

# Reporting Sustainability: Zero Waste, Cradle-to-Cradle, and Life Cycle Assessment

Kentucky Chapter of Air & Waste Management Association  
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ATTORNEYS

# Benefits of Sustainable Practices

- Internal
  - Achieve financial rewards from process, energy, and materials savings, subsidies, tax incentives
  - Satisfy corporate initiatives and requirements
  - Employee satisfaction
- External
  - Brand reputation and customer good will
  - Command higher prices
  - Positive environmental impact

# Community Goals – Sustain Louisville



- Divert Solid Waste from Landfill
  - 50% by 2025
  - 90% by 2042
- Focus on Residential and Commercial Use (other than industrial)
  - food waste and composting
  - recycling

# Community Goals – Maryland 2014

- Zero Waste Initiatives
  - Source reduction and reuse
  - Recycle
  - Divert organic waste
  - Target specific wastes (e.g., electronics, pharma, containers)
  - Incentives and markets
  - Waste to energy
  - State leadership
  - Educate



## **Zero Waste Maryland**

**Maryland's Plan to Reduce, Reuse and Recycle  
Nearly All Waste Generated in Maryland by 2040**

# Challenges to Proving Success

Deciding what to count



Lack of common standards  
(guidelines, statutes, incentives)

# Risks of Uncertainty

- Making a business mistake
  - Losing money, losing customers
  - Lost capacity for incentives or rebates
- Bad internal or customer relations
  - Disappointment with outcomes
- Liability for inaccurate implementation or claims

# Federal Trade Commission's *Green Guides*

- Purpose is to avoid making environmental marketing claims that are **unfair or deceptive**
- Examples include:
  - Should not make general, unqualified statements about environmental benefit
  - Must have reliable, scientific data to substantiate factual assertions
- Third-party certification does not reduce obligation to substantiate claims

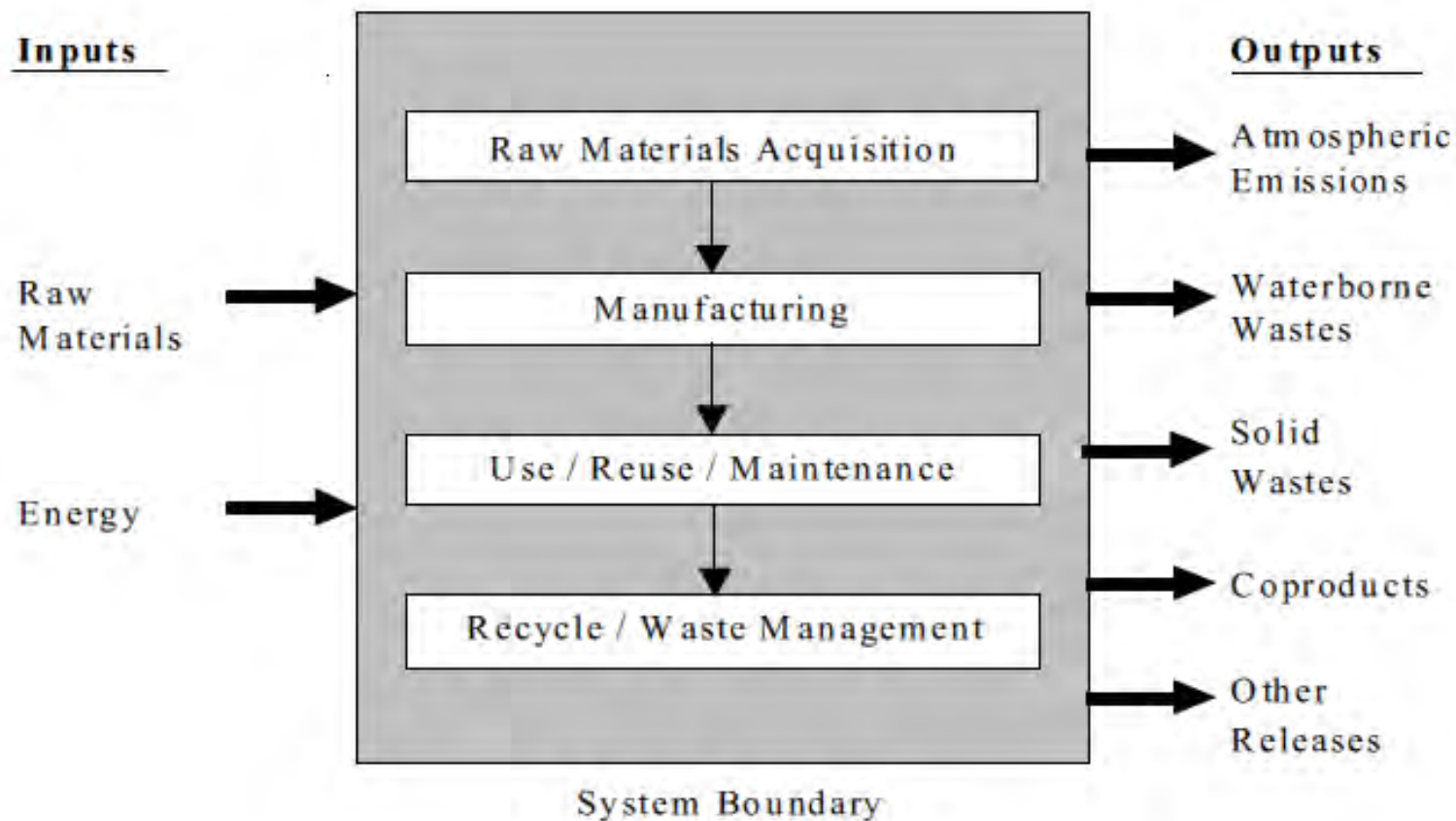
# Lifecycle Assessments or LCA

“The term ‘life cycle’ refers to the major activities in the course of a product’s life-span from its manufacture, use, and maintenance to its final disposal, including the raw material acquisition to manufacture the product.”

– USEPA 2006

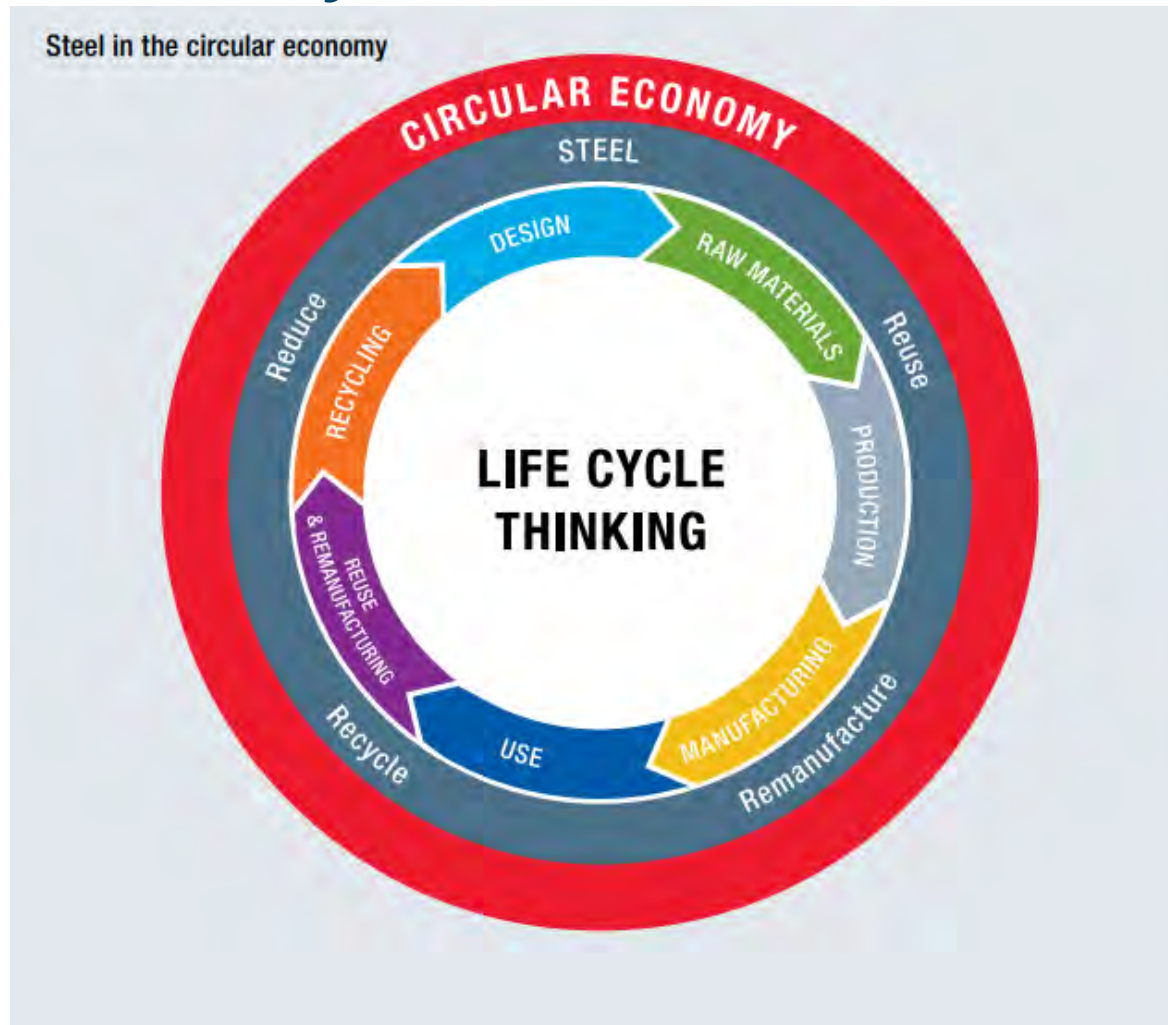


# Life Cycle Assessments or LCA



– USEPA 2006

# Circular Life Cycle Assessments - Steel



# Example Third-Party Reviews

- Cradle to Cradle  
<http://www.c2ccertified.org/get-certified/product-certification>
- Energy Star  
<https://www.energystar.gov/>
- epeat Green Electronics Council  
<http://www.epeat.net/about-epeat/>
- UL  
<http://industries.ul.com/environment/certification/validation-marks/environmental-claim-validation>
- U.S. Zero Waste Business Council  
<https://true.gbci.org>



# Cradle to Cradle



- “a beneficial design approach integrating multiple attributes: safe materials, continuous reclamation and re-use of materials, clean water, renewable energy, and social fairness.”
  - » *Cradle to Cradle Certified Product Standard, Version 3.1, page 1*
- Standards include
  - no banned list chemicals present above thresholds
  - a defined life cycle for product materials
  - self-audit to assess protection of human rights

# UL Environmental Claim Validation

- UL offers three levels of waste validation.
- The validation is intended to provide third-party confirmation that the entity complies with specific guidelines
- UL's Waste Diversion Validation addresses levels of performance such as
  - Landfill Diversion Rate
  - Virtually Zero Waste to Landfill
  - Zero Waste to Landfill



**Questions?**