

Life Cycle Assessment of Single-Use Products

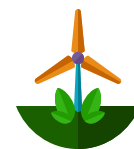
What is Life Cycle Assessment?



Observe products made from different materials



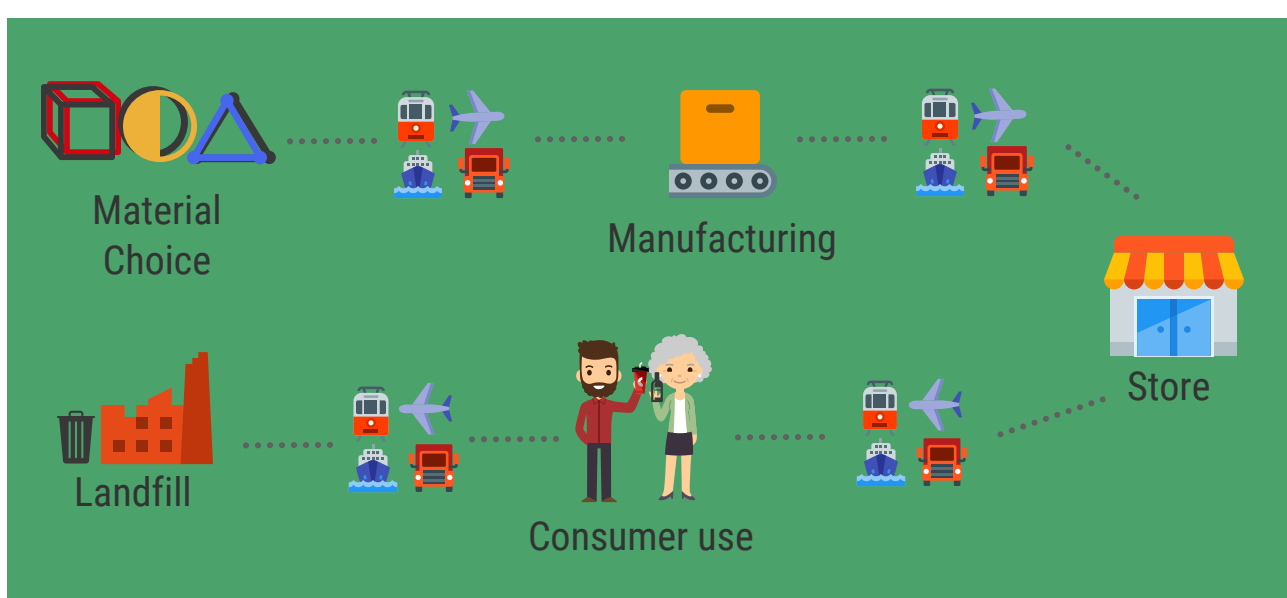
Calculate their energy consumption



Determine Environmental Impact

The Life Cycle of a Product:

Cradle-to-Grave Approach: incorporate energy use from material creation all the way through disposal.



Highest energy consuming life cycle phases:
Raw Material Production and Manufacturing

Transport by plane consumes at least eight times as much energy as ship or train

Project Outline:

1

Step

Data collection on available Life Cycle Assessment research

2

Step

Normalization of data, creation of database

3

Step

Analysis of trends, estimates and comparisons

4

Goal

Create a generalized equation:

This will accelerate the process of analyzing life cycle energy consumption of products in the future

5

Goal

Create a Consumer Tool:

To help consumers to be able to quickly and easily compare different products and see the difference in their effects on the environment

Did you know...

A plastic (polycarbonate) cup has over 27 times the Global Warming Potential as a single use styrofoam cup

Did you know...

Material choice alone can account for up to 98% of the total Global Warming Potential of a product