

# PEER Environmental Technology Seminar

*Oct. 11-12, 2006, Montpellier, France*



Parallel session 1d synthesis

## Environmental impact Assessment

Potential for a consistent frame work with many beneficial applications

# Sustainability Assessment

- ◆ Chair:
  - David Pennington, JRC IES
- ◆ Reporter:
  - Anne Ventura, LCPC, France
- ◆ Speakers:
  - Trine Susanne Jensen, NERI, Denmark
    - Using national economic data for flows between environmental sectors with emissions data and impact factors
      - input-output life cycle analysis
  - Mark Goedkoop, Pré consultants, Netherlands
    - The challenge of modelling LC impacts assessment and presenting results to decision makers in a simple way through e.g. a single indicator or with decision support tools

# Research Needs

## Life Cycle Thinking Tools

- ◆ Need clear guidance what is best tool to answer different questions and limitations.
- ◆ Social science to better communicate results to different audiences, to “sell” life cycle thinking, use indicators in decision making process, ...
- ◆ To improve tools for designers to increase LCT, including social and economic aspects. (something simple but robust, sector specific eco-design tools, noting what’s already ongoing)
- ◆ Include directly in design tools, develop simple guidelines for different products/sectors, ...

# Research Needs

## (Life Cycle) Assessment

- ◆ Relevant data for global scale activities
- ◆ When to include site dependent distinctions, can these be for characteristic regions, emission scenarios, ...
- ◆ Consider uncertainty (model, data, ...), co-variation, ..., validation/proof
- ◆ Develop framework to include forecasting for potential improvements/development

# Research Needs

(Life Cycle) Assessment cont.

- ◆ Develop and improve methods for land-use, water depletion, soil erosion, biodiversity, ...
- ◆ Develop methods to consider /ripple rebound effects
- ◆ Investigate when to use consequential vs. attributional modelling
- ◆ How to treat value/social judgments, such as time frames for CO<sub>2</sub> equivalents, social perspectives, weighting across safeguard subjects, external costs, ...