

UNEP/ SETAC Life Cycle Initiative

## Towards Global Guidance for Life Cycle Assessment (LCA) Databases

- a process to prepare a basis for improved interlinkages of databases worldwide



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## Objectives of Life Cycle Initiative

- **Objective 1:**  
*Refine and facilitate **methodologies** for life cycle impact assessment achieved by international consensus*
- **Objective 2:**  
*Facilitate the **use of life cycle based approaches** worldwide in business, government and the general public about natural resources, materials and products targeted at consumption clusters (food, housing and mobility)*
- **Objective 3:**  
***Expanding capability** worldwide to appl. cycle approaches*

## Value-added roles of the Initiative

- The ability to access and mobilize a network of over 1000 global interested members
- With this global network also comes the ability to:
  - facilitate, gather and manage examples of **best practices and achievements**; and
  - disseminate the **accomplishments** of the Life Cycle Initiative, its sponsors and partners to all corners of the world.

→ One stop shop for life cycle approaches

## Vision towards a Global Guidance on LCA DB

- To provide global guidance on the establishment and maintenance of LCA databases, as the basis for future improved interlinkages of databases worldwide.
- To facilitate additional data generation (including for certain applications such as carbon and water footprint creation) and to enhance overall data accessibility.
- To increase the credibility of existing LCA data, through the provision of such guidance, especially as it relates to usability for various purposes.
- To support a sound scientific basis for product stewardship in business & industry and life cycle based policies in governments, and ultimately, to help advance the sustainability of products.

This should complement other ongoing initiatives.

## Outline: Sections

1. **Introduction**
  1. Goal/ Vision statement
  2. Expectations
  3. Governing principles of the process
2. **Guiding principles for databases**
3. **Goal and Scope Definition focusing on LCIs**
  1. Application dependency
  2. Functional unit and product system
  3. System boundaries and scope
4. **Data Collection (and Selection)**
5. **Modelling principles for Life Cycle Inventories**
  - Major modelling issues
    1. Secondary modelling issues
    2. Special cases for modelling
6. **Data quality and consistency**
  1. Specifying data quality
  2. Managing data quality
  3. Data consistency
7. **Documentation and Reporting**
8. **Review and maintenance of the datasets**
9. **Limitations and user advice**

## Specific challenges (organisational)

TAKE THE ELEMENTS OUT THAT NOT RELEVANT FOR DATABASES/ also ISSUES WHERE MORE GUIDANCE IS NEEDED

- License conditions and ownerships
- Lack of communication about uncertainties
- Lack of transparency/ What does it mean?
- Confidentiality
- Definition of common nomenclature for elementary flows
- Claims of representativeness
- Conflict resolution mechanism for misrepresentation
- Protection from invalid studies and claims
- Verification
- Understanding review statements
- Updates of databases/ Communication of changes in results
- Interchangeability of data between databases
- Maintenance



## Specific challenges (technical)

- Missing data and meta data
- Lack of communication about uncertainties
- Unit versus system's data
- Definition of common nomenclature for elementary flows
- Understanding of data quality
- Guidance on geographic and technical representativeness
- Allocation in general and on Recycling in particular
- Treatment of biogenic emissions
- Ability to identify best available data
- Concept of qualitative data/ linked to social LCA
- Application dependent modelling
- Attributional/ consequential LCA
- Input/ Output data
- Completeness (cut-offs)
- Modification of datasets to own requirements
- Linking life cycle inventories to impact assessment/ spatial and temporal differentiation
- Verification
- Understanding review statements
- Future technology scenarios and Future waste scenarios



## Next steps

- A. Final Workshop Steering Committee Formation**
- B. Final Program Development**
- C. Acquisition of Financial Assistance**
- D. Invitation of Workshop Participants**
- E. Management of Workshop Logistics**
- F. Activities to ensure a wide acceptance of the outcomes in the wider expert community**



## For more information:

**Secretariat**

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