Advancing the Circular Economy Through Procurement

*From Price Taker to Market Mover*
About Recycling Council of Ontario

• Established in 1978: focus on solid waste

• Instrumental in facilitating partnership between government and municipalities to create the Blue Box program

• Unique membership: spans entire value and supply chains
  • government, industry producers, sellers, collectors, processors, educators, academia, researchers

• Work co-operatively with fellow recycling councils / other provincial sister organizations

• Policy and Advocacy / Education & Research & Resources / Facilitation Between Stakeholders / Programs
Why Procurement?

• Delivers on multitude of public policy outcomes: economic, environment, social
• Effective market transition tool: *Economic incentive rather than punitive regulation*
• Goes beyond recycling, avoidance, reuse, reduction
• Collaborative in nature: *Works with vendors / suppliers to be innovative*
• Effectively applied to products, packaging, and systems
Why Focus on Public Sector?

- Responsible to taxpayers
- Financial and operational transparent
- Significant buying power

- Growing expectations that governments deliver on public policy objectives that may have competing interest:
  - prudent spending
  - competitive processes
  - local business and entrepreneur support
  - embrace marginalized populations
  - promote and encourage innovation
  - reduce greenhouse gas emissions and waste
What is the Circular Economy?
Making the Transition

Linear

1. Raw materials
2. Production
3. Use
4. Non-recyclable waste

Recycling

1. Raw materials
2. Production
3. Use
4. Recycling
5. Non-recyclable waste

Circular

1. Raw materials
2. Production
3. Use
4. Recycling
5. Non-recyclable waste
Opportunities to Leverage Procurement to Advance the Circular Economy

- Invest in infrastructure
- Encourage recycling
- Improve collection
- Develop markets for recycled material
- Design better products
- Reduce process waste
- Optimize lifecycle through alternative consumption
- Promote reuse

Circular Economy

Collection and processing
Production and purchasing
Consumption and use
Sustainable vs. Circular Procurement
Circular is Not the Same as Sustainable

Linear: sustainability is improved by focusing efficiency within the “take-make-dispose” – model: 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.
Circular Procurement

An approach that recognizes the role that private and public authorities can play in supporting the transition toward a circular economy.

Defined as the process by which private or public authorities purchase works, goods or services that seek to contribute to closed energy and material loops within supply chains, whilst minimising, and in the best case avoiding, negative environmental impacts and waste creation across their whole life-cycle.

As a concept it builds on Sustainable Procurement, adding elements such as closed-loop material use.
Delivers Public Policy Objectives: Simultaneously

Circular Procurement

- Environmental
- Economical
- Social
Benefits

Environmental

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

Social

• Local employment opportunities
• Overcomes barriers to employment
• Gender equity and engage marginalized communities
• Fosters unique public and private partnerships

Economic

• Local employment opportunities
• Innovation is stimulated
• Improved fiscal responsibility and economic growth
• Avoidance of purchase or maintenance
• Savings on disposal and management
Multiple Policy Objectives

Drivers
- Environmental
  - Carbon, conservation, waste, raw materials, emissions, energy efficiency
  - Manufacturing & consumption
    - Process efficiency, consumption patterns
- Economic
  - Cost savings, growth
- Social
  - Employment, skills, civil society
- Health
  - Toxicity, risk, well-being, quality of life

Categories
- Textiles & clothing
- Electrical & ICT
- Furniture
- Food
- Construction
- Transport
- Packaging

Strategies
- Sustainable materials management
- Waste prevention
- Design & materials choice
- Utilisation & lifetime optimisation
- Repair, reuse & remanufacturing
- Recycling & end-of-life
- Business
  - Cost reduction
  - Servicisation
- Value networks
- Collaborative

Circular business models

Slide credit: Mervyn Jones

Recycling Council of Ontario
Public Procurement and Circular Economy: Early Adopters

Glasgow:
Circular Glasgow 2016
Public Procurement and Circular Economy: Early Adopters

London:

Circular Economy Roadmap 2017
Public Procurement and Circular Economy: Early Adopters

Amsterdam:
Developing a Roadmap for the First Circular City, 2016
Public Procurement and Circular Economy: Early Adopters

Rotterdam:
Circular Economy Roadmap, 2016
Public Procurement and Circular Economy: Early Adopters

Copenhagen:
Circular Cities: the Copenhagen Model, 2017
Public Procurement and Circular Economy: Early Adopters

Helsinki:
Finnish Roadmap to a Circular Economy: 2016-2025
Public Procurement Opportunity in Canada

• **15%**: average percentage of a country’s GDP spent on procurement
• **$200 billion**: Canada’s spend on procurement
• **$160 billion**: local governments combined spend
• **$6 billion**: Government of Ontario spend
  • **20%**: percentage of annual provincial economic outlook
• **$3.5 billion**: Ministries’ spend on goods and services:
  • consulting, courier services, office supplies and furniture, wireless devices.
• **$2 billion**: City of Toronto spend on goods and services
Circular Business Models

System Level
- Product Service Systems
- Public Private Partnerships
- Cooperation with other organisations on sharing and reusing
- Rent/lease
- Supplier take-back-systems incl. reuse/recycling/refurbishment/remanufacturing

Supplier Level
- Supplier take-back-systems
- Design to disassembly
- Reparability of standard products
- External reuse/sale of products - Buy-resell
- Internal reuse of products

Product Level
- Materials in the product can be identified
- Product can be disassembled after use
- Recyclable materials
- Ressourceefficiency and Total Cost of Ownership
- Recycled material

Image from SPPRegions.eu Best Practices Report
Public Health Wales Office Space

CASE STUDY
Public Health Wales

Procured office design and furniture supply to encourage:
  • Reuse of existing equipment, furniture, and flooring as possible
  • Supply of remanufactured goods from other sources

Supplier ‘open day’ communicated key specifications

Winning consortium, which included social enterprises, supplied > 2,500 items:
  • 6 per cent new
  • 94 per cent remanufactured or refurbished
  • significant share reused from existing stock

Results
  • Diverted 41 tonnes of waste from landfill
  • CO2 savings of 134 tonnes
  • Permanent employment for those with barriers
Ministry of Defence Textiles

CASE STUDY
Dutch Ministry of Defence

Market research showed recycled textiles content viable

Reformulated tender requirements to enable bids for solutions and stimulated market to add more recycled content

Technical specifications:
• Towels and overalls must contain 10% recycled post-consumer cellulose fibres
• Suppliers required to demonstrate this through microscopic testing
• Fibres had to come from post-consumer textile material, as opposed to production waste or other alternative sources

Results:
• 100,000 towels contained 36% recycled post-consumer textiles
• Overalls contained 14% recycled post-consumer textiles fibres
• Estimated savings:
  • 233,478,000 litres of water
  • 68,880 kg CO2 emissions
  • 23,520 MJ of energy consumption
Odense Municipality
Construction

CASE STUDY
Odense Municipality

40 new residences for youths with disabilities

Reconsidered tender requirements:
• Construction using fewer unwanted chemicals
• Alternative materials such as paper wool for insulation, recycled bricks
• Energy efficient solutions, including LED lighting and solar water heating.

Results:
• Construction cost 5% higher than business-as-usual
• Extra investment will be repaid quickly due to lower operating costs.
Municipality of Rome
Food and Catering

CASE STUDY
Municipality of Rome

More than 144,000 meals are served daily across 550 nurseries, primary and secondary schools

92% of meals prepared on site

Technical specifications and criteria:
- Non-food and food waste separated for collection
- Detergents and sanitizers with low environmental impact to be used
- Single-use material (e.g. napkins) must be biodegradable and recyclable
- Ceramic plates and tableware, glass, stainless steel for cutlery
- Recipes and menu planning based on local season availability
- Meat served twice weekly (maximum) to reduce environmental impacts

Results:
- Savings of 8,887 tonnes of CO2 equivalents annually
- Savings in water consumption associated with the reduced consumption of meat are estimated at 5,783 m3 annually
- Switch from single-use to reusable cutlery: 1,800 tonnes less plastic annually
Public Procurement and Circular Economy: Early Adopters
Circular Procurement Pilot

Sept 2019: Toronto’s Dufferin Organics Processing Facility

- Infrastructure management plan to construct new office building near recycling plant for 2022
- Four storeys built from the ground up with $20 million budget
- Committed to integrate circular principles into contract.
- Contract design awarded to AECOM
  - Pre-advised of additional/different requirements aimed at circular procurement
- RCO will play advisory role alongside global circular procurement experts to support project.
- City staff agreed to profile the project along its journey as a special case study
Circular Procurement Summit  June 11 - 13, 2019

Advancing the Circular Economy Through Public Sector Purchasing
Planning Partners

- HP
- UN Environment
- Government of the Netherlands
- Sustainable Global Resources Ltd.
- SCMA
- Ontario Public Buyers Association
- FCM
- Region of Peel
- Toronto
Objectives

- Enhance greater awareness of the circular economy
- Verify the importance of procurement and its use to advance the circular economy
- Quantify the important role of both the public to move from price taker to market shifter
- Showcase best practice in circular procurement from around the globe
- Emphasize and quantify the global benefits of circular procurement economic, social, and environmental
- Identify barriers — perceived or real — to shifting to circular procurement: legal agreements, sole source bids, RFPs, commercial agreements, and relationships
- Introduce key performance indicators and measurement strategies
- Highlight examples case studies in top 5 category spends in public sector
Key Takeaways

• Participation levels demonstrate strong and growing interest in the circular economy and its benefits
• Better understanding of circular procurement as a mechanism – particularly in the public sector – to advance it
• Interest in all parts of the country at all size/level of governments
• Circular business models and products are trying to get the attention of buyers
• Procurement is one of the most important but underutilized tools by government

however…
Key Takeaways

- No connectivity between procurement driving broader public policy goals
- General misnomer that integrating broad policy objectives through procurement will be at a cost?
- Procurement functions are not meaningfully connected nor supported to more effectively integrate circular procurement requirements: Finance / Procurement / Legal / Sustainability
- Strong demand for support to improve knowledge and move from concepts to implementation
What We Heard

- Canadian governments recognize opportunity to leverage buying power to shift markets to foster a circular economy.
- Substantial appetite of public buyers and their suppliers to improve and expand collective understanding of circular economic principles.
- Overwhelming need for:
  - roadmap to integration in a meaningful and measurable manner
  - resources and tools to build capacity and support effective integration
  - co-ordinated approach to standardize the suite of existing provincial and regional procurement efforts
  - national standard that supports effective implementation and knowledge sharing; reduces risk of inconsistent application and failed implementation
What’s Next?

- Open-source: develop knowledge resources and tools aimed at public sector
- Partner with municipalities across the country selecting case study projects
- Workshops to expand knowledge and support implementation
World Circular Economy Forum

Go Canada!

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