Circular Economy Leaders Consortium

Launch – March 29, 2022

- The meeting will begin shortly
- Participant microphones are muted
- Submit questions at any time via chat or unmute and ask questions
- We encourage you to leave your video on
- Recording of the presentation and slides will be shared after the meeting

partnersinprojectgreen.com

GTAA PARTNERS IN PROJECT GREEN
A PEARSON ECO-BUSINESS ZONE

A program of: Toronto and Region Conservation Authority

We respectfully acknowledge that we are situated on the Traditional Territories and Treaty Lands, in particular those of the Mississaugas of the Credit First Nation, as well as the Anishinaabe of the Williams Treaty First Nations, the Huron Wendat, the Haudenosaunee, and the Metis Nation.

As stewards of land and water resources within the Greater Toronto Region, Toronto and Region Conservation Authority appreciates and respects the history and diversity of the land and is grateful to have the opportunity to work and meet on this territory.

native-land.ca

www.yrnature.ca/acknowledging_land

https://edgeofthebush.ca/about/

www.native-land.ca

Text 1-855-917-5263 with your City and Province
to learn whose traditional territory you're on
(standard text messaging rates may apply)

Agenda

Time	Item
1:00 PM	Land acknowledgement
1:05 PM	Welcome Remarks, Partners in project Green and TELUS
1:13 PM	Icebreaker
1:28 PM	Keynote Address - Jo-Anne St. Godard, Circular Innovation Council
1:43 PM	Q&A
1:50 PM	CEC Overview
2:05 PM	Founding Member Survey Summary
2:10 PM	CEC Roundtable - Founding Members
2:25 PM	Closing Remarks

Welcome Remarks

- Jennifer Taves, Senior Manager, Partners in project Green

- Catherine Leighton, Senior Environmental Consultant, Sustainability and Environment, TELUS

Icebreaker

- Name, title, org
- Motivation for joining CEC
- Something you're looking forward to

AND/OR

- Your favourite place to be

*1 minute per person – pass along when done!

Keynote Address

Jo-Anne St. Godard, Executive Director, Circular Innovation Council

Jo-Anne St. Godard has served as Executive Director of Circular Innovation Council (formerly Recycling Council of Ontario) since 2001. Her expertise focuses on the development of policies, programs, and practices that advance the circular economy, and drive positive environmental, economic, and social outcomes with market-based instruments. In doing so, Ms. St. Godard harnesses unique opportunities to facilitate relationships throughout supply and value chains that transition environmental obligations and interests into opportunities.

Circular Innovation Council – originally established as Recycling Council of Ontario in 1978 – believes that shifting production and consumption in a circular economy simultaneously supports environmental, economic, and social objectives of sustainable living. We are inclusive and collaborative among supply and value chains, and seek to advance business models, products, and services that can deliver on the values and benefits of a circular economy. Through better resource efficiency – reuse, share, repair, refurbish, remanufacture, recover in a closed-loop system – we can reduce waste, pollution, and carbon emissions. In doing so, we showcase innovation by putting circular economy concepts into action.

ADOPTING THE CIRCULAR ECONOMY PRACTICES IN FACILITY MANAGEMNT

Jo-Anne St. Godard

Executive Director

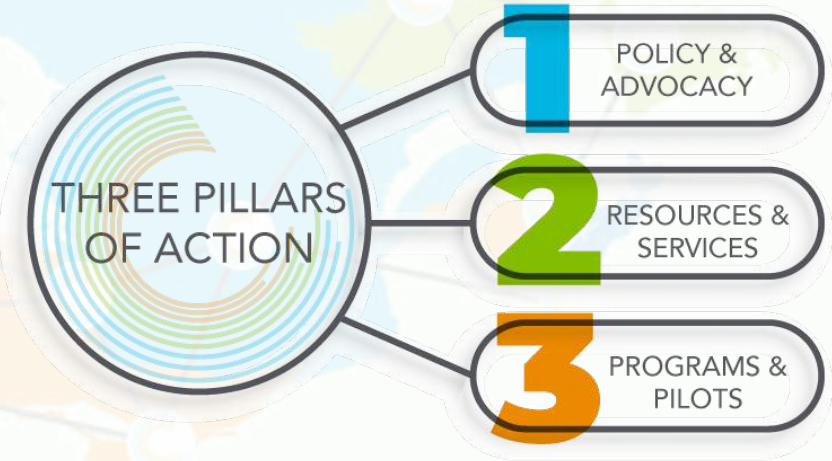
Circular Innovation Council

29 March 2022

CIRCULAR INNOVATION COUNCIL

- **Originally** the *Recycling Council of Ontario,* established in 1978.
- **Initial focus** on waste reduction and recycling, and instrumental in establishing the first global Blue Box program in 1984.
- **Recently transitioned** to the *Circular Innovation Council*, with a **broader mandate: to lead Canada's transition to a circular economy**
- **Unique, multi-stakeholder membership** including governments, industry, academia and citizens
- Facilitate **dialogue** between interests to **advance solutions**

Recycling Council of Ontario



The World is Drowning in Trash

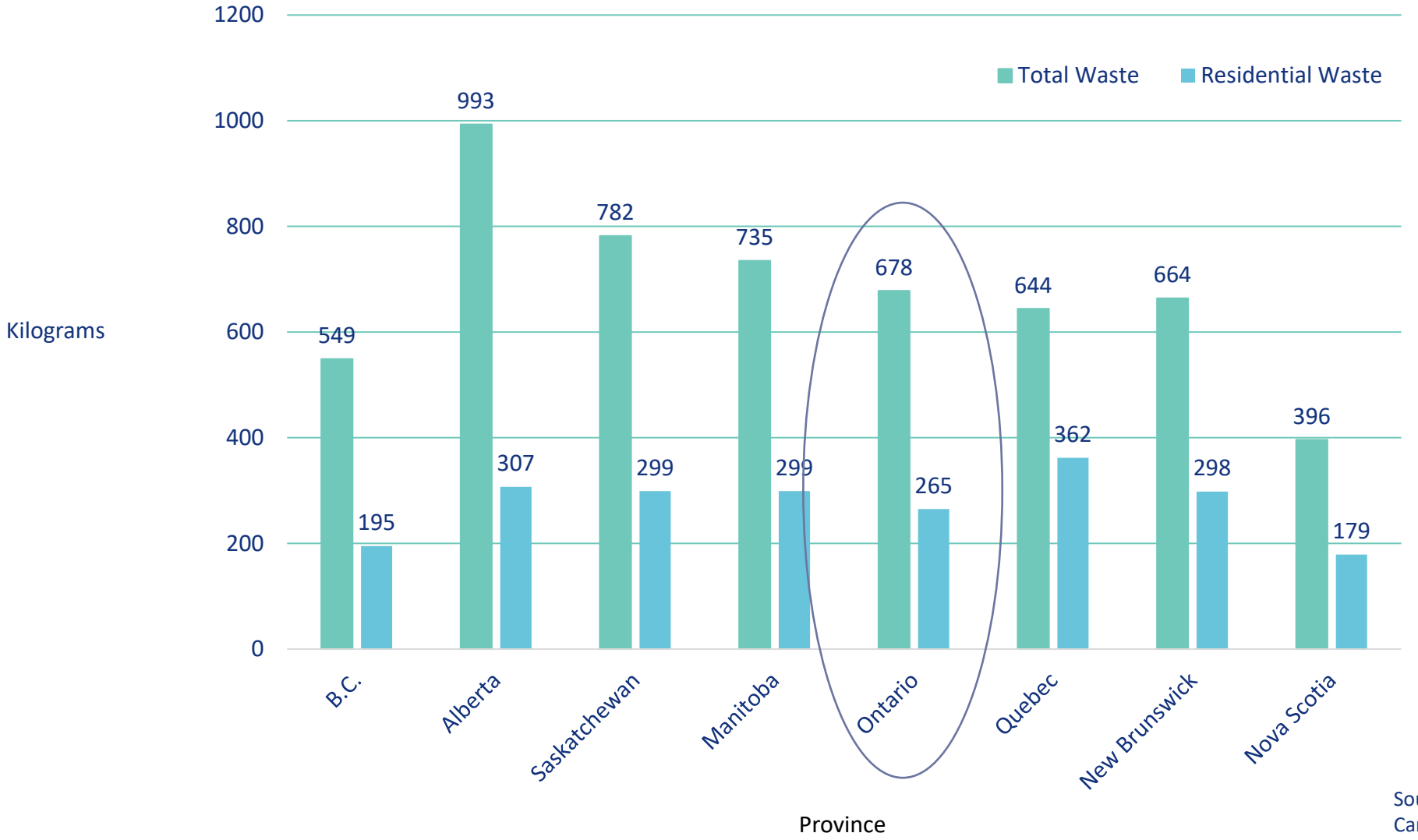
It is estimated the amount of waste countries produce will rise by as much as 70% between 2016 and 2050

Canada's estimated total waste generation is amongst the highest in the world

Estimated annual waste per capita: 36.1 tonnes

Estimated annual waste total: 1,325,480,289 tonnes

Waste Disposed Canada (per capita)



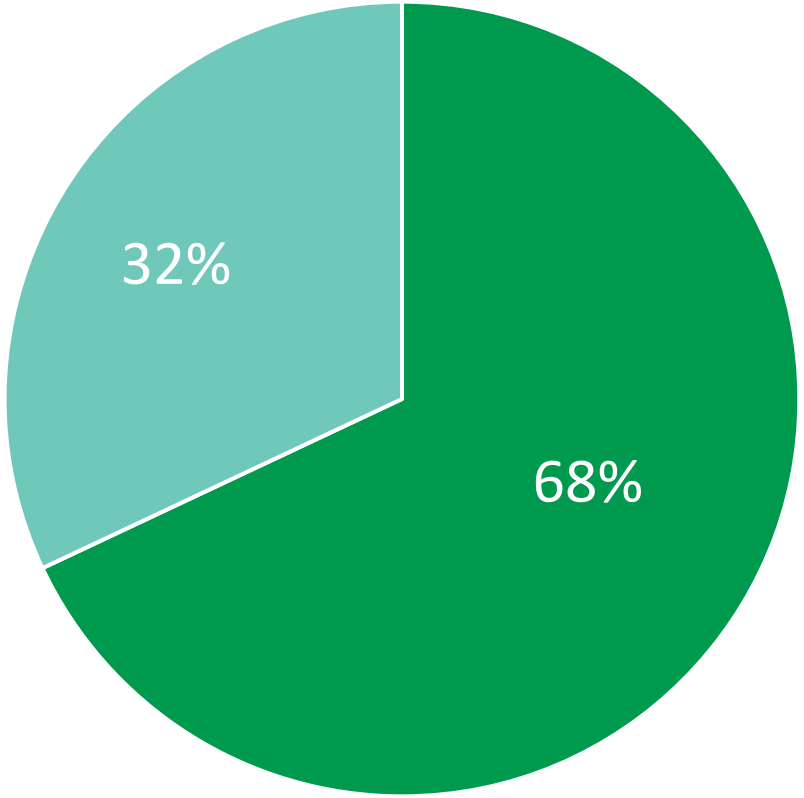
Sources: Statistics Canada Table 38-10-0031 and Statistics Canada 2016 population figures

Ontario's waste Problem

- 2018: 60% or approximately 6.1 million tonnes: generated by IC&I sector
- 2018: pproximately 3.9 million tonnes generated by residential sector
- 2017: Ontario landfills accepted 8 million tonnes of waste and will run out of capacity within 14 years or less
- 3.5 millions tonnes exported to US annually

Ontario's Waste Stream

3.7 million tonnes of food and other organic waste, such as food scraps, soiled paper, and leaf and yard waste

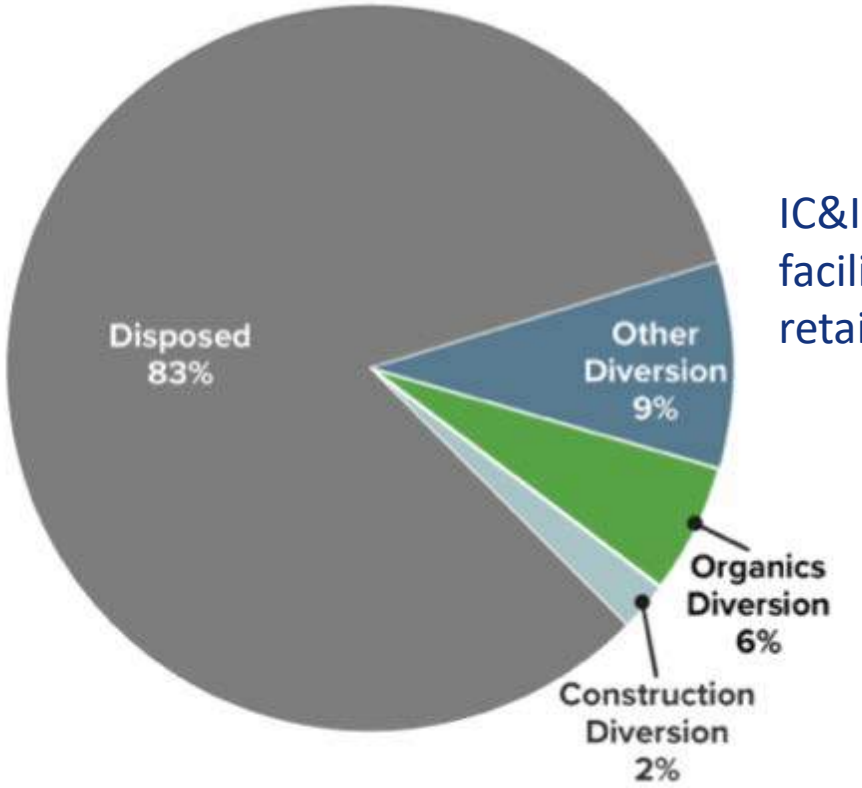


7.9 million tonnes of other material, such as printed paper, packaging, electronics, household hazardous waste

Source: Adapted from Reports on Organic Waste Management in Ontario, prepared or the Ontario Ministry of the Environment and Climate Change, 2015. Note - biosolids are not captured in this chart

IC&I Overview Ontario

Produces 6.9 million tonnes of waste annually
Residential: diverts ~ 50 per cent
IC&I: diverts 17%



IC&I sites: food processing, manufacturing facilities, schools, hospitals, offices, restaurants, retail sites and some apartments.

Sources: Reducing Litter and Waste in Our Communities: Discussion Paper April 2019 / Canada, Waste Management Industry Survey 2017 for non-residential data; Resource Productivity and Recovery Authority, Datacall data and residential diversion rates for residential data. Data on IC&I organic waste from 2018 study prepared for MECP by 2cg.

Regulatory Responsibilities

Federal

- Product Design: what substances can and can not be used
- Transport: International and domestic
- Procurement

Provincial

- Stewardship & EPR
- Disposal bans or levies
- Facility Permits
- Procurement

Municipal

- Residential Services
- By-laws: limits, bans
- Procurement

Policies and Practices

- Regulation exists at all three levels of government
  - Regulated provincially
  - Managed locally
- Residential & IC&I treated separately
- Some municipalities (e.g., Ontario, Quebec) mandated to provide services for residential
- Part of municipal budgets with some fee-for-service/utility-based financial models
- Municipalities have autonomy* on waste management programs:
  - Scope of materials: packaging, hazardous, organics
  - Collection service types: curbside, depot, or combination of the two
- IC&I generally serviced by the private sector, very little regulation

Residential vs INDUSTRIAL, COMMERCIAL, INSTITUTIONAL (ICI)

Residential	Non–Residential / IC&I
Obligation to ensure sanitation services: environmental and social good	Waste management essential but perceived as a cost of managing facility (business or institution)
Taxpayer funded	Privately financed
Services are regional: some economies of scale	Services privately procured building-by-building: no economies of scale
Standardized: consistency in what and how materials are generated or managed	Diverse: no consistency on what and how materials are generated or managed
Mass education programs	Minimal opportunity to educate
Peer-to-peer sharing of best practices	Little peer-to-peer sharing or benchmarking
Public pressure and community pride: environmental performance is part of community showcasing	Little expectation or pressure
Excellent data	Poor data

IC&I Overview Ontario

Regulation 102/94 (Waste Audits and Waste Reduction Work Plans)
Regulation 103/94 (IC&I Source Separation Programs)

- large businesses and institutions identify amount and types of waste they generate
- must develop waste reduction work plans
- separate certain wastes at source
- make reasonable effort to ensure that separated wastes are sent for reuse or recycling

Regulation 104/94 (Packaging Audits and Packaging Reduction Work Plans)

- manufacturers, packagers and importers to audit their packaging practices
- must develop packaging reduction plans.

Unchanged since 1994
Does not include food waste
No enforcement

IC&I Overview Ontario

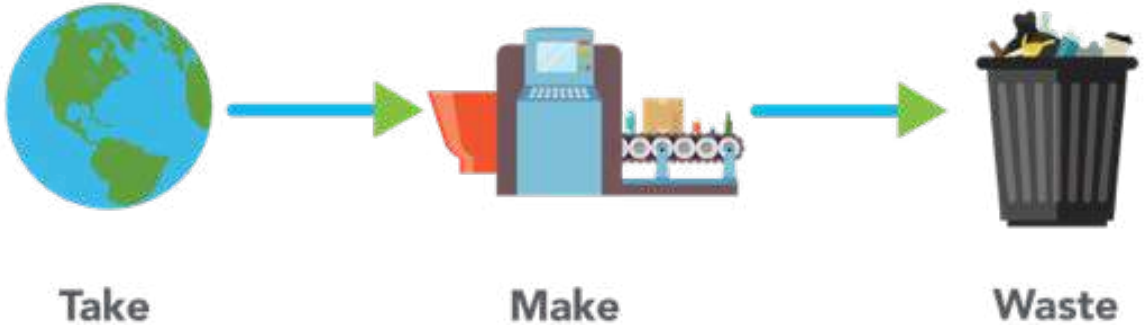
- Lack of regulations (some variance)
- Cheap disposal – lack of recycling markets
- Lack of established and recognized best practices
- Lack of resources and information
- Source of existing resource and information conflicted
- No standardized performance and/or measurement matrices
- Self-claimed performance – no verification
- Lack of co-ordination or comparisons (unlike municipalities)
- Diverse and dissimilar

'Waste is Simply a Valuable Resource in the Wrong Place'

According to IISD, Canada's plastic waste management system, for example, is a lost economic opportunity of approximately **8 billion** and is expected to increase to **11 billion** by 2030.

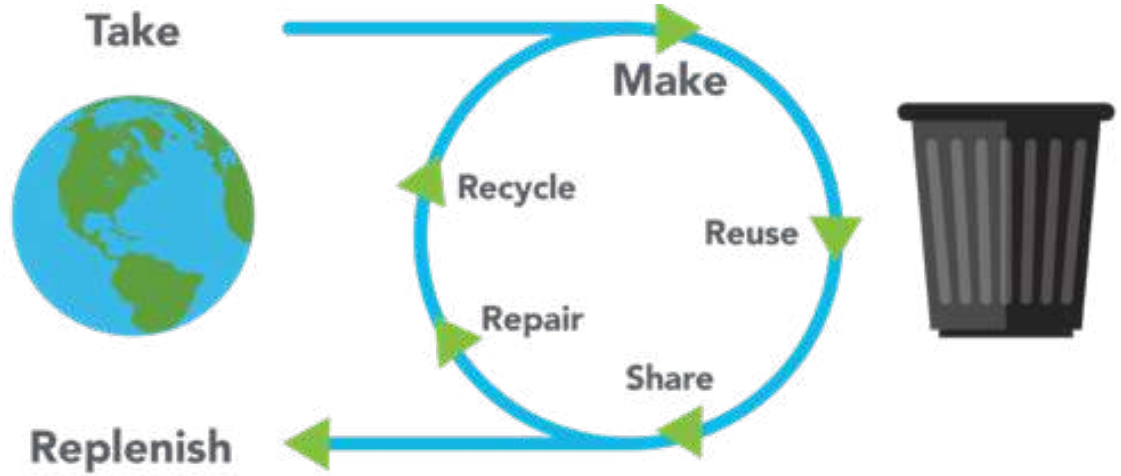
MODELS OF CONSUMPTION

LINEAR



Sustainability is improved by focusing efficiency within “take-make-waste”- model i.e. maximizing economic value with a minimized environmental impact.

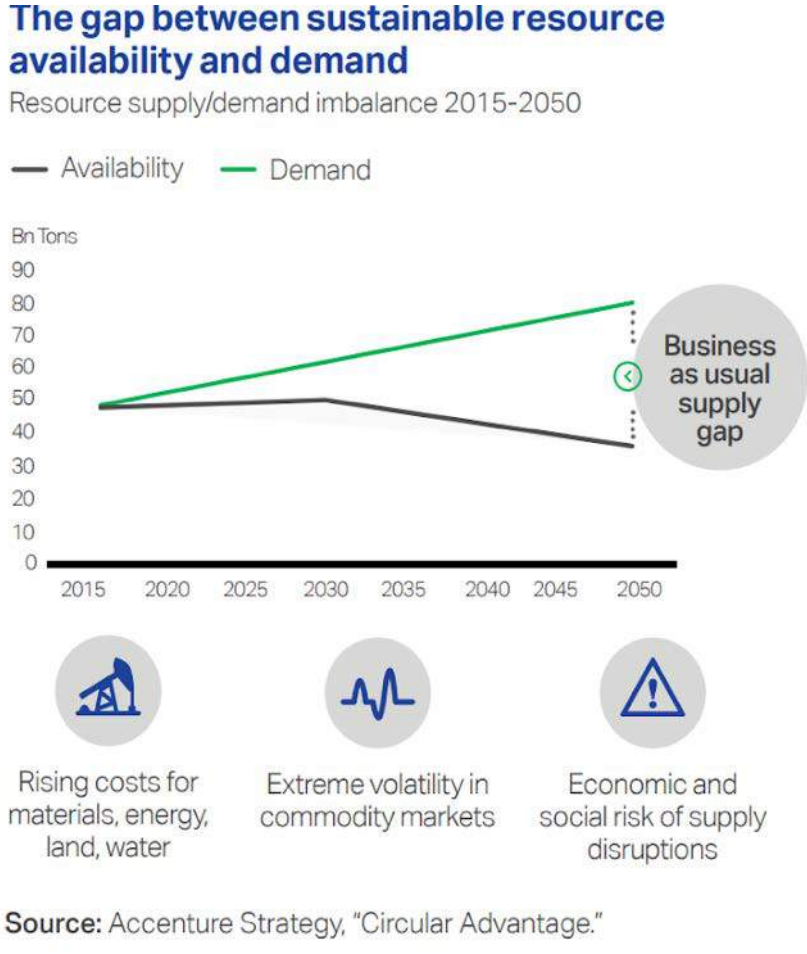
CIRCULAR



Restorative and regenerative by design, and aims to keep products, components, and materials at their highest utility and value at all times.

Accelerate Canada’s circular Economy

- Current linear ‘take-make-waste’ economic model driving spiraling climate, biodiversity, pollution, and related global equity crises.
- Only ~**8.6 % of extracted resources are cycled back into the economy** (60.6% is landfilled or leaked).
- Global **use of material resources** are projected to **double** between 2015 and 2050.
- In 2019, over 92 billion tonnes of materials were extracted and processed, contributing to about half of global CO2 emissions.

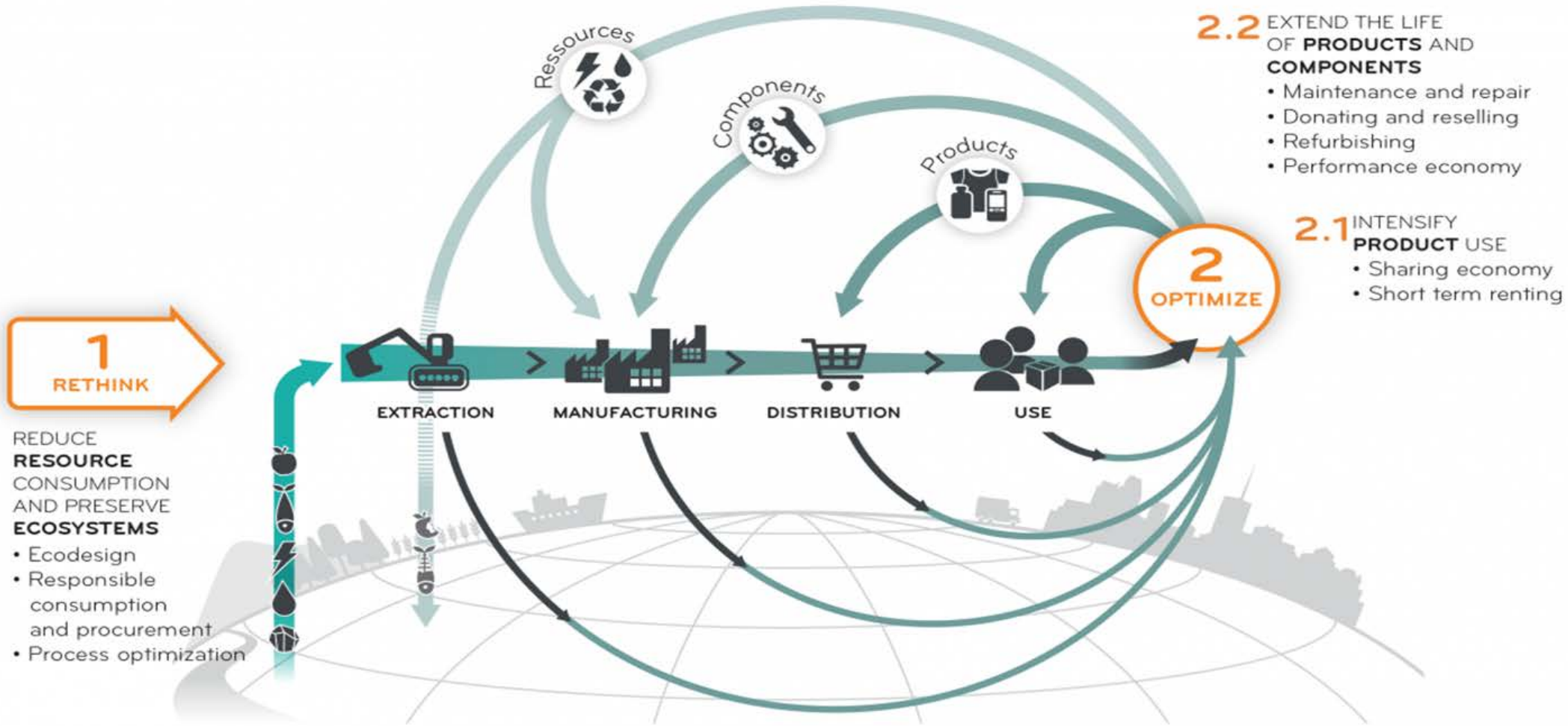


CIRCULAR ECONOMY

2.3 GIVE **RESOURCES** A NEW LIFE
- Industrial ecology
- Recycling and composting
- Energy recovery

2.2 EXTEND THE LIFE OF **PRODUCTS** AND **COMPONENTS**
- Maintenance and repair
- Donating and reselling
- Refurbishing
- Performance economy

2.1 INTENSIFY **PRODUCT** USE
- Sharing economy
- Short term renting



REDUCE **RESOURCE** CONSUMPTION AND PRESERVE **ECOSYSTEMS**
- Ecodesign
- Responsible consumption and procurement
- Process optimization

Benefits

SUSTAINABLE DEVELOPMENT GOALS

benefits

Environmental

- Reduced reliance on virgin materials
- Better efficiency of existing resources
- Create market demand increased for recycled materials and content
- GHG / waste / water usage reduction
- Limit single-use where possible

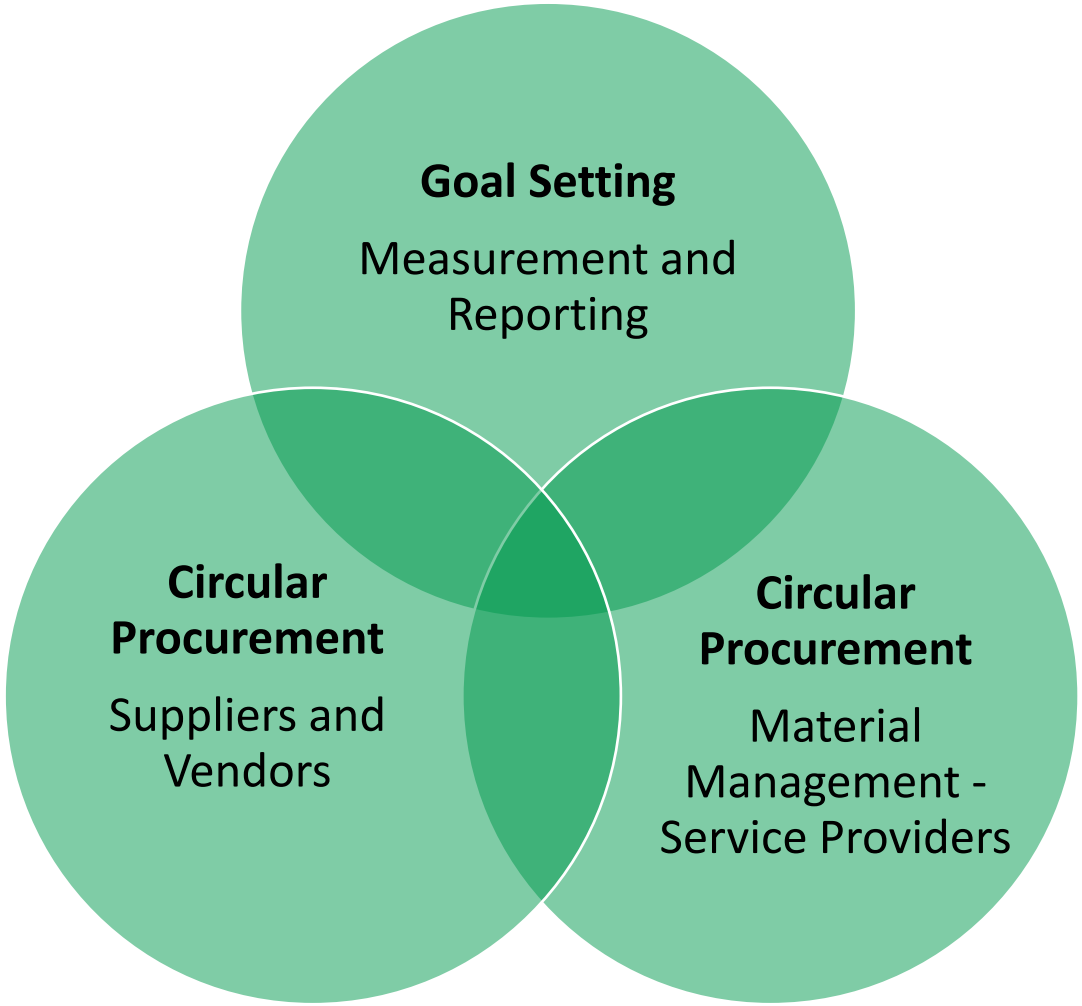
Economic

- Local employment opportunities
- Innovation is stimulated
- New revenue streams created
- Improved fiscal responsibility and economic growth
- Avoidance of purchase or maintenance
- Savings on disposal and management

Social

- Local employment opportunities
- Overcome barriers to employment
- Gender equity
- Engage marginalized communities
- Fosters unique public and private partnerships

Taking Action



Goal Setting – reporting and Measurement

- Conducting a ‘best practice’ waste audit.
  - http://3rcertified.ca/waste-auditing/

- Set targets/objectives from the audit results
  - use it for internal and external education

- Using the audit results as a management tool
    - procurement of suppliers and vendors, (construction, catering, cleaning)
    - on-site management, (tenants & public)
    - Procurement of material managers (waste, recycling, organics)

Procurement; Vendors and Suppliers

- What you bring into your buildings is ultimately what you'll need to manage
- Engage with vendors and suppliers to bring them onside as partners
- Educate them on your CE objectives
- Challenge them to supply your facilities 'tapping into' the 5 circular business models

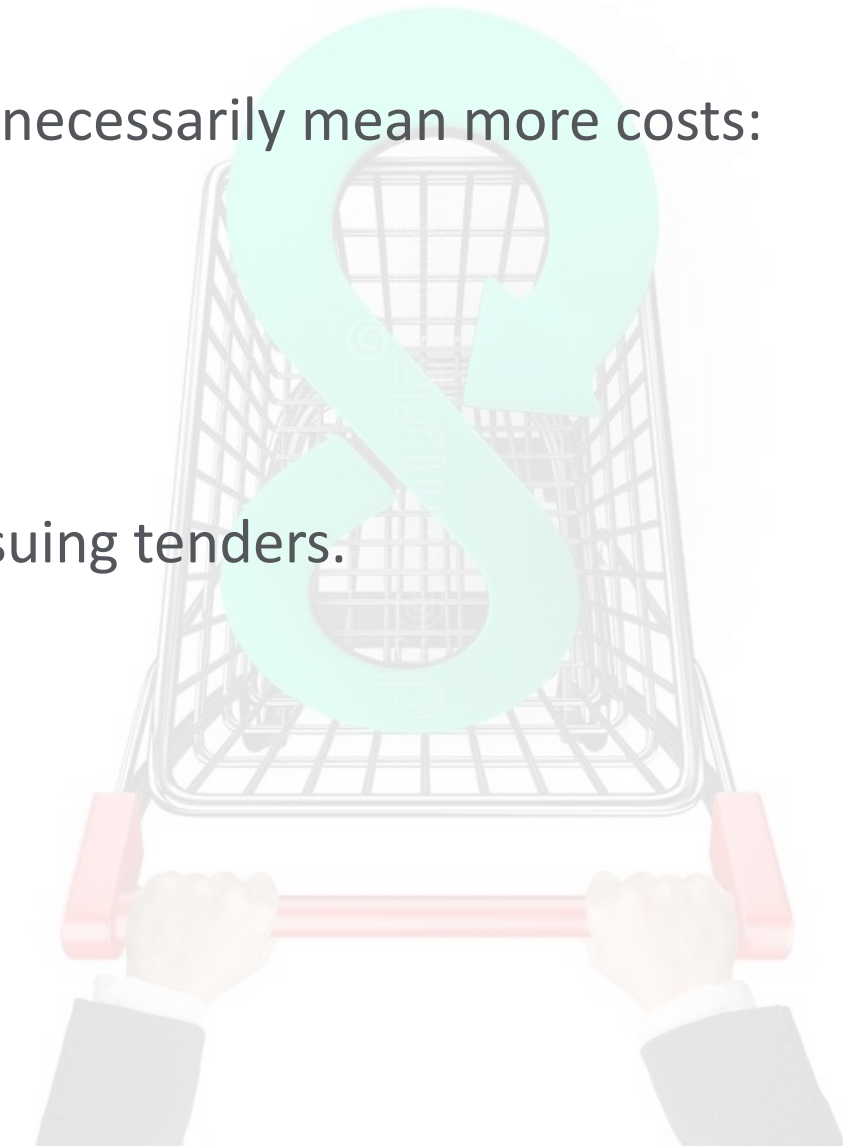
How to buy circular

Benefits

- Supports environmental, economic, and social objectives simultaneously
- Direct and in real-time
- Outcomes focused: *buy the change you want* Can be right-sized or scaled up
- Effective mechanism to shift markets with or without legislation
- Incents innovation: challenges collaborative in nature and works with vendors / suppliers to be innovative
- Can build local supply chains for domestic solutions
- Creates the *right* demand and supply simultaneously
  - Effective market transition tool: economic incentive rather than punitive regulation
- Builds capacity in public and private sectors
- Goes beyond recycling, avoidance, reuse, reduction
- Effectively applied to products, packaging, and systems

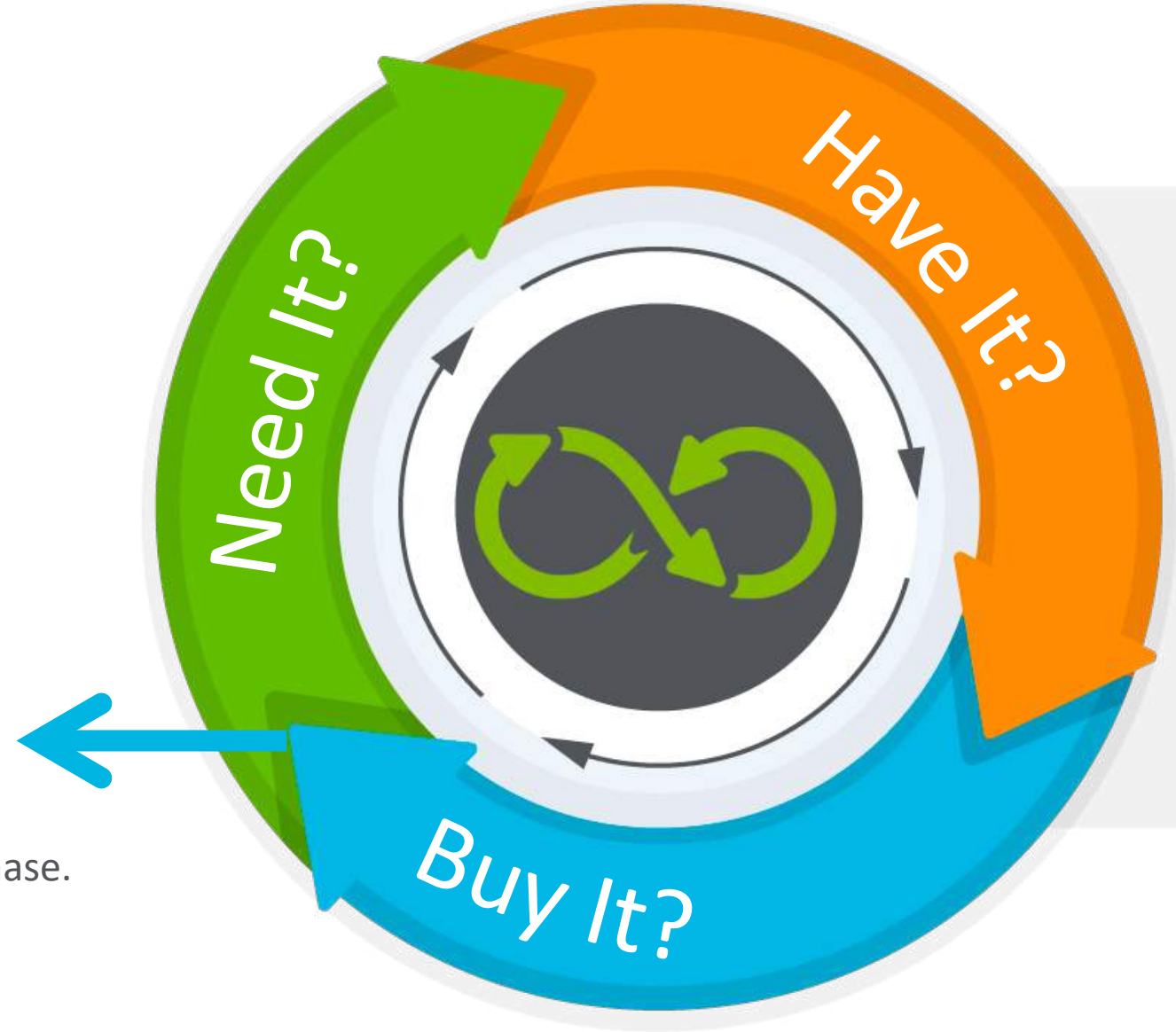
Circular Procurement Principles

- Lowest cost does not mean best value : best value does not necessarily mean more costs:
  - Socialize ambitions with vendors and suppliers.
- Use outcome-based criteria rather than specifications.
  - Share draft criteria with vendors and suppliers before issuing tenders.
  - Weight scoring appropriately to drive outcomes.
- Encourage innovations while maintaining competitiveness.
- Fill immediate need but signal future directions.



MAXIMIZING VALUE

- Do I need to own it?
- How can I get access to its function or value?
- Can I share the risks with my vendor/supplier?
- If I need to own it how can I:
  - Minimize product impacts.
  - Reduce shipping distances or transport impacts.
  - Reward product design and delivery.
  - Track impacts during use.
  - Anticipate end of life at point of purchase.
  - Measure the outcome I am looking for from the purchase.



CIRCULAR BUSINESS MODELS

Circular Supplies

Renewable, recoverable, or biodegradable sources serve as inputs in design and production

Product As Service

Purchase service or result rather than product or asset

Product Life Extension

Prolong lifespan, utilization, and value through repair, remanufacture, resale

Sharing Platform

Mazimize assets by spreading usage and value amongst several users

Resource Recovery

Acquire additional use and value from existing resources by avoiding disposal and impacts from new extraction

Vendor | Supplier Engagement

- Collaboration is vital to the implementation of circular procurement and investment in circular business models.
- Effective market engagement allows for open and pre-competitive dialogue where procurers, purchasers, and suppliers/vendors share experiences and knowledge to create common ground to move forward.
- This process uncovers opportunities and barriers, provides insight into what the market is currently capable of, and marketability to respond to circular procurement requirements.
- Procurers can use insights to inform tender criteria.
- Opportunities to engage with market:
  - Workshops and meetings
  - Request for Information
  - Buying groups

Circular Procurement – Performance- based Material management Services

What is it?

- Performance-based service contracting (PBSC) emphasizes that **all aspects** of an acquisition be structured around **the purpose of the work** to be performed as opposed to the manner in which the work is to be performed
- Procuring a service to drive environmental outcomes:
  (1) waste reduction (2) carbon emission reductions (3) cost savings

Circular Procurement:
Performance- based Material management Services

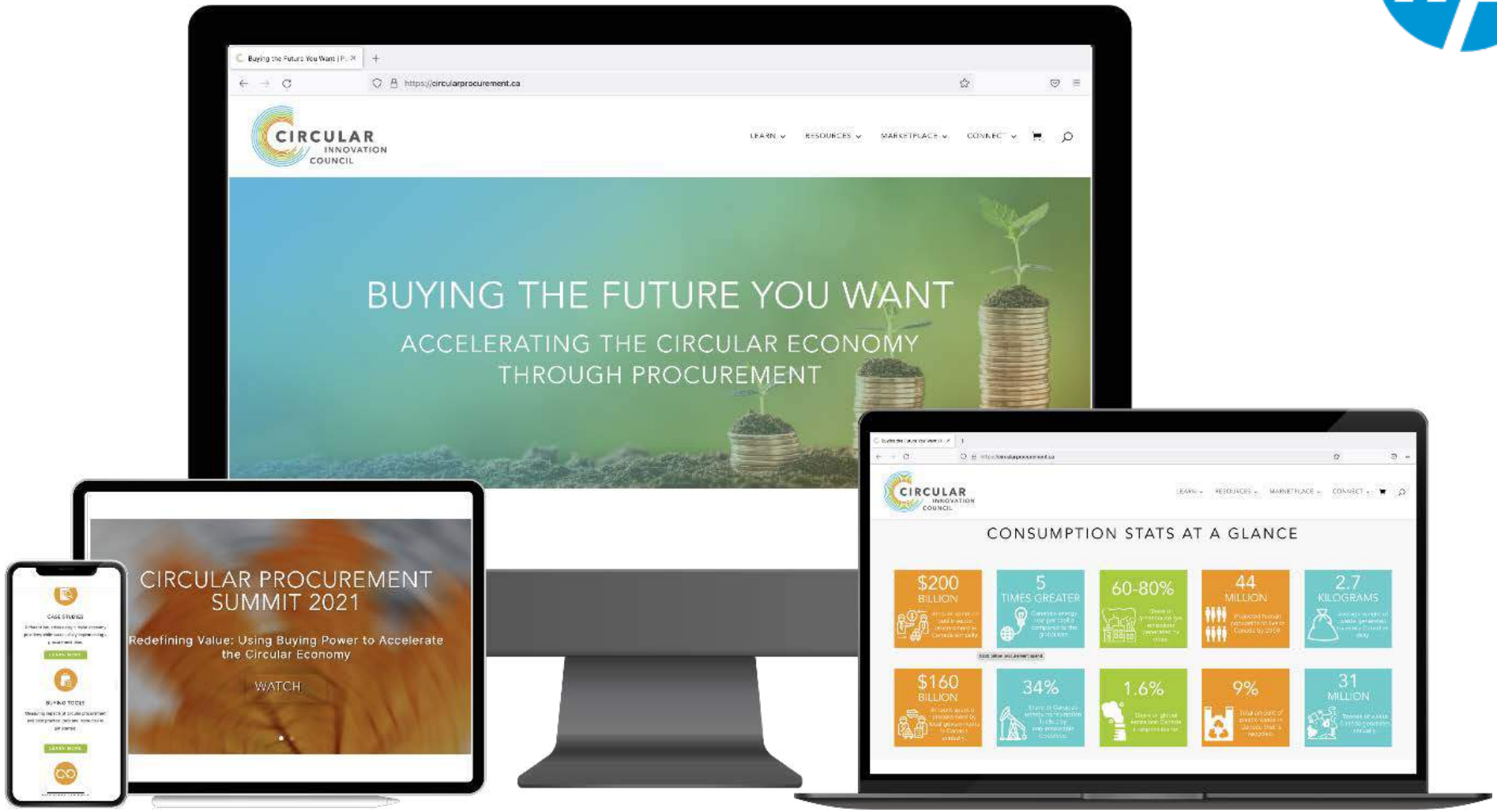
An agreement based on payment mechanisms that:

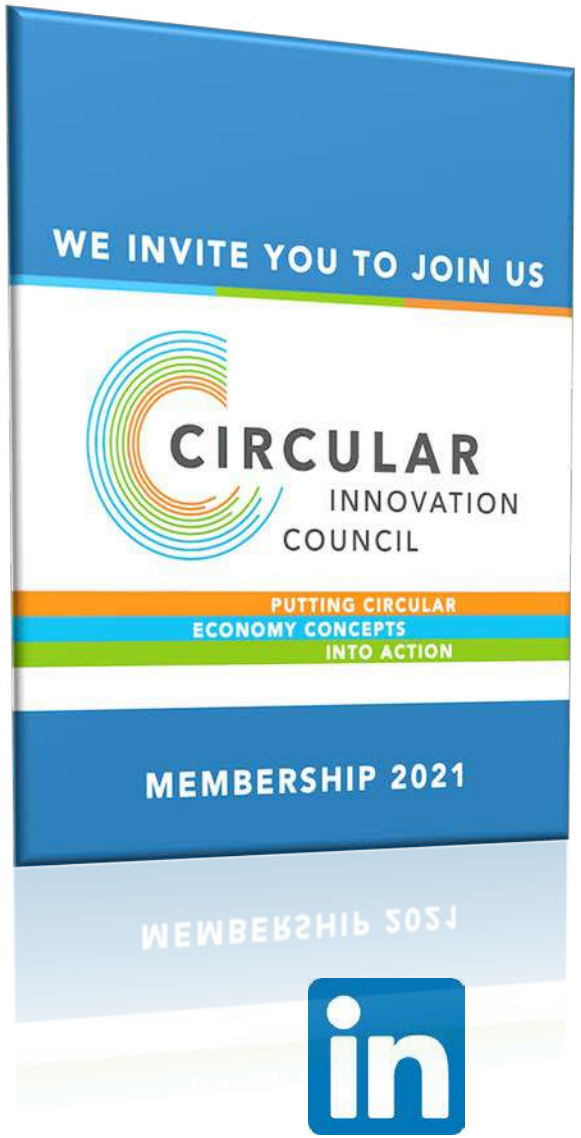
- directly relate to defined performance indicators and targets
- Incentivizes the movement of materials management further up the waste hierarchy
- Enhances the prospects for improved resource efficiency and circular outcomes.

CUSTOMIZED TRAINING

- Build overall knowledge of circular economy, circular procurement and its benefits.
- Strengthen links for departments and functions to leverage procurement to drive broader policy objectives.
- Educate suppliers and signal future requirements and shift markets.
- Better understand capacity and opportunity that suppliers have to respond to circular requirements.

Circular procurement.ca





Jo-Anne St. Godard

905.586.5866

JoAnne@CircularInnovation.ca

/company/CircularInnovation

/CircularInnovationCouncil

/CircularInnovationCouncil

@CircularOnline

Q & A

Circular Economy Leaders Consortium Program Overview

Circular Economy Leaders Consortium

- **Achieve measurable waste prevention and diversion goals**
- **Scope**: Facility management and operations
- Partnership with **TELUS**
- 7 Founding members

CEC Advisors

- Circular Innovation Council (CIC) http://circularinnovation.ca/
- Circular Economy Leadership Canada (CELC) https://circulareconomyleaders.ca/
- York University (Waste Wiki) https://wastewiki.info.yorku.ca/
- Circular Opportunity Innovation Launchpad (COIL) https://coil.eco/

Objectives

- **Leadership and collaboration** - Empower exclusive group of sustainability professionals
- **Knowledge sharing -** Best-practices and innovative technologies in facility waste management
- **Facilitate education and actions -** Support waste reduction and diversion
- **Facilitate collective projects** - Strategizing solutions to common challenges

Measurable Goals

- Waste reduction
- Waste diversion and resource recovery
- Greenhouse gas emission reductions

Key Activities

- Launch consortium: March 29, 2022
- Host CEC sessions April 2022- March 2023:
  - Host half-day on-site sessions with roundtable discussions (3)
  - Host virtual roundtable discussions (3)
  - Host virtual educational sessions with guest experts (4)
- Member recruitment
- Identify collective project/s

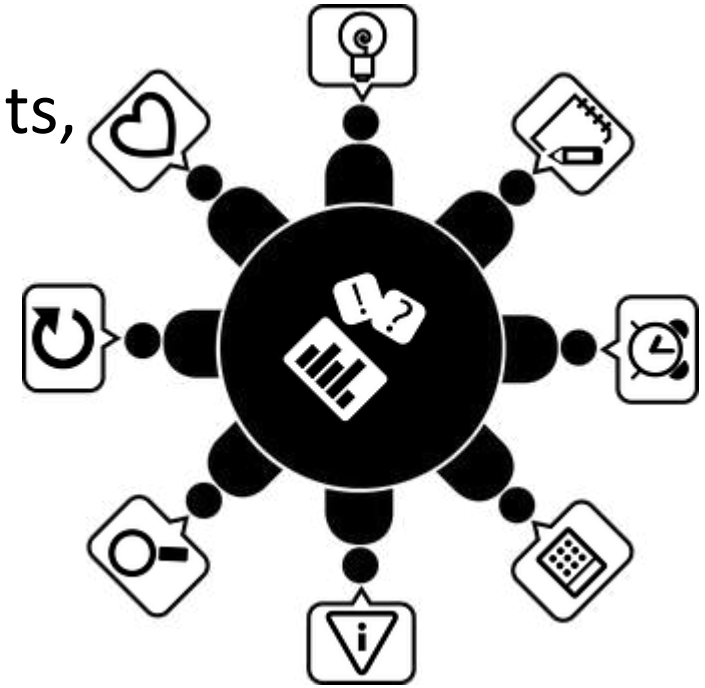
CEC Commitment

- **Attendance**: members are encouraged to attend all sessions
- **Waste Data Collection and Reporting** - reporting template will be shared with members to collect waste generation and diversion data on an annual basis
- **Respect + Participation**: Members will respect each other during consortium meetings and actively participate in collaborative exercises and discussions
- **Confidentiality** :Members will respect the confidentiality of information shared by all participating members, hosts, and experts
- **Onsite Sessions**: Members will respect the safety and security requirements of the hosting business/facility

Code of Conduct

- Code of Conduct shared for review and comments, to be returned by April 7, 2022
- Final version will be shared for sign off

- Student /Researcher Code of Conduct



Schedule

Session	Topic	Month/Date	Type/hours
Launch	Launch of consortium	March 29, 2022	Virtual, 1.5 hr.
Virtual Education Session 1	Waste Audits and Waste Reduction Planning	April 13, 2022	Virtual, 1 hr.
Half-day session 1 with Roundtable and facility tour	Theme -Best Practices in facility waste reduction and diversion in compliance with COVID 19 policy of TRCA & CEC members	May 2022	In person, 3.5 hrs.
Half-day session 2 with Roundtable and Facility Tour	Theme -Best Practices in facility waste reduction and diversion in compliance with COVID 19 policy of TRCA & CEC members	June 2022	In person, 3.5 hrs.
Virtual Education Session 2	Change management /Behavioural change	July 2022	Virtual, 1 hr.
Check in	Mid-year feedback	August -September 2022	Online/ one on one meeting
Virtual Education Session 3	Waste reduction (Circular Procurement) OR Compliance and demystifying legislation and regulations requirements for waste	August 2022	Virtual, 1 hr.
Virtual Roundtable 1	Facilitated discussions on specific experiences, achievements, challenges, solutions, and collective project ideas	September 2022	Virtual, 1 hr.
Half-day session 3 with Roundtable and Facility Tour	Theme - Best Practices in Waste diversion (extending end of life/recycling) in compliance with COVID 19 policy of TRCA & CEC members	October 2022	In person, 3.5 hrs.
Virtual Education Session 4	Measurement and reporting OR Compliance and demystifying legislation and regulations requirements for waste	November 2022	Virtual, 1 hr.
Virtual Roundtable 2	Facilitated discussions on specific experiences, achievements, challenges, solutions, and collective project ideas	February 2023	Virtual, 1 hr.
Virtual / In-Person Roundtable 3	Celebration and next steps – member presentations on successes over the past year / plans for the next year and facilitated member roundtable on collective projects	March 2023	Virtual/in person, 1.5 hrs.
Feedback	Annual feedback	March 2023	Online/ one on one meeting

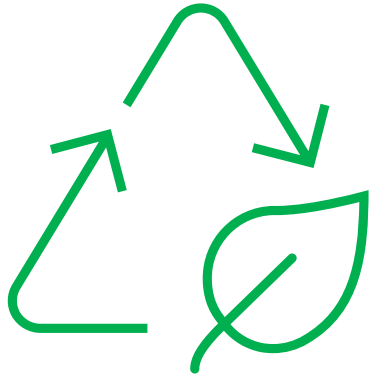
CEC Founding Member Survey Results

Top 3 waste reduction and diversion programming priorities over the next 3 years

1. Employee engagement (75%)

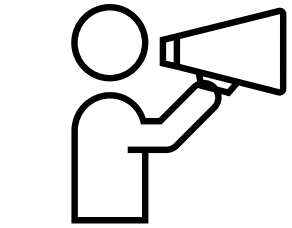
2. Waste prevention and diversion (75%)

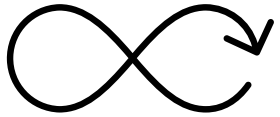
3. Waste strategy development (33%)

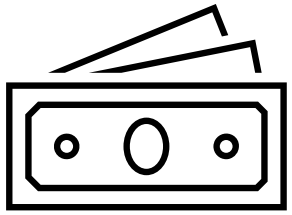


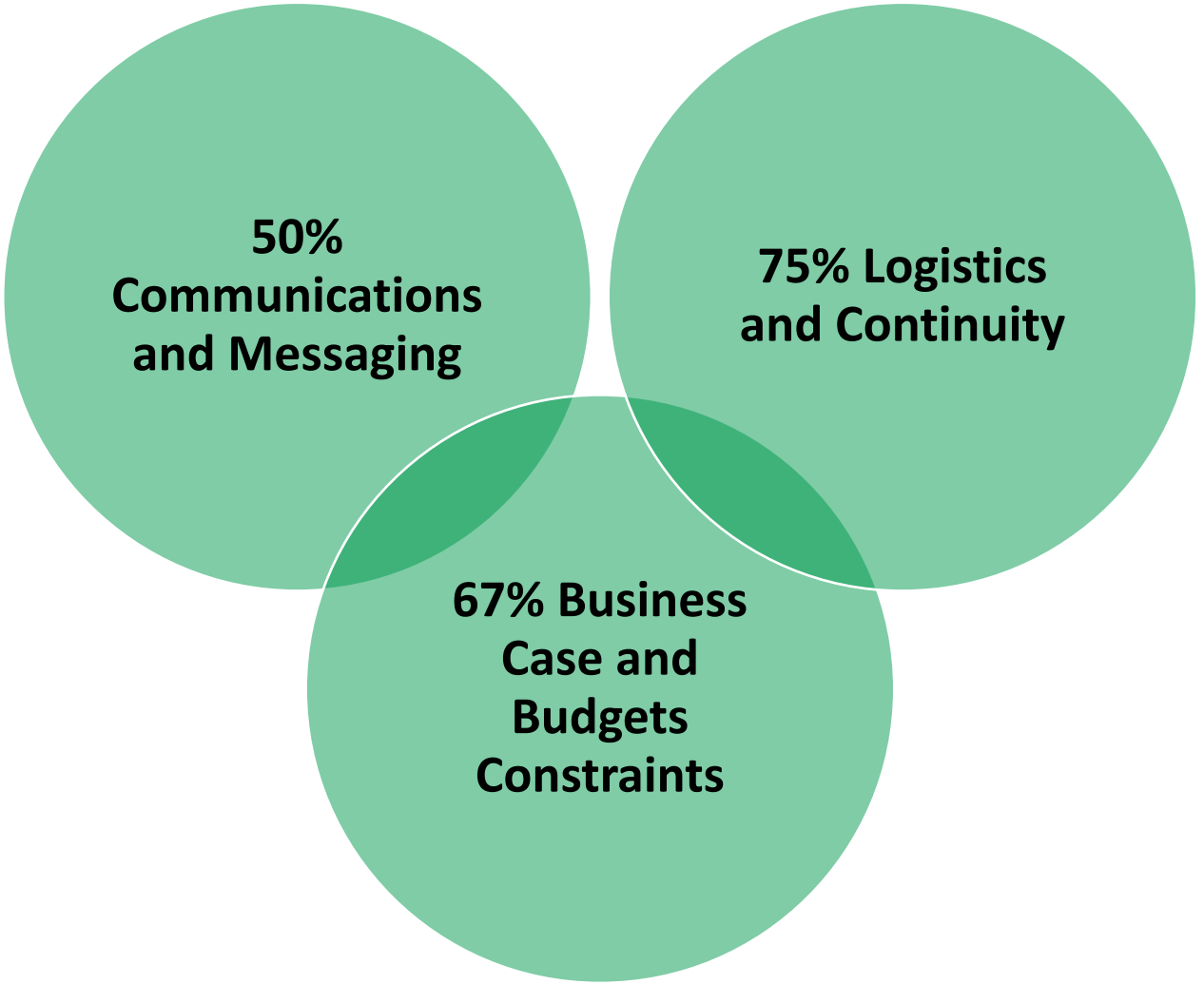
Showcasing waste reduction and diversion best practices

Key challenges with waste reduction and diversion









GHG Tracking & Reporting

- Most (88%) of Founding Members track and report on **Scope 3 emissions** and collect **general waste data**

- About half (50%) of Founding Members are tracking **GHG emissions** from waste, but not all report

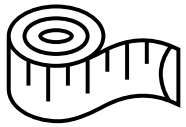
- **Opportunity:** consistent methodology and reporting

High importance topics of interest

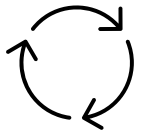
Behaviour change and management

Compliance with waste legislation requirements

Measurement and reporting



Circular procurement



Other areas of interest & learning objectives

PPE recycling

Managing assets at end of life

Bin sensor technology

Waste auditing methods and technology

Ontario Blue Box Producer Responsibility

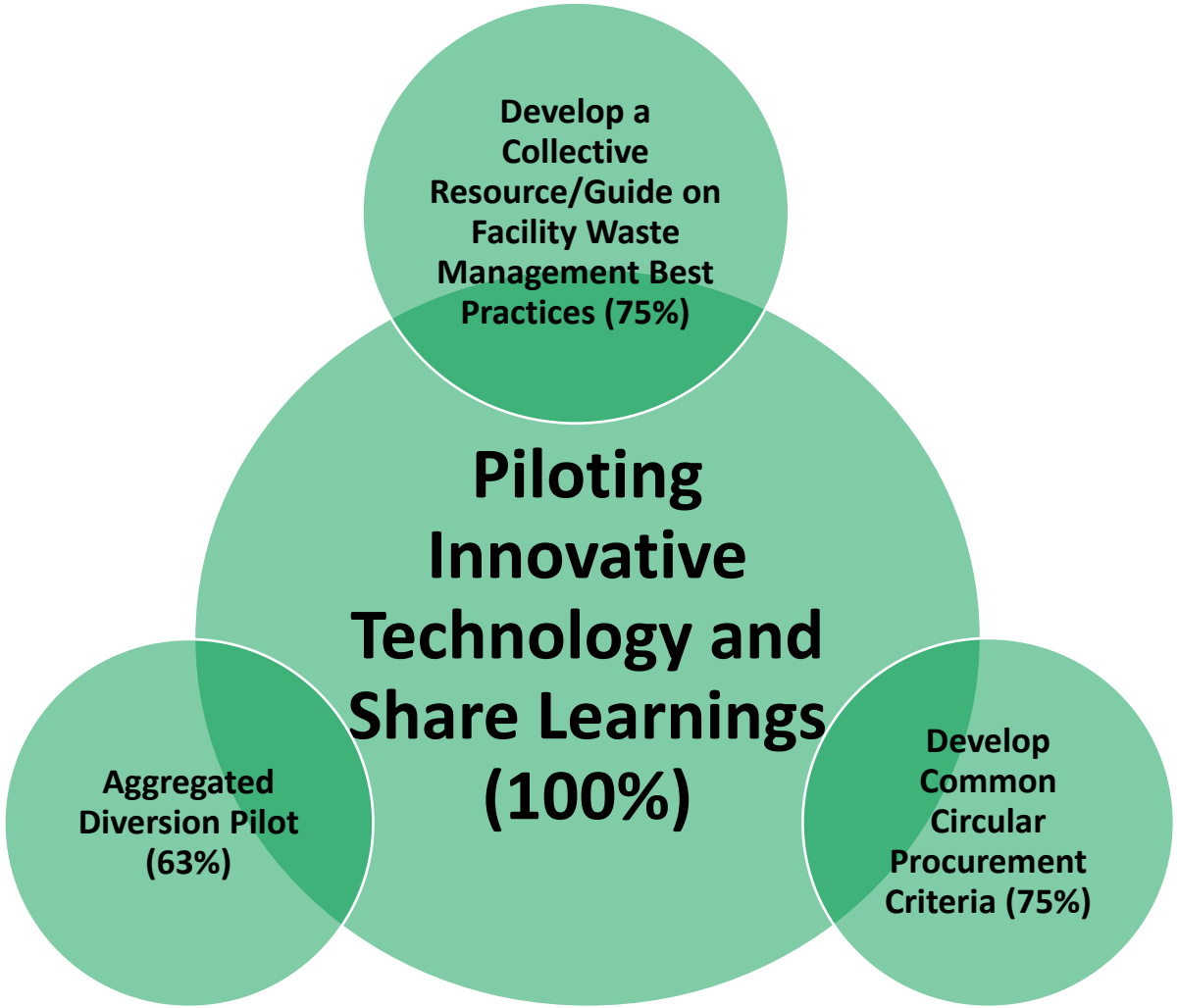
Available grants and non-profit collaboration

Organics management

Waste-to-fuel

Targeted reduction & diversion programs by material type

Collective Projects



Roundtable

Roundtable

- Name , Title, Organization
- Any waste reduction and diversion best practices implemented
- Any technology or practice you are looking forward to learning

Next Session

Virtual Education Session 1 :

Facility Waste Management and Reduction Plan

Date: Wednesday, April 13, 2022 Time:
1:00 -2:00 pm

Speaker: Pragmatech Waste Solutions Ltd.

Powered by Purpose: Investing in our Planet's Future

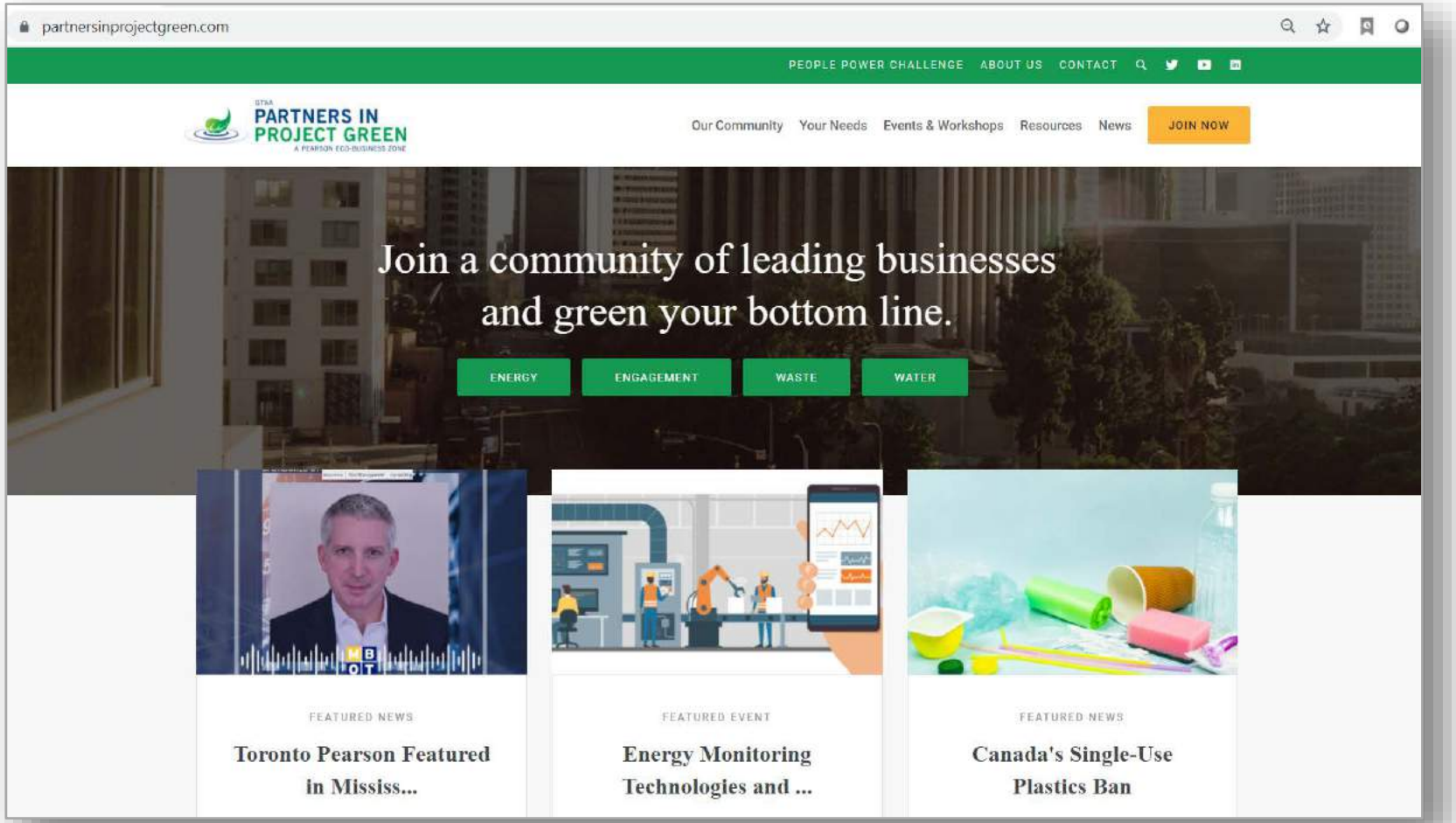
Date: Thursday April 22
Time: 1:00 – 2:00 PM

In honour of Earth Day, PPG invites you to a fireside chat with Ka-Hay Law, Investment Director, TELUS. Ka-Hay will share TELUS journey to creating a more sustainable future and investing in innovative programs and sustainable business practices.

We will learn about the story of the Pollinator Fund for Good - an investment program targeting responsible startups driving social and environmental change to make the world a better place.

Register at partnersinprojectgreen.com/events

Stay connected



@TRCA_HQ

Toronto and Region Conservation Authority

Toronto and Region Conservation Authority

Chaya Chengappa, Program Manager

Partners in Project Green

☎ 416-661-6600 ext. 6466

✉ Chaya.Chengappa@trca.ca

www.partnersinprojectgreen.com

GTAA

PARTNERS IN PROJECT GREEN

A PEARSON ECO-BUSINESS ZONE

@TRCA_HQ