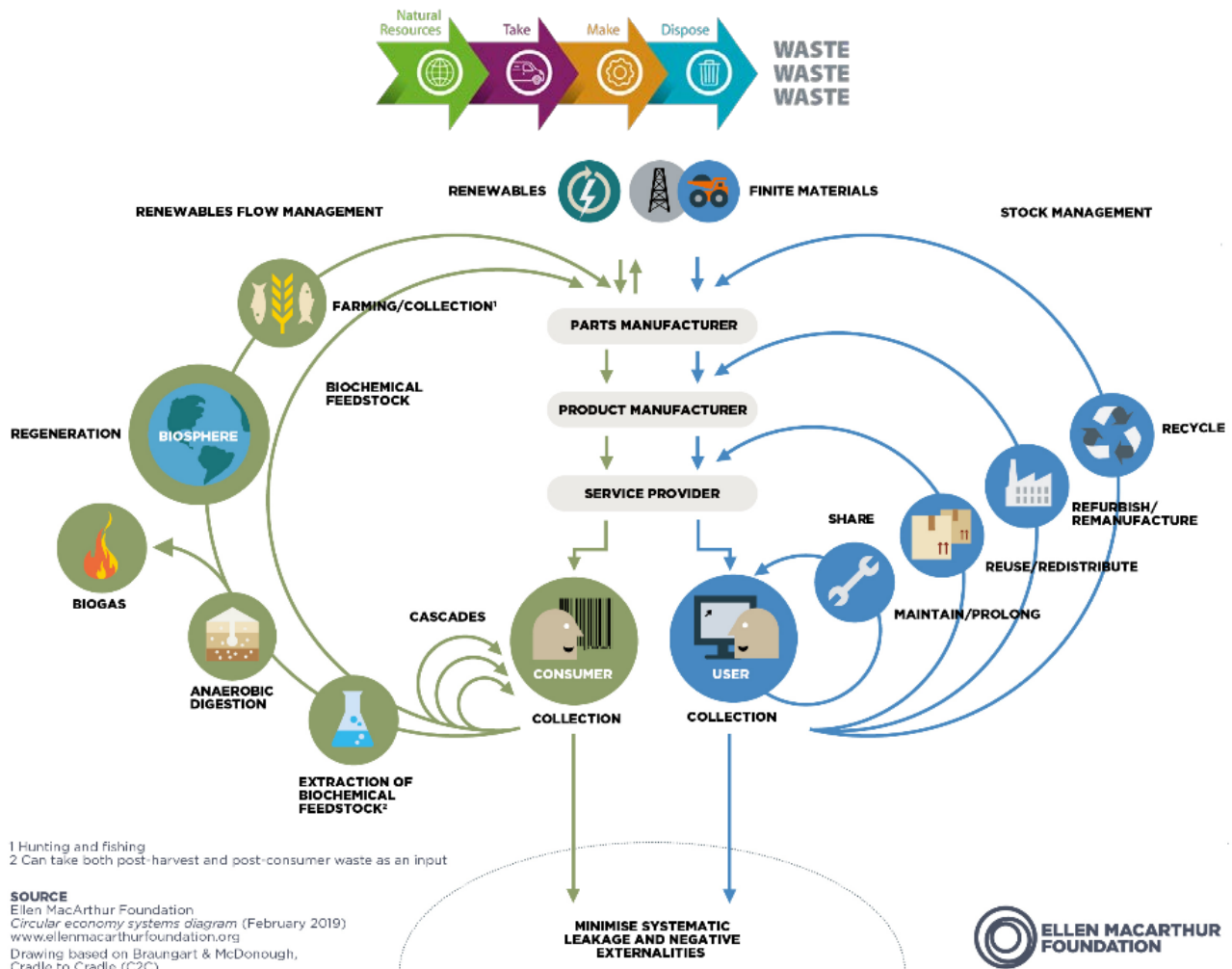


Guelph and the Circular Economy



1. Background

The circular economy offers an alternative way to the linear 'take-make-dispose' economy that harms the environment and people. It seeks to extract the maximum value from resources in use and keeps materials in circulation for as long as possible. This entails prioritising regenerative resources through strategies such as maintenance, sharing, reusing, redistribution, remanufacturing, recycling or recovery.



The Ellen MacArthur Foundation, a world renowned organization and leader in Circular Economy, defines the circular economy as an economy that decouples economic activity from the consumption of finite resources. Products, components, and materials are kept at their highest use and value, waste is designed out of the system, and natural ecosystems are restored over time.

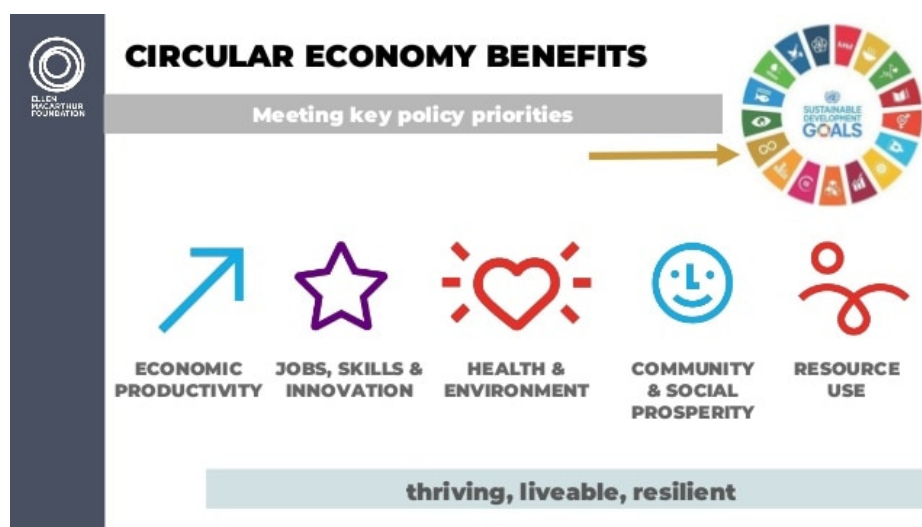
The circular economy is strongly embedded in local economies. The transition to a circular economy requires the innovative entrepreneurship and strong network connections that Guelph can incubate with its density and diversity of stakeholders and resources.

Cities are well poised to serve as catalysts, enablers and leaders in the circular economy as they possess a unique complement of leverage points. Cities contain a level of resource flows that can generate economies of scale to advance circular economic activities; directly interface with community stakeholders and other levels of government, provide key services, and have access to legal tools to influence activities and behaviours in the community.

Many cities are realizing that circularity can be a route to support economic stability, resource security and address environmental concerns and, can help achieve significant resource efficiency and carbon reductions.

Similar to Guelph's Strategic Plan and vision of an inclusive, connected, prosperous city where we look after each other and our environment, a circular economy aligns with our priorities of powering, sustaining and building our future. Transition to a circular economy would provide Guelph opportunities to:

- enhance social and environmental outcomes;
- improve economic performance and profitability;
- decrease the risk associated with relying on external sources of raw materials and labour; and,
- increase the resiliency of City services and infrastructure.



2. Framework for a Circular Economy

Developing a comprehensive framework to guide the City of Guelph towards a circular economy is key. In alignment with the Ellen MacArthur Foundation's approach, this framework for change could include the following policy levers:

1. **Vision (Roadmaps & Strategies)** - Vision can provide overarching direction for a city. Engaging stakeholders in the development of a roadmap can also strengthen its effectiveness and a sense of shared ownership.
2. **Engagement (Convening & Partnering, Awareness Raising, Capacity Building)** - City governments have a unique ability to engage with multiple stakeholders from across sectors and catalyse action. This is key to the emergence in cities of circular economy opportunities which require understanding, collaboration, and action within and between sectors.
3. **Urban Management (Urban Planning, Asset Management, Public Procurement)** - City governments have a strong influence over the physical development of a city, the management of its assets, and the procurement of public goods and services.
4. **Economic Incentives (Financial Support, Fiscal Measures)** - City governments can use financial support to help foster innovation and new markets, whilst fiscal measures such as taxes, penalties, and charges, can help incentivize or discourage behaviours.
5. **Regulation (Legislation & Regulation)** - Legislation and regulation is a core domain of government and can play an important role in shaping markets, influencing behaviour, and removing barriers that inhibit progress.

URBAN POLICY LEVERS FOR CIRCULAR ECONOMY TRANSITIONS



VISION



ENGAGEMENT



**URBAN
MANAGEMENT**



**ECONOMIC
INCENTIVES**



REGULATION



**ROADMAPS AND
STRATEGIES**



**CONVENING
AND
PARTNERING**



**URBAN
PLANNING**



**FINANCIAL
SUPPORT**



**LEGISLATION
AND
REGULATION**



**AWARENESS
RAISING**



**ASSET
MANAGEMENT**



**FISCAL
MEASURES**



**CAPACITY
BUILDING**



**PUBLIC
PROCUREMENT**



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3. Urban Policy Levers for Circular Economy Transitions

A circular economy needs the support of the entire corporation. The following departments have been initially identified to support the policy levers for circular economy transitions.

Vision	Engagement	Urban Management	Economic Incentives	Regulation
Environmental Services	Environmental Services	Environmental Services	Environmental Services	Environmental Services
Economic Development & Tourism	Economic Development & Tourism	Planning	Economic Development & Tourism	Planning
Our Food Future	Our Food Future	Engineering and Transportation Services	Innovation Guelph	Zoning
and others	Communications	Facilities	Finance	Building
	Innovation Guelph	Finance		Security and Bylaw

4. Cities are Key to Going Circular

The current linear ‘take-make-dispose’ pattern, in which resources are extracted, made into products that are used for a short period of time, and then disposed – pays insufficient attention to the high social, environmental, and economic costs of waste. In contrast, a circular economy system of production is based on principles of product longevity, renewability, resource use minimizations, reuse, and repair.

A circular economy approach to service delivery challenges the City to rethink how it can provide services to residents based on three core principles:

1. We can find new ways to deliver our services, purchase materials that we need to do our work, and enter into contracts with service providers in a way that reduces our reliance on non-renewable resources and minimizes our carbon footprint.
2. Once any resource is in use, we can find ways to collaborate with others or ask the marketplace and industry to work on opportunities to extend resource lifecycles to ensure maximum useful potential (think reduce, share, repair, reuse, recycle and energy recovery).
3. We can continue looking for ways to redesign our systems and service delivery in order to reduce any waste or inefficiency through a combination of research, collaboration, innovation, prototyping and pilot projects.

5. Challenges and Opportunities



Source: Canadian Circular Cities and Region's (CCRI) Initiative

There are challenges that need to be addressed to enable cities to pursue circularity. These include the need for technical innovation, creating new or redesigning existing infrastructure, understanding and tapping the potential for new business models, managing the shift to more sustainable and fair procurement, as well as developing approaches to motivate citizens to adopt sustainable lifestyles.

There is no standardized methodology for circular city initiatives, but it is important to build from a city's own unique opportunity space. If circular economy approaches are new to the City, it is possible to start simple, with initiatives that do not require new regulations, large investments or complex collaboration. However, with strong support from senior staff and elected officials, a city may choose to initiate a broad based program from the start.

A circular city embeds the principles of a circular economy across all its functions, establishing an urban system that is regenerative, accessible and abundant by design. These cities aim to eliminate the concept of waste, keep assets at their highest value at all times, and are enabled by digital technology. A circular city seeks to generate prosperity, increase liveability, and improve resilience for the city and its citizens while aiming to decouple the creation of value from the consumption of finite resources.

Governments carry the public responsibility to create the boundary conditions for the circular economy to achieve its full potential.