CIRCULAR ECONOMY IN CANADA

Federal state
37.9 million inhabitants
10 provinces + 3 territories
Second largest country in the world where more than 90% of the population lives just next to the border with the USA





KEY PLAYERS

- Pan-Canadian Framework on Climate Change and Clean Growth
- Circular Economy Leadership Coallition (CELC)
- National Zero Waste Council: Main Canadian cities are members
- C40 Group: Montreal, Toronto, Vancouver
- <u>Municipal Collaboration for Sustainable Procurement</u> (MCSP) is a collaboration of Canadian municipalities to share best practices in sustainable public procurement (includes main cities in the provinces of BC, Ontario, Manitoba, Alberta, Saskatchewan, Nova Scotia, and Yukon).



CANADA



PHASE 1 (Nov 2019 - Dec 2020): Value Chain Mapping and Optimization Proposals PHASE 2 (Jan 2021): Pilot Projects to Test and Monitor Optimization Scenarios

This next phase of the project will implement and test best practices and equipment in a real-world environment with value chain players.

PHASE 3: Project Replication Outside of Québec

Build on roadmap obtained at the end of phases 1 and 2 and carry out a similar analysis in other markets in order to implement the most promising solutions.





QUEBEC

- ➤ Leader within Canada with regards to circular economy. Strong potential in circularity in the agri-food & energy sectors. The construction and metal production sectors should also be considered key due to the possibilities and advances that they could bring to the province.
- Governmental Strategy of Sustainable Development 2015-2020
- Research Chair in Industrial Ecology and Territory:
 - Supports Québec businesses towards a circular economy
 - Recueil de synergies: 25 projects (2015-2020) in Quebec
 - > Grants for circular economy consultants to work in municipalities helping SMEs apply circular economy principals
- ➤ Montreal ranks sixth among cities with a Smart City government and is part of the C40 Group, cities that are acting with strong measures against climate change
- New 30M\$ fund for Circular Economy Projects will be launched shortly by Fondaction
- ➤ City of Montreal: Zero Waste by 2030 with its new Waste Management Master Plan (2020-2025)
 - ✓ Companies bidding will have to analyse their GhG emissions





QUEBEC



Québec Circulaire is one of the flagship measures of the *Pôle* québécois de concertation sur l'économie circulaire, a voluntary group of leaders from various backgrounds, to accelerate the transition to the circular economy in Quebec. The platform's mission is to bring together the variety of initiatives, tools and expertise currently dispersed and which will multiply over the coming years.





EXAMPLES FROM QUEBEC





Waste to Energy Plant in Tarragona

- 1 TYPE
 Two production line facility
- 2 CAPACITY
 Input: 400K metric tons of waste
 Output: 270M litres per year
- FEEDSTOCK
 Non-recyclable waste from the municipal, industrial, commercial and institutional sectors
- 4 PRODUCT
 Methanol









Production of insects for animal feed – larva are fed using agricultural waste from a malt producer

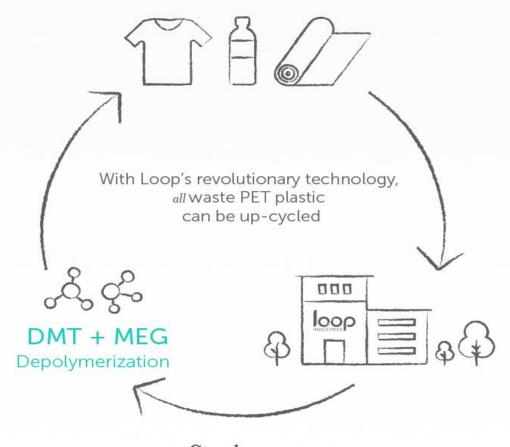


EXAMPLES FROM QUEBEC





Infinite Loop Recycling Facility in Europe - Loop's patented and proprietary low-energy technology enables waste plastic to be recycled an infinite number of times, with no degradation in quality. Dedicated to PET plastic, the facility will be the largest in the world, with the potential to produce the equivalent of approximately 4.2 billion food grade beverage bottles, and it will be able to claim savings of 180,000 tonnes of CO2 annually, compared with virgin PET production.



Circular economy





ONTARIO

- Strategy for a Waste-free Ontario (2017)
- > Toronto: member of the CE100 network
- Agri-food: sector with the most potential
- Resource Recovery and Circular Economy Act, 2016 (RRCEA) - Individual Producer Responsibility (IPR):
 - 1. January 2019: Tires
 - 2. July 2020: Batteries
 - 3. January 2021: Electronic products
 - 4. July 20121: Dangerous or special waste

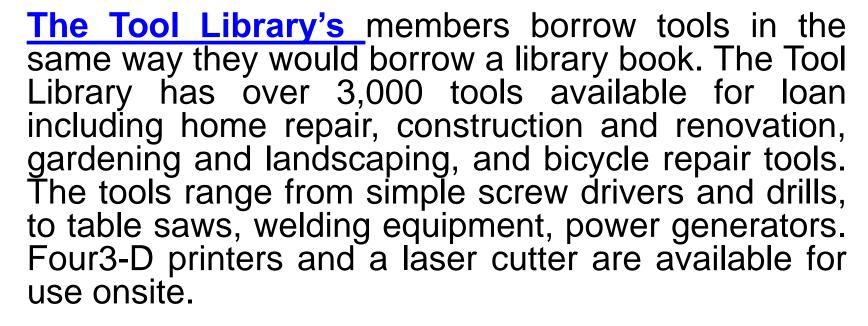






EXAMPLES IN ONTARIO







Toronto Public Library - Borrow a musical instrument 3 weeks plus 2 renewals for a total of 9 weeks



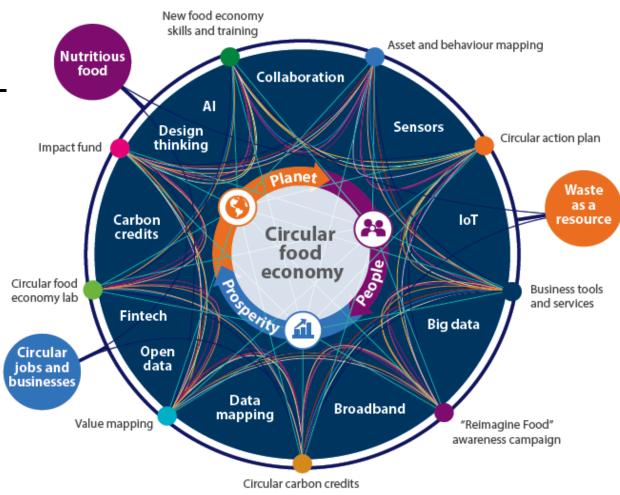
CANADA'S 1ST CIRCULAR FOOD ECONOMY - GUELPH

Guelph-Wellington is working to become Canada's first technology-enabled Circular Food Economy, reimagining an inclusive food-secure ecosystem that:

- increases access to affordable, nutritious food by 50%, where "waste" becomes a resource
- 50 new circular businesses and collaborations are created
- and circular economic revenues are increased by 50%
- 9 initial projects







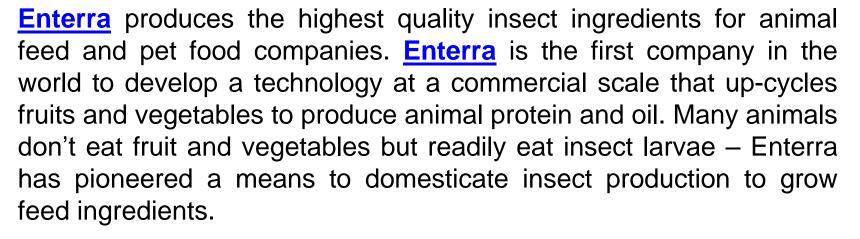
BRITISH COLUMBIA

- BC waste disposal limit / person to reduce impact on land and the maritime environment, creating a recycling hierarchy.
- Vancouver, Zero Waste by 2040
- Sustainable Food Alliance of BC has designed circular structures applied to the food systems of the province.
- Vancouver: member of the <u>CE100</u> network
- NISP® Canada (National Industrial Symbiosis Program) (Vancouver & Edmonton)



EXAMPLES IN BRITISH COLOMBIA







Generalitat de Catalunya

Nico Spacecraft designs and builds furniture for the residential market using PureBond®, a urea formaldehyde-free, moisture-resistant, cost-competitive plywood made by Columbia Forest Products. Its plywood is manufactured using an innovative adhesive inspired by the way mussels adhere to rocks. Through seeking out circular supplies for their small business, Nico Spacecraft has been able to successfully incorporate circular economy practices such as non-toxic materials, design for recycling and durability into their products.

Connecta't a ACCIÓ

EVENTS

- Circular Procurement Summit (Ontario)
- Great Lakes Circular Economy Forum (US-Ontario)
- Movin'on World Summit (QC)
- Semaine de l'économie circulaire (QC)
- Waste Reduction Week Canada (WRW)
- WEAR: World Ethical Apparel Roundtable (Toronto)
- World Circular Economy Forum 2021 (Toronto)
- Zero Waste Conference (ZWC)



