procurement efforts. A marketplace could present a solution to connecting disparate players and providing a knowledge base.
- Harmonization of certifications is key to making procurement processes more efficient and effective.
- Transformative solutions are needed over traditional solutions, although they must add value
 through demonstrating scalability. We need to move from risk reduction/lowest cost to portfolio of
 higher risk, as these solutions have the greatest potential to deliver the magnitude of change we
 need.

- The buying power of the public sector should be leveraged to escalate the market transition to a curricular economy through increased innovation and adoption of circular products and processes. This will also create the critical mass needed to spur action in other sectors.
- We need to look beyond our borders to learn from other countries, but focus our procurement efforts on made-in-Canada solutions.
- There is a need to outline and reevaluate metrics for success, as well as identifying the areas of
 greatest potential impact from a circular economy.
- There is nothing more profitable than purpose

Scaling Circular Economy Action in Canada (Part 2): Linking to the Global Agenda

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Watch the session recording

During Part 2 of the opening plenary, a panel discussion built on existing momentum to outline a framework for scaling action, including linking to the global agenda and setting the foundation for a Canadian Action Plan coming out of the Circular Economy Summit.

Speakers:

- *Moderator:* **Jury Gualandris**, Associate Professor of Operations & Sustainability, Ivey Business School, and Director, Centre for Building Sustainable Value
- Ramona Liberoff, CEO, Platform for Accelerating Circular Economy (PACE)
- Ignacio Gavilan, Director, Sustainability, The Consumer Goods Forum
- Emmanuel Raufflet, Professor of Management, HEC Montréal

Key Take-aways:

- Belief and value systems shape our decision-making processes and actions. What are some of the principles that characterize these belief systems, and how can we shift them in order to enable greater circularity?
- Circularity is about greater connectedness. Collaboration between public and private sectors is the lever to prompt private sector action.
- Circularity is a social change process: Start where this is will, and start where there is potential for leverage.
- If we do not have a fair and just society, we would have missed the target. Social innovation must support the kind of societal change we need.
- There many success stories around the world that we can (and should) learn from (i.e. Slovenia: Taking the governance system out of the political system)
- Peer pressure is key; but doesn't provide direction. The right goals need to be set; you can never settle for the lowest common denominator.

- There is power in education, but we cannot rely on knowledge to translate into action. We need to get the knowledge granular enough to prescribe specific action to specific actors. People often talk about pragmatism, when often what they mean is a lack of courage.
- There is no one single mechanism; we need a whole orchestra of solutions.
- Scalability is not the end-all be-all; we need a diversity of solutions to address localized issues. Look at the local cultural grounds and what they can produce.
- We are addicted to growth, which needs to be reconsidered. We need to rethink how we evaluate and measure success and performance, and we need new metrics to do so.

Advancing Opportunities for Repair in Canada Foresight Workshop

The opportunity that repairability presents—to extend product life, facilitate reuse, and prevent usable goods and their parts from being lost to disposal—is gathering significant attention in Canada as it aims to transition to a circular economy.

Although the benefits that product repairability contributes to the environment and economy in Canada are significant, there are barriers to broader participation in repair activities. The solutions to these barriers need to be carefully understood to ensure that the "right to repair" is implemented effectively.

Discussion around repairability trends will be important to understanding how Canada can encourage repairability and identify effective solutions to implement the "right to repair" for appliances, electronics, and other durable goods. The intent of this invite-only "Foresight" style workshop, co-hosted with CSA Group, was to identify repairability trends and themes that Canada could adopt in the near and far future, and to explore the role of standards and policy frameworks needed to become a leader in advancing repairability.

Key Take-aways:

- Delegates identified eight trends that were deemed to have high impact and low preparedness:
 - Extended Stewardship
 - o Circularity
 - Over the Air Repair
 - Durable Goods
 - Jailbreaking Frontiers
 - Passport to Repair
 - Biomimicry
 - Reprint to Repair
- Safety and security concerns surrounding repair emerged as key considerations.
- Harmonizing repair efforts with the United States is crucial to ensure consistent qualification of product impacts across the North American markets. Aligning with US certification requirements within Canada will be instrumental in this regard.
- Consumers exhibit emotional connections to their products, which fosters a willingness and incentive to engage in repair activities, thus extending the life of the product.

- Strengthening consumer education and awareness about repair in general is essential to overcome existing barriers.
- Exploring how well-established frameworks or concepts (such as Extended Producer Responsibility or recycling systems) can be leveraged to support repair efforts emerged as a critical question.

By the Numbers: Quantifying the Climate Benefits of the Circular Economy

The climate benefit potential of the circular economy is significant but can't be taken for granted. A rapid fire series of presentations (7 X 7) showcased leading insights from research. Practical examples from organizations and businesses in Canada on quantifying the climate benefits of circular strategies and climate-smart business models were presented, including in areas such as urban metabolism, construction and real estate, food processing, rubber (i.e., tires), iron and steel production, and circular procurement.



Watch the session recording

Speakers:

- Moderator: Calvin Trottier-Chi, Research Associate at the Canadian Climate Institute
- <u>Jury Gualandris</u>, Associate Professor of Operations & Sustainability, Ivey Business School & Director, Centre for Building Sustainable Value
- Ryan Zizzo, Founder & CEO, Mantle Developments
- Darryl Moore, Director, Sustainability, Kaltire
- <u>François Saunier</u>, Deputy Director, International Reference Center for Life Cycle Assessment and Sustainable Transition (CIRAIG)
- Li-Anne Sayegh, Senior Engineer & Daeun Yoon, Energy & Sustainability Consultant, Arup
- Thomas Elliot, Postdoctoral Fellow, Université du Québec
- Julian Cleary, Team Manager, Public Services & Procurement Canada (PSPC)

Key Take-aways:

- Procurement processes are the tools to properly quantify climate benefits.
- We need to make 'whole of life' carbon measurements which is inclusive of operational carbon and embodied carbon.
- Improve carbon emission baselines from generic emission factors from input-output models previously used.
- We need better modeling to identify low carbon products vs. higher carbon alternatives
- The use of digital tools and artificial intelligence to enhance data analytics and modeling is emerging as a way to quantify climate initiatives.

- Considerations should be made to align quantitative data with qualitative ways to capture broader dimensions of systems health and value already in the system.
- There is an opportunity to compare data on the current linear economy practices to establish a baseline against which the circular economy improvements can be measured accurately.
- There is the potential for carbon offsetting through circular initiatives by integrating circular economy practices into existing carbon accounting methodologies.

Addressing Circular Infrastructure Gaps through Innovative Financing

This breakout session explored infrastructure needs as it relates to advancing a more circular economy in Canada, as well as the investment and innovative financing required to close critical gaps - including in areas such as recycling, wastewater, and reverse logistics.

Speakers:

- Meg O'Shea, Senior Manager, Economic Transformation, Vancouver Economic Commission
- <u>Catherine Loriot</u>, Lead, Waste & Water Sector Development, Green Municipal Fund, Federation
 of Canadian Municipalities (FCM)
- Allen Langdon, CEO, Circular Materials
- Alex Ryan, Director, Investments, Canada Infrastructure Bank
- Kristin Taylor, Director & Organization Lead, Closed Loop Partners

Key Take-aways:

- There is a need for a framework for eligibility, comparison, and indicators to report on performance in order to quantify the value of investments in circular infrastructure.
- Currently, most projects are managed provincially; however, there is a need for national administration of these projects to ensure alignment, compliance, and efficiency.
- The nationalization of EPR provides an opportunity to optimize the current recycling system, which could result in efficiency gains to municipalities.
- Greater funding for feasibility studies, pilot projects, capital projects related to the circular
 economy is needed to grow and scale circular projects and businesses. There are currently
 investment gaps, primarily due to risk, that need to be addressed.
- Developing a traceability system is necessary for effective recycling and waste management systems.
- Capacity issues pose a barrier to effective waste management. Municipalities face 'waste burnout' and need a framework for change.
- Collaborations with other organizations to build investment, infrastructure development, and technical options for circular solutions is necessary.
- Bundling disaggregated projects as a method of securing investment presents an opportunity to increase funding allocation to circular initiatives.

Mainstreaming Circular Culture: The Need and the Opportunity

This breakout session explored the need and opportunity for mainstreaming circular culture through sharing a range of programs and pilots focused on embedding circular opportunities into our institutions, developing accessible language, marketing to motivate circular behaviours, and ensuring affordability, accessibility and fair livelihoods.

Studies from British Columbia, Québec and in Guelph-Wellington were presented to share the latest insights on what motivates people to embrace circular practices and how we can build a circular culture across our businesses, cities, governments, schools, communities, institutions, and in all our circular economy efforts.

Speakers:

- Vanessa Timmer, Executive Director, One Earth Living
- Dagmar Timmer, Managing Director, Strategic Initiatives, One Earth Living
- Rosemary Cooper, Project Director, Share Reuse Repair Initiative
- Sophie Langlois-Blouin, Vice President of Operations, Recyc-Québec
- David Messer, Executive Director, Smart Cities Office, City of Guelph

Key Take-aways:

- Cultivating a circular culture is a key ingredient in advancing a circular economy and society. Our supply of circular goods and services needs to be met with a vibrant and active demand.
- More research is needed on how we make circular habits, practices, and patterns of use / reuse the norm.
- Consumers respond well to messages that relate to specific issues. Large scale change happens
 when these specific stories generate demand for change, which then prompt policy development,
 reactionary innovation and corporate involvement.
- Marketing/communications tools to shift a linear culture to a circular culture must target everyone.
 Tailored messaging can attract a wider audience based on shared motivations across social, political and economic standpoints, and using simple language, peer pressure and social norms can increase uptake.
- A throw-away culture was artificially created in the 1950's by marketing campaigns. We have the ability to rewrite the narrative, as what was done can be undone.
- There is a need for infrastructure to enable the "easy default" mode of the circular economy (by
 making circular option the easiest or most convenient option), so as to not rely on individual
 responsibility as the primary motivator of change.

Government-to-Government Roundtable: Advancing Collaboration on the Circular Economy in Canada

This closed-door working session was designed to bring together all levels of government in Canada to discuss considerations for developing a national, coordinated approach to advancing a circular economy in Canada, including shared policy opportunities and challenges for advancing the connection between circular economy initiatives and climate action.

Approximately 60 delegates participated in the G2G Roundtable, representing local, provincial and federal levels of government from across Canada, including:

- · Eight federal ministries or departments;
- Three provincial governments (BC, Ontario and Québec); and
- More than twenty local and regional governments.

The Roundtable was facilitated by The Delphi Group. Short presentations by Environment and Climate Change Canada and Circular Economy Leadership Canada were delivered at the outset of the session to set the context. The presentations were followed by facilitated breakout group discussions, which were guided by questions around themes of "Governance Models and Coordination" and "Framework Development and Implementation". The full summary report will be published in Fall 2023.

Circular Metals & Materials: Energy Storage & EV Battery Value Chain Workshop

As highlighted by the International Energy Agency, if left unaddressed, the material requirements for renewable energy and energy storage production will quickly become a key bottleneck to the low carbon transition and make progress slower and more costly. This is especially true for critical and strategic metals (CSMs), as the CSM market is projected to grow exponentially. This workshop – hosted by Smart Prosperity Institute, Battery Metals Association of Canada, MERG, CSA Group, and Metal Tech Alley – explored the current understanding of the strategic opportunities for circular policies for CSMs along energy storage (i.e., battery) supply chains to support the net zero transition in Canada.

Key Take-aways:

- Business-to-business cooperation (e.g., partnerships with OEMs and individual operators), along
 with government support, are critical for the development of a more circular battery recycling
 value chain.
- Strategic investments and approaches are necessary to compete with larger international producers of energy storage and EV battery value chains players, such as Europe, America and China.
- There is a need to better understand the lifecycle impacts of the mass deployment of batteries and to develop mitigation measures and practices, including improvements in mining practices and siting.
- There is a need to develop broadly accepted standards for recycling, reusing, and refurbishing batteries and their components.
- Policy can further be leveraged to support the transition towards circularity by providing alignment and incentives for improved disposal and EPR practices.

 Employment, Reconciliation, and other social impacts are likewise important considerations when thinking about the circularity transition to ensure the development of a strong green economy and specialized workforce.

Exploring the Progress & Challenges for Circular Plastic Packaging Workshop

This workshop session provided participants with an opportunity to better understand solutions for circular plastic packaging, and showcased some of the Canada Plastics Pact's guidance documents which have been developed by CPP Partners with an aim to advance circularity for plastic packaging by harmonizing approaches across packaging use and design - including the Canadian guidance with respect to Golden Design Rules for Plastic Packaging, the Pathways to Mono-material Flexible Packaging, and the CPP's draft Unnecessary and Problematic List.

This workshop included short presentations on solutions and participant-led discussions addressing challenges and opportunities emerging from these documents, as well as other topics related to plastic packaging.

Advancing a Net-Zero Agri-food System Workshop

What does it mean for food supply-chains to be circular, regional, net-zero, and resilient? And how do we achieve a transition to such? In this workshop, thought-leaders and changemakers working in this space shared their current efforts and priorities and explore what it means to have a net-zero, agri-food system. The workshop included table break-outs where delegates could add their own knowledge and experience to the conversation in order to determine the immediate next steps of a national action plan and bring this vision to reality.

Circular Buildings & Materials Workshop

The potential impact of greater circularity in the construction and built environment sector is immense. But how do we achieve these outcomes? This workshop, presented in collaboration with CELC, CSA Group, CERIEC, Light House, and COIL, explored the benefits of circular construction and deconstruction practices, and provided insights on how to expand best practices across the value chain and building life cycle. The full summary can be found here.

Key Take-aways:

- Embodied carbon is difficult to quantify given barriers around EPD and inconsistencies in the data sets; however, there is still a need to take action even without the perfect tools.
- Additional strategies exist beyond improving the sustainability of materials, such as enhancing the longevity of buildings and their adaptability, including behaviour and usage patterns (e.g., intensifying use at night).
- An opportunity exists to undertake early assessments of buildings to determine if they can be adapted for reuse, even before the final stage of life of the building for planning purposes.
- Procurement must be designed to factor in embodied carbon considerations.

- Opportunities exist to do more urban mining as a source of resources.
- There is an important role for policy to support deconstruction efforts (e.g., building codes should get rid of restrictions that don't favour circularity).
- On-site sorting needs to be improved in order to capture higher-value materials.
- There is a need to evaluate markets to identify the issues, accessibility, and availability of materials.
- Can also look at fiscal measures, such as taxes on virgin materials, and channel this toward developing secondary marketplaces.
- An opportunity exists to expand the use of material passports and Environmental Product Declarations (EPDs) to capture instructions and information.
- An opportunity exists to document the operations of companies that do it successfully to learn from these case studies and best practices.
- In order to be efficient, we need to build capacity. There is a lack of knowledge for contractors around circular strategies.
- Need more training for architects and young people that want tech jobs; could fill the labour shortage gaps using solutions such as AI and automation in the construction sector.
- Prefab can evolve into greater application of automation for new buildings with end of life in mind.
- Deconstruction could be a major area for inclusive employment and address labour challenges.

Scaling Regional Collaboration: Seizing Circular Economy Opportunities beyond Borders



Watch the session recording

Effective collaboration at a regional level will be essential for scaling circular economy ambitions given the interconnectedness of global supply chains, the need for harmonized policies, and efficient infrastructure. This session explored the cross-border considerations across North America and internationally, including opportunities for export and trade, access to critical materials, and market development.

Speakers:

- Moderator: Mark Fisher, CEO, Council of the Great Lakes Region (CGLR)
- Ramona Liberoff, CEO, Platform for Accelerating Circular Economy (PACE)
- **Ilse Esparza Magaña**, Project Lead, Green Growth, Commission for Environmental Cooperation (CEC)
- Adina Renee Adler, Deputy Executive Director, Silverado Policy Accelerator

Key Take-aways:

- There is an existential risk that the Global South will not be able to transition away from fossil fuels; running the risk of creating a global justice issue.
- The Inflation Reduction Act in the United States is a huge driver for the use of recycled metal in the automotive industry, and recycling in batteries and minerals. There is opportunity for this to be scaled to other sectors.
- Big banks, while currently focused on carbon in Canada, can begin to adopt sustainability and circular economy strategies.
- There is significant difficulty in implementing a circular economy for small communities and towns due to lack of resources and the less-connected nature of these municipalities to others.
- Building a circular economy network for municipalities across the country (and internationally) can improve communication and coordination which is key for large-scale change.

Next Steps: Launching the Action Plan

To wrap up the Canadian Circular Economy Summit, the event organizers presented highlights captured during the event as delegates provided input on the emerging Action Plan for Canada.



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