

CIRCULAR CITIES

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WHAT IS LINEAR ECONOMY?

The traditional economic development model.



<https://wealthmanagement.bnpparibas/asia/en/expert-voices/the-circular-economy---a-new-economic-paradigm.html>

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DISADVANTAGES OF LINEAR ECONOMY

- Volatility of resource prices
- Interruptions in raw material supplies
- Depletion or exhaustion of natural systems and reserves
- Increased regulation
- Increase in economic costs due to waste management and treatment
- Air, water, land, noise pollution
- New extraction/production leads to additional GHG emissions

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CIRCULAR ECONOMY – A NEW PARADIGM FOR A SUSTAINABLE AND RESILIENT FUTURE

- A systemic approach of producing and using goods and services to:
 - minimize new resource extraction, protect finite resources
 - minimize waste and pollution
 - design sustainable business models, products, services
 - restore and regenerate natural environment
 - create new sources of value
- Not a waste-management framework

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WHY THE **WORLDWIDE** INTEREST

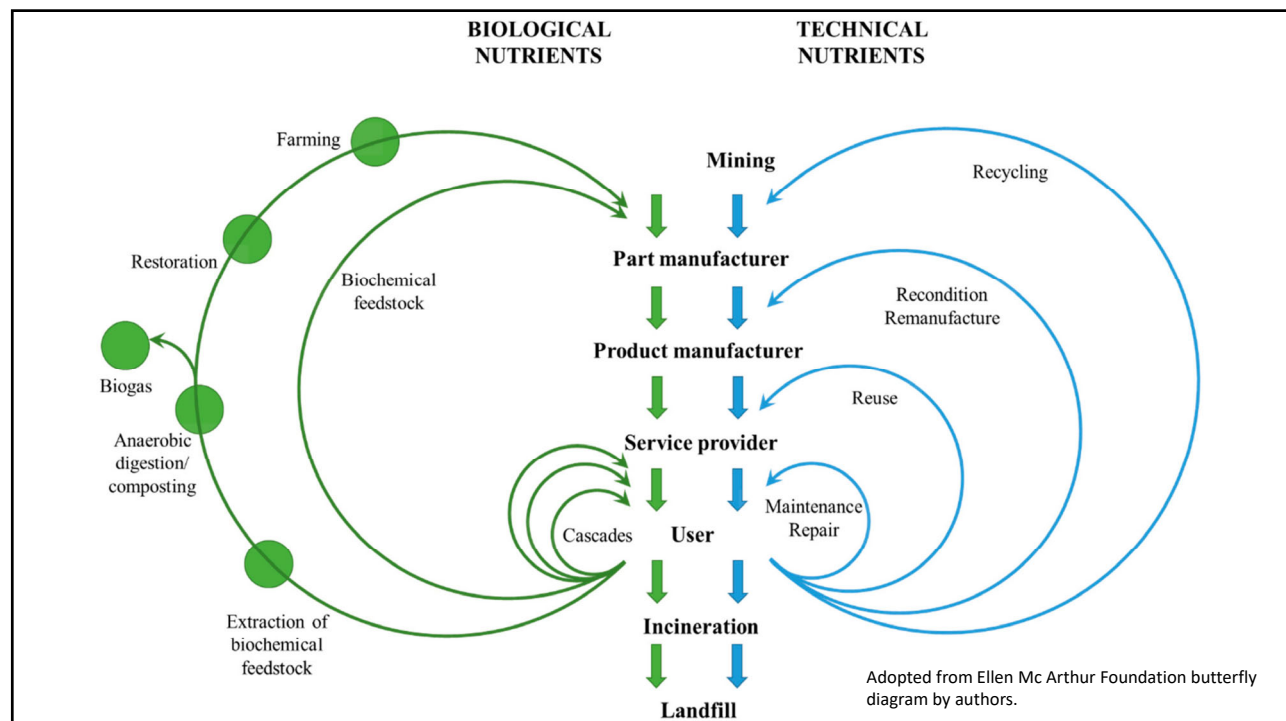
Development of new technologies,
Innovation

Evolution of new forms of collaboration and business models

Entrepreneurship

Great potential in generating new employment and creating opportunities for skills development.

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CIRCULAR CITIES

- Regenerative, self-sustaining, eliminate concept of waste
- Always keep assets at their highest utility
- Newly harvested building materials kept minimum
- Seek recyclable and adaptable infrastructure
- Encourage re-use & recycling behaviors , sustainable consumption
- Support collaborative sharing culture
- Utilize digital tech and big data to monitor resource flows
- Green & blue infrastructures
- Renewable energy
- Regenerate natural systems

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ROLE OF THE PUBLIC SECTOR

Make available the necessary infrastructure

Formulate policies and regulations that incentivize innovation including circular public procurement efforts without imposing burdens that dampen growth

Accept a role to support collaboration among all potential stakeholders

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EXAMPLES: CHARLOTTE

Made a commitment to adopt the circular economy as a public sector strategy

- Launching a communications strategy and developing the Innovation Barn as the city's local circular economy showcase and innovation center
- Building Circular Charlotte's international profile
- Creating circular economy programs for the city and securing long-term staffing and financing
- Building circular infrastructure and resources
- Establishing the basis for data collection and performance monitoring

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EXAMPLES: Austin, Michigan, Tennessee, Ontario, Washington, Ohio

MEMBERS OF *MATERIALS MARKETPLACE* PLATFORM

- A collaborative network of businesses, organizations and entrepreneurs where one organization's hard-to-recycle waste and by-products becomes another organization's raw material. In addition to diverting waste from landfills, these recovery activities generate significant cost savings, energy savings, and create new jobs and business opportunities.
- A unique connection to resources to explore new business opportunities in the reuse and recycling space

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EXAMPLES: COPENHAGEN, DENMARK

Copenhagen's ambitious Waste and Resource Management plan, called "Circular Copenhagen", has three overall targets:

- 70 % recycling of **Municipal Solid Waste (MSW)** by 2024
- **Tripling reuse rate** in 2024 from 2018 levels
- CO2 reduction of **59.000 tonnes**
- The third target also contributes to Copenhagen's Climate Action Plan, and the city's aim to be the world's first carbon neutral capital by 2025.

<https://circularcitiesdeclaration.eu/cities/copenhagen>

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EUROPEAN COMMISSION

EUROPEAN GREEN DEAL: CIRCULAR ECONOMY ACTION PLAN (3/20)

Objectives: Implement 35 actions

- Make sustainable products the norm in the EU
- Empower consumers and public buyers
- Focus on the sectors that use most resources and where the potential for circularity is high such as: electronics and ICT, batteries and vehicles, packaging, plastics, textiles, construction and buildings, food, water and nutrients
- Ensure less waste
- Make circularity work for people, regions and cities
- Lead global efforts on circular economy

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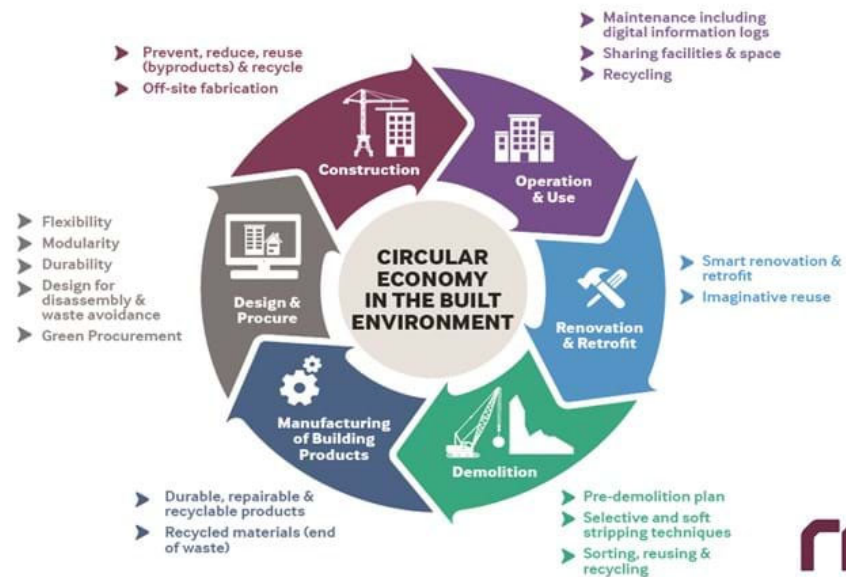
INDUSTRY: HOSPITALITY

• Value Creation Opportunities in Operations & Supply Chain

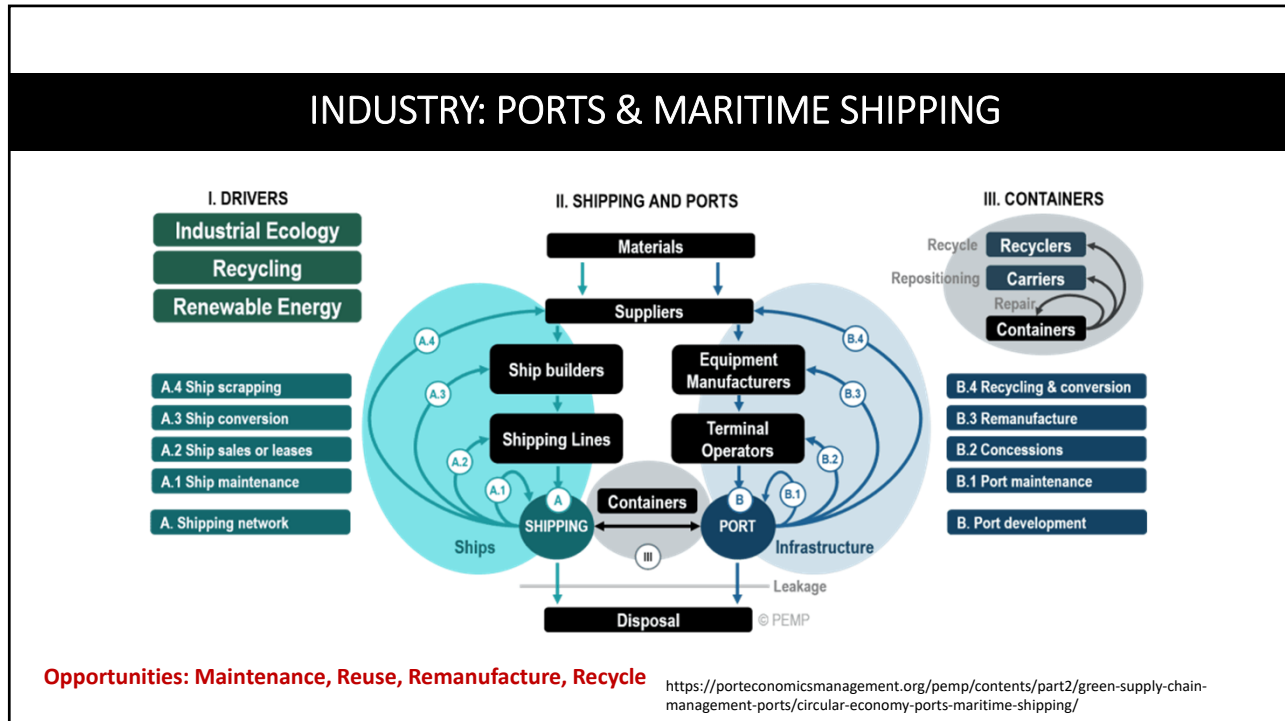
- Energy consumption management
- Reducing waste management costs
- Food waste reduction and re-circulation
- Focusing on local food sourcing
- Reducing food and beverage transport, GHG

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INDUSTRY: BUILT ENVIRONMENT



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