COUNCIL OF THE GREAT LAKES REGION
Solving for Sustainability®

Circular Great Lakes
FORGING A FUTURE WITHOUT WASTE

Circular Economy

What Is a Circular Economy?

It's an economic model that keeps materials and resources in use for as long as possible, reducing waste, maximizing value, and limiting the need to extract virgin materials to create new products.

Unlike our current linear or "take-make-waste" system, where resources are extracted, used once, and then discarded, a circular economy is **restorative and regenerative by design**. It focuses on designing products, materials, and business systems that minimize resource use, extend product lifespans, and ensure that once a product's initial purpose is achieved, it can be reused, repaired, or recycled into new materials and products.

Core Principles:

Design Out Waste & Pollution – Build products to last, be repaired, and be reused.

Keep Products & Materials in Use – First through reuse, then remanufacturing, and finally, once their value has been fully extracted, recycling.

Regenerate Natural Systems – Protect the environment.

Key Goal:

Keep valuable material in use at their highest value for as long as possible, limiting the need to unnecessarily extract virgin material from the environment.

The Problem

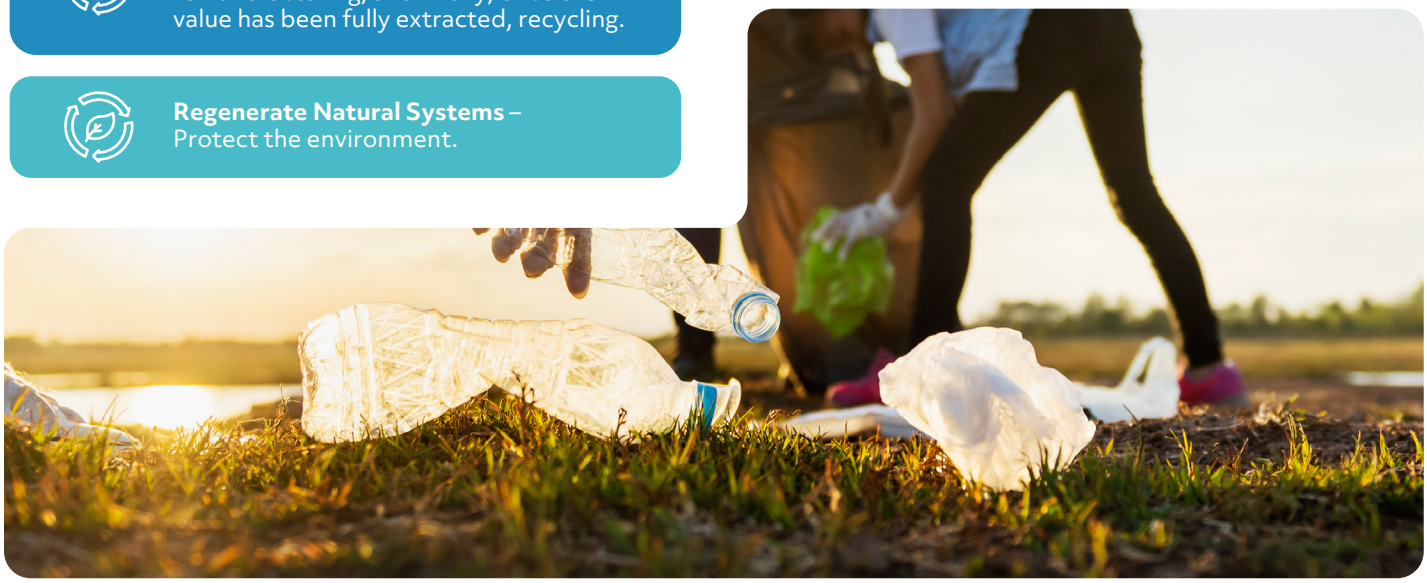
- The current and most common "linear" model we see in society: take → make → waste.
- Plastics often end up in landfills or polluting the environment.

The Circular Solution

- Keep material resources used in products circulating in the economy without leakage or being discarded into the natural environment.
- Utilize the materials and resources already in use and reduce demand for virgin resources.

How We Achieve It

- Reduce consumption where possible.
- Make products with long lasting design in mind.
- Encourage products to be repaired instead of replaced.
- Improve existing recycling systems and create pathways for hard to recycle materials.



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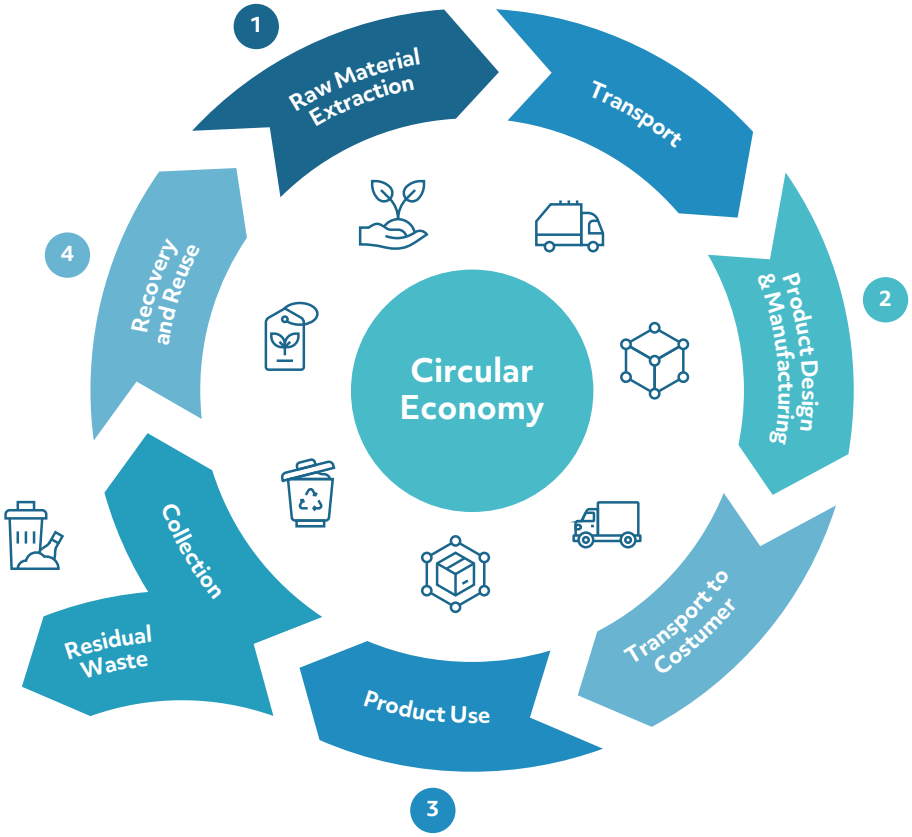
Circular Economy Model

Keep valuable material in use at their highest value for as long as possible, limiting the need to unnecessarily extract virgin material from the environment.

Linear Economy

1. Take
2. Make
3. Use
4. Waste



Why It Matters

For the Environment

A circular economy has the potential to:
- Conserve natural resources
- Lower GHG emissions and water consumption from manufacturing
- Reduce material pollution, waste, and litter

For Society

- Job creation in repair, recycling, and innovation
- Healthier communities
- Less disrupted ecosystems

For the Economy

- New business opportunities and markets
- Cost savings through resource efficiency
- More resilient supply chains

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Circular Economy & Sustainable Materials Management (SMM)

Circular Economy

Focuses on eliminating waste and maximizing resource value through the smart design of products, reducing unnecessary material use, innovative reuse and repurposing, and modernization of existing recycling systems.

SMM

- New business opportunities and markets
- Cost savings through resource efficiency
- More resilient supply chains

Collectively They

- Aim to reduce environmental impact, minimize resource consumption, and eliminate unnecessary waste.
- Are complementary but may conflict: Circular Economy principles focus on closing the loop of a specific material, whereas SMM looks at full environmental impacts. Sustainable Materials Management practices focus on reducing waste and environmental impact overall, placing less emphasis on recycling.

How Can We Implement Circular Economy Principles?

Embed Circular Principles in Your Organization's Procurement – Prioritize products and services designed for durability, repair, reuse, and recyclability.

Invest in Collection & Recycling Infrastructure – Strengthen systems that support efficient material recovery and reuse. Invest in improving infrastructure for material collection and recycling.

Develop Supportive Legislation & Policy Frameworks – Create laws, regulations, and organizational policies that embed circular economy principles in your jurisdiction.

Implement Effective Policy Tools – Examples include Bottle Bills, Extended Producer Responsibility (EPR), product design standards, procurement policies, and consumer education.

Incentivize Circular Business Models – Reward companies that reduce demand for virgin materials and adopt reuse or remanufacturing practices.

Encourage Innovation & Collaboration – Foster partnerships among governments, industry, and communities to scale circular solutions.