We thank you for your continued support in our efforts to contribute to a more circular economy in the Pacific Northwest.

We acknowledge the first and continuing custodians of the grounds upon which we all work, create, live and dream.

We recognize the unique and enduring relationship that exists between Indigenous Peoples and their traditional territories worldwide. We welcome their deep knowledge and participation in the regenerative circular economy.
# TABLE OF CONTENTS

| 01. | **Introduction:** Importance of Innovation & the Circular Economy |
| 02. | Participant Profile |
| 03. | **Opening Plenary:** 4IR & Cleantech Solutions for Circularity |
| 04. | **Panel 1:** Circular Transportation & Reverse Supply Chains |
| 05. | **Panel 2:** Circular Plastics & Packaging |
| 06. | **Panel 3:** Electronics & End-of-Life Recovery |
| 07. | **Closing Plenary:** The Path Forward - Regional to Global Circular Solutions |
| 08. | Closing Remarks |
On December 7, 2021, the Cascadia Innovation and Circular Economy Conference brought together participants from across the Pacific Northwest to examine the linkage between the circular economy and innovation.

The conference was a collaborative effort which examined circular strategies across three sectors: transportation and logistics; plastics and packaging; and electronics/e-waste. The presentations and discussions demonstrated how circular innovation applications of the Fourth Industrial Revolution (4IR) - such as physical, digital and biological technologies - can enhance economic competitiveness and investments in the region and beyond.

The objectives of this event were to:

- Raise awareness and educate on the circular economy and linkages to regional and global industrial competitiveness.
- Understand the barriers and supportive policy and market enablers for advancing the circular economy and innovation in the Cascadia region.
- Profile sector and supply chain challenges, connecting 4IR/cleantech solutions with industry needs and challenges.
- Expand the circular economy community across the region as a precursor to establishing a regional circular economy innovation cluster.
PARTICIPANT PROFILE

More than 300 people registered for this virtual event.

Participants represented a wide range of backgrounds, industries, and sectors, from the private and public sectors, not-for-profits, and academic institutions, largely from Canada and the United States.

Out of the participants surveyed, 57% said that their top reason for attending was to learn about circular solutions, while 43% indicated that their top motivation was for networking.

Networking: 43%  
Learning about circular solutions: 57%
WELCOME: Importance of Innovation & the Circular Economy

We are in a climate crisis.

Our linear economy is driving three global environmental crises: climate change; ecosystem and biodiversity loss; and environmental pollution. In addition, it also leads to huge economic losses.

On the other hand, the circular economy (CE) offers tremendous economic opportunities while offering solutions to these environmental problems. However, our current economy is less than 10% circular.

The CE presents solutions to our economic and environmental challenges through three key principles: Rethinking, Optimizing, and Regenerating.

Ultimately, CE is about prosperity in a world of finite resources.

The four key drivers of circularity in North America are: Investment, Innovation, Policy, and Partnerships. This conference focuses on Innovation, in an effort to stimulate collaboration and growth, and overcome the barriers facing progress.
Tackling the Climate Crisis Through Circular Innovation

Helen Burdett
Circular Economy Innovation Lead
World Economy Forum

Ashima Sukhdev
Climate Mitigation & Circular Economy Policy Advisor
City of Seattle

Watch the recording
If we want to fix the climate, we need to fix the economy - and CE provides the solution to this problem.

Helen Burdett and Ashima Sukhdev unpacked what we need in order to successfully and sustainably implement a CE.

**Future-proofing**
- CE is more than a sustainability effort - it is a business decision and opportunity.
- If we create an unjust CE, we have not succeeded.

**CE is a mindset**
- We need to place "rethinking" and "optimizing" at the forefront of our approaches and processes.
- This shift can (and needs to) happen at all levels.

**Systems change**
- We are in need of coordinated efforts from all levels of society.
- We need to expand our conceptualization of responsibility to mitigate playing the blame-game and engaging in holistic reduction and regeneration strategies.

**Safe spaces**
- We need to create enabling environments for CE to thrive by creating safe spaces for innovation.
- This is an urgent need to be addressed, and governments and policymakers need to intervene.
Circular Transportation & Reverse Supply Chains

Evguni Loukipoudos
CTO
Canada's Digital Technology Supercluster

Eric Beckwitt
Co-founder and CEO
Freightera

Laura Guzman
Director of Government Affairs & Partnerships
Hydra Energy

Jury Gualandris
Associate Director of the Building Sustainable Value (BSV) Centre
Ivey School of Business

Watch the recording
PANEL 1:
Circular Transportation & Reverse Supply Chains

How is circular transportation affecting other sectors? What operational barriers are we undertaking when it comes to CE? To what geographic scale should circularity be pushed to avoid unintended consequences?

Four experts answered these important questions (and posed many more) in our discussion on circular transportation and reverse supply chains.

01 Stepwise processes
- Start local, start small - then scale up.
- Think both about economies of scale and economies of scope.
- Invest in policies that increase supply, but more importantly, that also increase demand.

02 Decentralization
- Many very small, very efficient enterprises are more stable and resilient than our current system of many large corporations.
- Localized business can better adapt to local environments.

03 Rethinking the concept of waste
- "Waste" is a socially constructed concept that assumes there is no value in a resource.
- Waste is not only a prevention problem but also a re-distribution problem.
- We need to fully assess all parts of a product lifecycle for carbon outputs.

04 Self-sustaining communities
- We need to build environments that are replicable.
- We need to think about the concept of the 100-mile diet, but for all products.
Circular Plastics & Packaging

George Roter
Managing Director
Canada Plastics Pact

Peter Van Stolk
CEO
Fresh Local Solutions

Apala Mukherjee
President
BASF Canada

Adrian Tan
Policy & Marketing Development Manager, Recycling & Environmental Services
King County

Watch the recording
This can't wait until 2030. We need change, accountability, and trust.

Our panelists had a clear vision for the future of plastics. While no easy calling, they are working within their organizations and communities to bring the circular dream to life. During their discussions, they identified key considerations that can provide feasible pathways to advancing circularity.

01 Centralizing circularity
- Limiting the impact of CE to our perimeters does not work. We need it at the heart of our businesses, systems, and societies.
- Partnerships are crucial, whether it's public-private or private-private.

02 Extended producer responsibility
- We need extended producer responsibility - ultimately, it comes down to the business case.
- Even if you aren't the producer, you should be accountable for what you offer your customers.
- CE needs to be equitable and just in order for it to be sustainable.
- We need to integrate reverse logistics into business plans.

03 Digital innovation
- Digital technology can help us manufacture more efficiently, identify upgrade opportunities, and scale up.
- We need to harness the technology available to us and embrace a radical change in economic and business models rather than holding on to broken systems.

04 Right information equals right decisions
- Consumers have the right to know the impact of the products they buy.
- We believe that if consumers are given the right information, they will make the right decisions.
- Businesses should strive to educate their clients.
- Industry needs to garner trust.
Electronics & End-of-Life Recovery

Sonya Sundberg
Executive Director, Environmental Standards Branch, Ministry of Environment & Climate Change Strategy
Province of British Columbia

Dan Reid
Director of Environment & Circularity Responsible Business Alliance & Circular Electronics Partnership

Kesava Viswanathan
Director, Circular Center Program Microsoft

Watch the recording
The electronics industry has a lot of low-hanging fruit for the CE. At the same time, it also presents a plethora of new challenges.

How do we proceed? Our panelists discussed the unique positionality of the electronics industry within a CE framework, and how the dynamism and innovation inherent to this sector pose unique opportunities and obstacles for a CE.

01 New risks & obstacles
- Is innovation incompatible with circularity, due to its constant change and disruption?
- The market value of recycled materials is very affected by the lack of social and environmental assurance on materials in the electronics market.

02 Transition to service-industry
- Being service-focused reduces the need for hardware and improves circularity capacity.

03 Collaboration is key
- Scalability is a challenge that needs to be addressed through collaboration and partnerships.
- Suppliers are the experts of their materials, and make valuable partners when talking about a change as huge as circularity.

04 Innovation across lifecycles
- We cannot innovate with just technology; rather, we need to innovate across the supply chain.
- We need to build end-of-life processing into our plans.
The Path Forward: Regional to Global Circular Solutions

Bill Wescott
Managing Partner
Brain Oxygen LLC

Robert Duff
Sustainable Business Development Director, Office for Economic Development & Competitiveness
Washington State Department of Commerce

Frances Edmonds
Head of Sustainable Impact
HP Canada

Armando Yáñez Sandoval
Head of Green Growth Unit
Commission for Environmental Cooperation (CEC)

Watch the recording
Circularity is decoupling prosperity from consumption - it really is a "free lunch" when it comes to the climate.

Our final discussion takes on the topic of what CE is all about, and what steps we can take to move us closer to that goal.

**CE fixes the design problem**
- CE is not trying to fix a waste problem, but a design one.
- Procurement is a common blind spot that needs to be addressed.

**CE strengthens communities**
- Consumers and communities can and need to be empowered through CE.
- We need to start reclaiming the concept of value.

**CE is about connectivity**
- CE reveals how we are all connected, and how we can harness this for the collective good.
- Communication is crucial - we need to speak a common language.

**CE is a team sport**
- CE requires robust networks that share information, support, and resources.
- Commerce can no longer operate independently from environmental agencies.
- The success of CE will be through organization.
Participating Organizations:

A&W Food Services of Canada Inc.
Agriculture & Agri-Food Canada
Acer Inc.
Acumentor LLC DBA Smokeless Chimney
Aevi
AI Shading
Allegro Global Corp
Appropriate Technology Group
ArcelorMittal
Aspen
Association Camerounaise pour le Developpement de l’Entraide Sociale et la Protection de l’Environnement (BASF) Canada
BASI
B.C. Ministry of Jobs, Economic Recovery and Innovation
B.C. Ministry of Environment and Climate Change Strategy
Belnor Engineering
Beyond Group
BGIS
BriBreeze
Blue Daisy Consulting
Bluesky Strategy Group
BrainOxygen LLC
British Columbia Institute of Technology (BUILDGREEN) Products
Cambium Inc.
Canada Plastics Pact
Canada’s Digital Technology Supercluster
Canadian Critical Minerals & Materials Alliance
Canadian Manufacturers & Exporters
Canadian Tire
Canadian Tire Corporation
Cano Company
Cascadico (Caelum Northwest)
CASE
Catalyst Agri-Innovations Society
Catalyst Strategies Inc.
Center for Sustainable Infrastructure
CHEP Canada
Church & Dwight
Circular Economy Leadership Canada
Circular Electronics Partnership
Circular Innovation Council
Circular Regions
Circular Supply Chains Inc.
City of Abbotsford
City of Nanaimo
City of Richmond
City of Seattle
City of Toronto
City of Victoria
CleanTech Alliance
Climate Action Secretariat
Coast Waste Management Association
Columbia Shuswap Regional District
Commission for Environmental Cooperation
Consulate General of Canada in Seattle
Corning Incorporated
DE P
CSA Group
CSIR
Data Science Technologies, LLC
DEBRAND SERVICES
Deloitte
Dillon Consulting Limited
District of Squamish
District of Summerland
EB Angels
EVEIG
Encorp Pacific Canada

Envirolum Consulting Inc.
Environment and Climate Change Canada
Environmental Defense Canada
Erthos Inc
Ferguson Tree Nursery
FoodX Technologies
Foresight Canada
Foster School of Business
Freightera
Fresh Local Solutions LLC
Generac Grid Services
Globalnastics
Goodall Infrared Services, Inc
Government of Northwest Territories
GreenSeeds Music Society
Herbert B Jones Foundation
HP Canada
HSR Zero Waste
Hydra Energy
Idaho National Laboratory
IFCO Systems NA
Impact Bioenergy
Indian Resource Council
Information and Communications Technology Council
Ingrid Liepa
Innovation, Science and Economic Development Canada
Iterait
Ivey School of Business
Wastenot Systems
Kind Your Own Business
King County
Kris Ord Consulting
Kwantlen Polytechnic University
LCCI
LEGO Canada Inc.
LHH Knightsbridge
Logitech
Lup Columbia
MetaHelm
Metro Inc.
Microsoft
Mighty House Construction
Mississippi River Cities and Towns Initiative
National Research Council of Canada
National Zero Waste Council
Natural Resources Canada
Natures Path Foods
Nestle Canada
Net Zero Game ApS
Northern Alberta Institute of Technology
NOVA Chemicals
Nutrien
OCO, Inc
Odgers Berndsen
Omdm
Oracle
OrgName
OWIT Ottawa
Pacific Edge Properties
Pacific Northwest Center of Excellence for Clean Energy
PheCo
Plastic Bank
Plastic Oceans Foundation Canada
PMI Worldwide
Port of Seattle
PreZero US
Prime Strategy & Planning
Progressive Strategies
Province of British Columbia
Province of Manitoba
Province of Saskatchewan
Quantum Lifecycle Partners
Reclay StewardEdge
Refllexia
Regenerated Textiles Industries LLC
Regenerative Waste Labs
Region of Peel
Regional District of Nanaimo
Resource Recycling Systems
Responsible Business Alliance
Reusables.com
Royal Roads University
Scrapless
Seagate Technology
Seattle Children’s Hospital
Seattle Creative Studio LLC
Seattle Good Business Network
Seattle Public Utilities
Seattle 2030 District
Share Reuse Repair Initiative
ShareWares
Smart Prosperity Institute
Sodexo
SolarSteam
Standards Council of Canada
Statistics Canada
Strategiem
Styro-Go Canada Inc.
Suppli
Surfrider Canada, Vancouver Island Chapter
Sustainable Fiber Technologies
Synergy Foundation
Taylor Label
Teck
TELUS
TeraHelen
The Natural Step Canada
The Wilder
TOMRA
Torontom CAT
Global Affairs Canada
Trend Micro
Turner & Townsend LLC
UNEP North America
UniSol Inc
University of British Columbia
University of Illinois at Urbana-Champaign
University of the Fraser Valley
University of Turin
University of Washington
Up Marketing
US Green Chamber of Commerce
US Plastics Pact
United Nations Environment Programme
Vancouver Coastal Health
Vancouver Economic Commission
Vertue Lab
Veza Global
VIZIO
Walker Environmental Group
Walker Industries
Washington State Department of Commerce
Washington State Department of Ecology
WefCircular
World Economic Forum
World University Service of Canada
WSP Canada Ltd.
Zero Waste BC
Zero Waste Sooke
Zero Waste Washington
ZILA Works
3D Sustainable Developments, SPC
5T Sports Group
7 Leagues Leather
Disclaimer:

The information, concepts and recommendations expressed in this document are based on information available at the time of the preparation of this document. Action or abstinence from acting based on the opinions and information contained in this document are the sole risk of the reader and no organizing or participating organizations have any liability for any damages or losses arising from use of the information and opinions in this document. All information is provided “as is” without any warranty or condition of any kind. The document may contain inaccuracies, omissions, or typographical errors.