

Session 2: Defining Goal & Scope

Goal & Scope Definition: Study Goals

- **Intent:** Intended application of the study
 - For what purpose
 - Examples
 - Identifying major problems
 - Selecting the preferred option
- **Context:** For whom and compared to what
- **Output:** How will results be communicated

Why Carry Out a Life-Cycle Assessment?

- Decision-making
 - Product design
 - Process design
 - Purchasing
 - Policy-making
- Communication
 - Eco-labeling
 - Product declarations
 - Benchmarking
- Learning / exploration
 - Identifying improvement opportunities
 - Identify liability concerns
 - Selecting performance indicators
 - Research

Goal & Scope Definition: Study Scope

- Functional Unit (Unit of analysis)
- System boundaries:
 - Conceptual
 - Geographic
 - Time period of study
- Types of impacts to consider
- Required level of detail

Defining the Functional Unit

- Reference flow against which all others are related
 - Establishes a common level of performance across the systems to be considered
- Examples
 - Light bulbs
 - Wallpaper vs. paint
 - Newspapers
 - Bread

Goal & Scope Definition: How far do we go?

- Defining boundaries
 - No theoretical basis for exclusion
 - Often broken at environmental flows or economic flows of + value
 - Generally includes only processes in direct contact with product & raw materials entering that product
- Example: Oil Use
 - Combustion
 - If electricity, consider:
conversion efficiency & transmission eff.
 - Extraction
 - Transport
 - Refining