ecoinvent user meeting, Basel

Future development of the ecoinvent database

ecoinvent after version 3.1

- Version 3 brought many technological and methodological changes and improvements

- Version 3.1 brings a new system model, but also a lot of new and updated data

- The new framework offers much room for development without much technological development
  - Focus on data and update of the core data
  - Development of selected new system models
  - Targeted additions of functionality
  - Increase global coverage of the database

Update of the core data

- Version 3.1 brings an update of the wood sector
  - Significant update, replaces older data

- Further sectors would benefit from updates
  - Individual updates and specific improvements of existing data over various versions

- Focus on updates in addition to new data

- Reviews of core sectors
  - Check for reliability and consistency
  - Expand geographical coverage when relevant
  - Identify datasets where newer data are available
  - Carry out individual updates or whole sector updates

Update of the core data

- Metals

- Mining

- Energy and energy resources

- Freight transport

- Waste treatment and Recycling

- Electronics

- …

Update of the core data

- Complete sector updates bring several benefits
  - Consistency in modelling and structure
  - Consistent use of available data sources
  - More transparency of the sector

- Data for new sectors and areas of impact are also planned
  - Consumer goods (incl. textiles and food products)
  - Household and office activities
  - Buildings and infrastructure
  - Indoor emissions
  - Noise

Developments of new system models

- 3 system models offer choice to the users

- Too many system models lead to potential confusion

- Further models for end-of-life scenarios
  - Consistent scenarios for faster sensitivity analysis
  - Implementation of PEF end-of-life modelling (changed once already, currently undergoing review)

- Other models possible for specialty or non-LCA applications

Development of new functionalities

- Careful evolution of the version 3 system

- Assessment of new methodologies and functionalities
  - Review of benefits, problems and acceptance

- Development of additional functionalities
  - Maintain compatibility
  - Optional and non-intrusive
  - New features for data providers that users will not notice

ecoinvent as a global database

- Make use of new functionalities to grow the database

- ecoinvent started as a **Swiss** database

- **International supply chains** demanded international data collection

- Now the most used global database of known quality

- Growth can be **challenging:**

  - Expertise at ecoinvent is Switzerland/Europe-centered
  - Data for different regions benefit from local expertise
  - International data collection ideally organized in a collaboration of regional data collection networks

ecoinvent as a global database

- Collaboration with **CIRAIG** in **Canada** to build an LCI database for Québec

- Data are **integrated** into the existing global supply chains

- Local data collection efforts can rely on **global background data** and grow organically into local process systems

- **Other collaborations** are in planning or are already submitting first datasets

Cooperation of LCI initiatives

- Cooperation with several emerging economies to support LCI networks in developing countries, supported by the Swiss government (SECO)

- Use the existing expertise of ecoinvent starting out as the Swiss LCI network

- The goal is to:
  - Build expertise on life cycle thinking and LCA
  - Create capacity for LCI data collection
  - Create background data for local (and global) studies
  - Grow into self-sustaining regional LCI competence centres

Conclusions

- Ensure that the **core sectors** of the database remain **valid**

- Provide **new system models** if beneficial to the user base

- **Assess** and **fine-tune** new features of the database

- Targeted development of useful improvements

- Expand the **global coverage** of the database and form **network of collaborators**

Thank you for your attention!

New system models?

Useful features?

Less useful?

Where should the database go?

Questions and Discussion

New sectors?

Data updates?

www.ecoinvent.org

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