

ecoinvent

most comprehensive and most complete
public LCI database worldwide



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CILCA 2009 / round table

« World LCI: databases and formats »

Pucón, Chile / April 28, 2009

Roland Hischier
ecoinvent Centre

Overview

Database

Format

Conclusion

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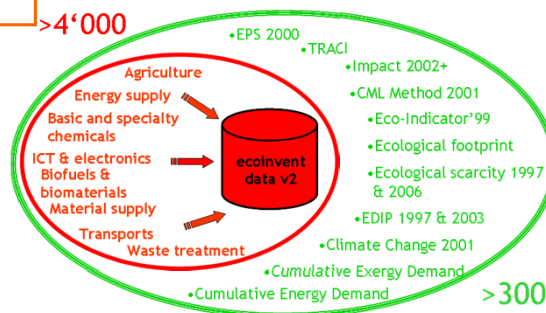
- Online database with **fully interlinked data**;
- a **simultaneous calculation** of about 4'000 product systems;
- **Link inventory to major LCIA methods**;
- **Independent quality assurance mechanism**;
- **full access to unit process data and rolled-up data**;
- all Multioutput datasets with **unallocated data provided**;
- using an ISO-compatible format in XML technology:
 - easy data exchange
 - one format for LCI & LCIA
 - working, widely applied and accepted

consistent

reliable

transparent

>4'000



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Transparent & Consistent Data






- Data imported on a **unit process level** (except plastics data)
[unit process = smallest unit (with its direct inputs/outputs) that makes sense to be distinguished in such a database]
- Connected to product systems** within the ecoinvent database
 - > maximum **transparency**,
 - > maximum **consistency**,
 - > maximum **flexibility** (punctual updates, if necessary)
- Unit processes are **indispensable** for relevant LCA research and consulting
 - European Technology Assessment:
 - long time horizon
 - need to adapt existing data to future situations
 - Regional background databases:
 - different supply mixes
 - need to adapt existing data to regional situation

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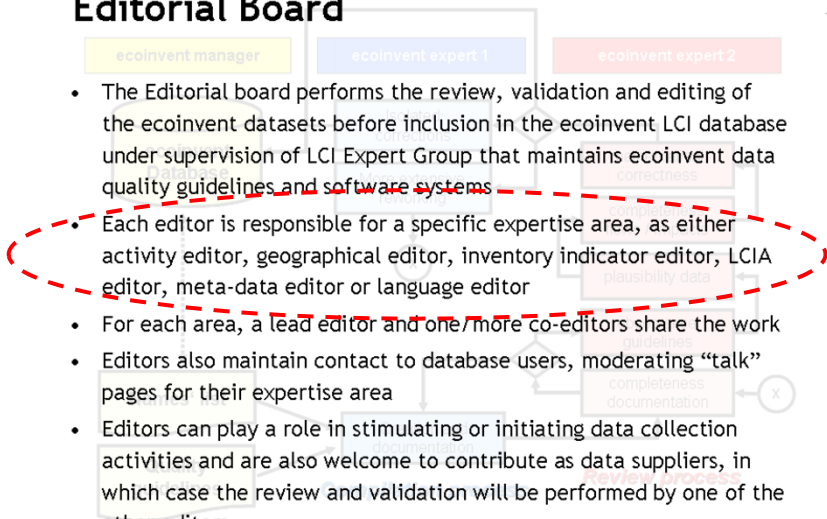


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Reliable / Validated Data

Editorial Board

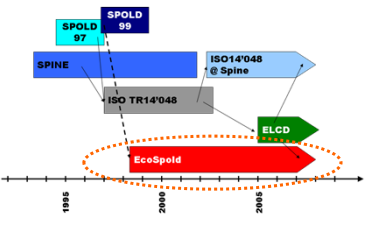


- The Editorial board performs the review, validation and editing of the ecoinvent datasets before inclusion in the ecoinvent LCI database under supervision of LCI Expert Group that maintains ecoinvent data quality guidelines and software systems
- Each editor is responsible for a specific expertise area, as either activity editor, geographical editor, inventory indicator editor, LCIA editor, meta-data editor or language editor
- For each area, a lead editor and one/more co-editors share the work
- Editors also maintain contact to database users, moderating “talk” pages for their expertise area
- Editors can play a role in stimulating or initiating data collection activities and are also welcome to contribute as data suppliers, in which case the review and validation will be performed by one of the other editors

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EcoSpold – a format that ...



```

graph TD
    subgraph "Ecoinvent data documentation of process"
        MI[Meta Information]
        PI[Process information]
        MV[Modelling & validation]
        AI[Administrative information]
    end
    subgraph "Flow data"
        FD1[Flow data]
        AF[Allocation Factors]
    end
    MI --- PI
    PI --- MV
    MV --- AI
    PI --- FD1
    FD1 --- AF
  
```


- ... is Compliant with ISO/TS 14048;
- ... enables extensive documentation, individual determination of allocation factors, confidential data management (if required);
- ... is « Open source »;
- ... facilitates the communication between LCA practitioners;
- ... is working, is widely applied (e.g. US, AUS, ecoinvent, ...) and accepted;
- ... is available as an import (and partly as an export) interface implemented by all major LCA software providers !

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Overview
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... and in development: EcoSpold v2

- ecoinvent Working Group is working on an **update of the EcoSpold data(exchange)format**. Main drivers are:
 - facilitating database maintenance and extension;
 - much better support for data exchange with ILCD;
 - support for mass, energy and monetary balances;
 - support for language versions;
 - support for better documentation;
 - support for hybrid LCA.
- Currently programming a Beta-Version ... that should go to (internal) testing in these days !



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Overview
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STRENGTH


- 4'000 LCI datasets
- Transparency, consistency and reliability of all datasets
- The Validation system for the quality insurance of datasets
- Independant organisation that continues to maintain unique LCI database
- Offer Cooperation with NDIs

 SimaPro	 umberto	 GaBi	 openLCA
 Regis	 Green-e	 EMIS	 KCL-ECO
 Team TEAM	 CMLCA		






WEAKNESS


- ecoinvent is a **NON-PROFIT ORGANISATION**, not supported by any government:
 - income (by licence fee - or in an other way !) needed in order that database can be maintained and also further developed ...

Free educational ecoinvent licences for Non-OECD countries



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Thank you!

More information:






ecoinvent Centre
c/o Empa, Lerchenfeldstrasse 5
CH-9014 St-Gallen, Switzerland

support@ecoinvent.org

www.ecoinvent.org



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