GreenDeltaTC
sustainability consulting + software

Interacting with the ILCD data network from an LCA software - the example of openLCA

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LCM 2011 Berlin, August 2011

Agenda

1. Background: ILCD & openLCA
2. Connecting the ILCD database network with LCA software
   a. Why – benefits?
   b. Principle
   c. Extensions
3. Practical use case: The German BioEnergieDat project
4. Outlook & discussion

1. ILCD & openLCA

ILCD: International reference Life Cycle Data network

JRC EUROPEAN COMMISSION

ies Institute for Environment and Sustainability

Meeting among LCA tool and developers on
"The International Reference Life Cycle Data System' (ILCD) - IT implementation"
Ispra, Italy, November 19th 2008

European Reference Life Cycle Database (ELCD)

and EU policy related needs on the ILCD

Marc-Andree Wolf, David Pennington, Rana Pant, Kirana Chomkhamsri, Ugo Pretato
European Commission,

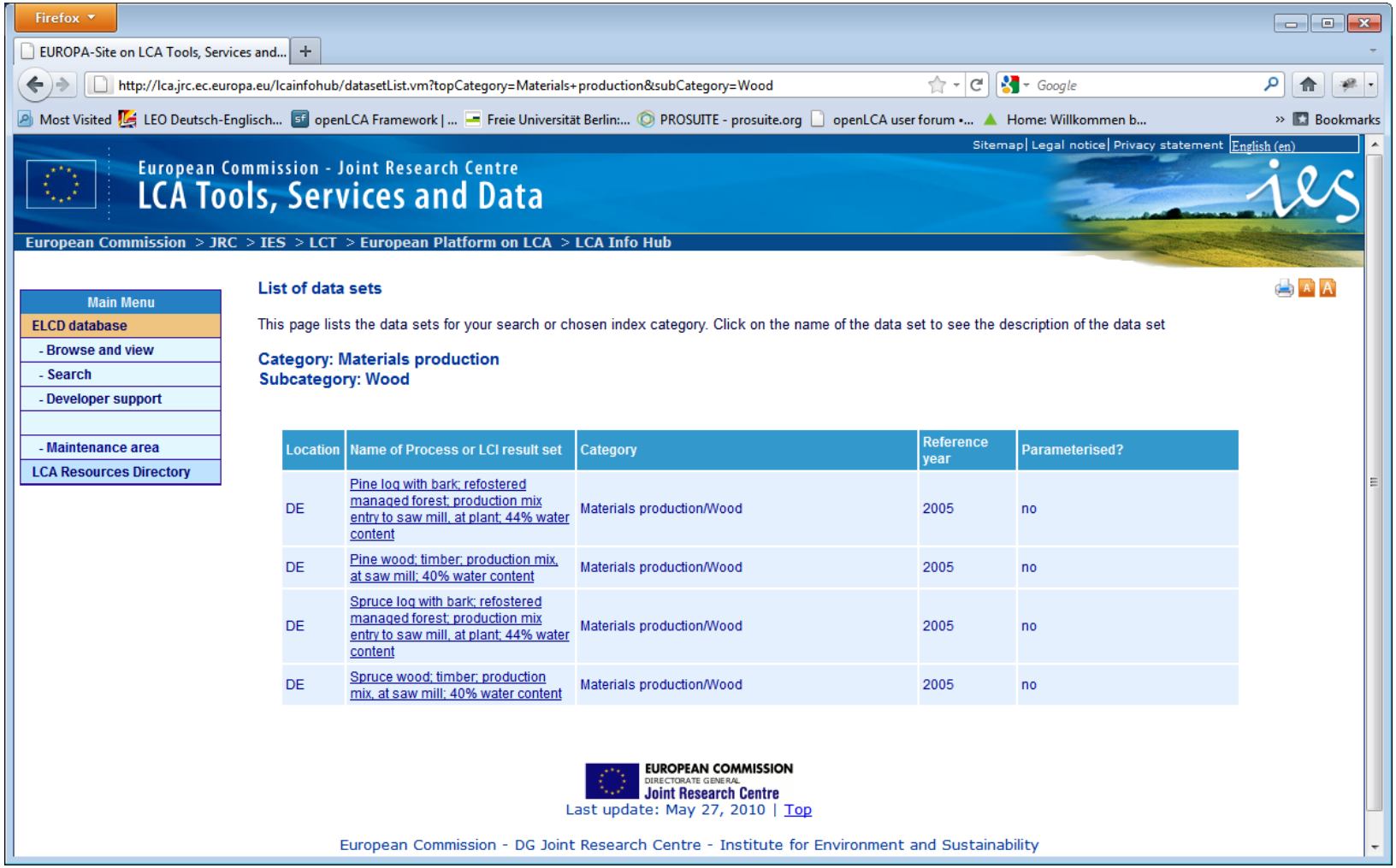
ILCD: International reference Life Cycle Data network

- ILCD (ex ELCD) data format
- Tools (editor, …)
- Handbooks
- Databases
- (…)

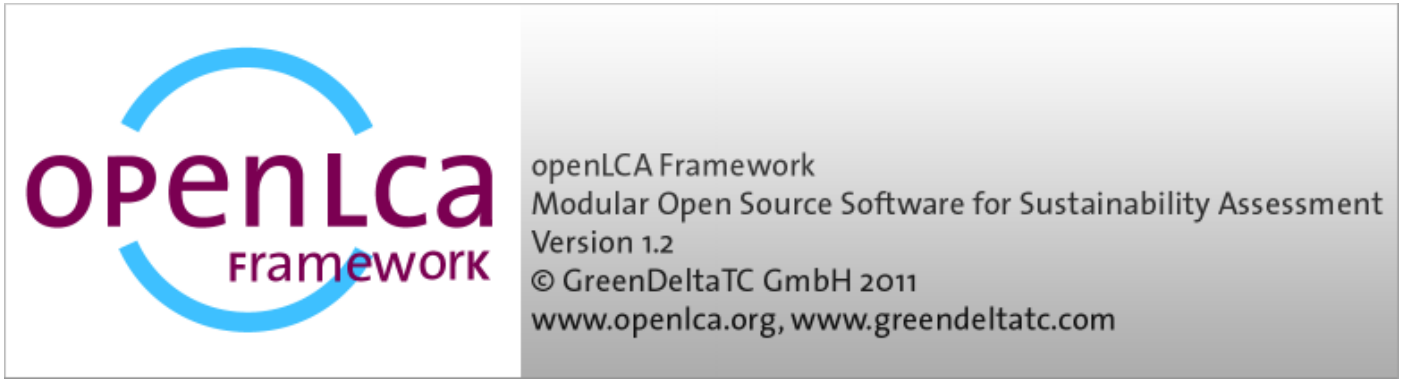
ILCD: International reference Life Cycle Data network

- ILCD (ex ELCD) data format
- Tools (editor, …)
- Handbooks
- **Databases**
  - ELCD database, JRC, Ispra
  - Other countries: Brazil, Malaysia, Thailand, …
  - Database as such not bound to countries or governments

ELCD database as one example

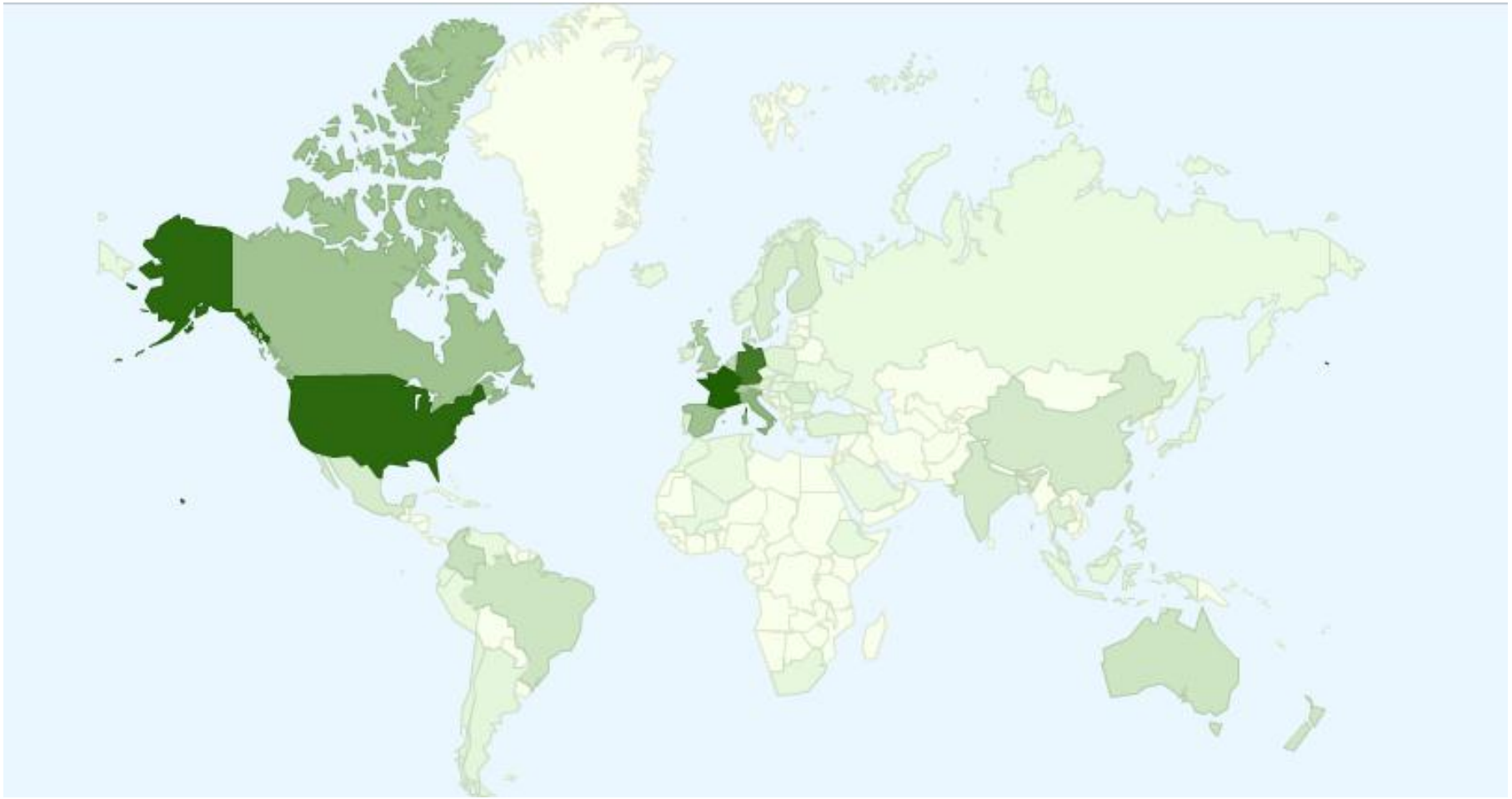


openLCA: free and open source, professional Life Cycle Assessment software



Websites:

- www.openlca.org project website
- www.sourceforge.net/projects/openlca download site
- www.openlca.org/documentation wiki documentation



- > 2500 Downloads 2011!

openLCA Framework by aci_

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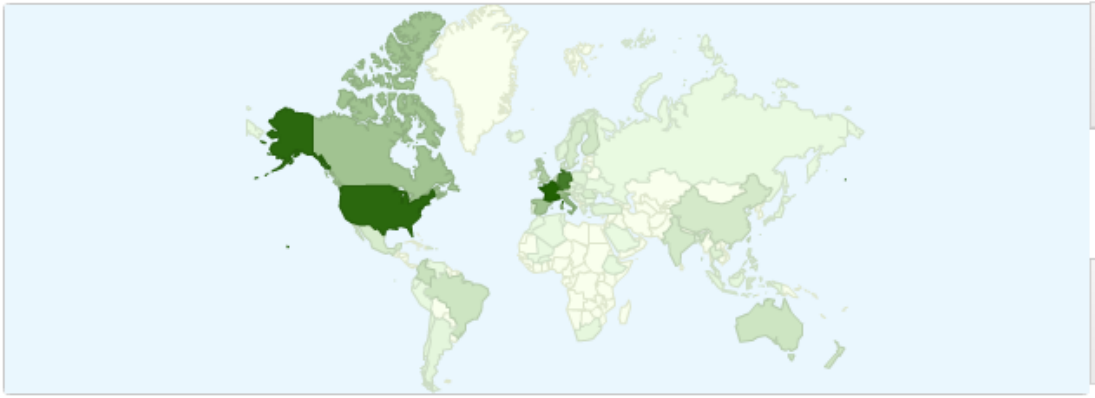
Summary | Files | Reviews | Support | Develop | Hosted Apps | Tracker | Mailing Lists | Forums | Code

Home / openlca_framework (Change File)

Date Range: 2011-01-01 to 2011-08-11



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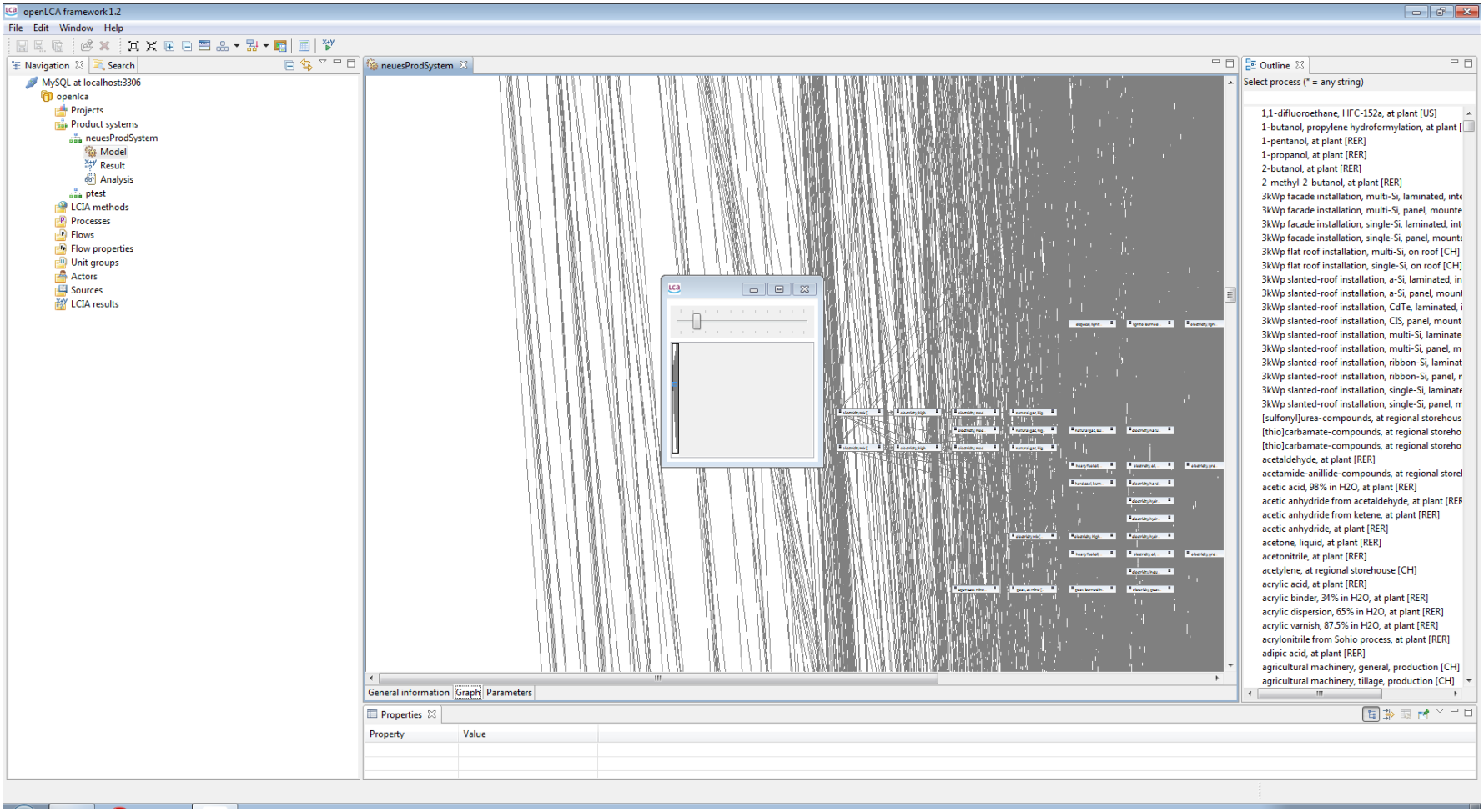
9.	Colombia	59
10.	Netherlands	58
11.	Brazil	50
12.	Australia	50
13.	New Zealand	46
14.	Finland	44
15.	Taiwan	44
16.	India	40

openLCA large system view



2. Connecting the ILCD database network with LCA software

Connecting the ICLD database with LCA software – benefits

- Web-database is always available
- Contains data sets in a form that fits to the local database of the user
- Upload of datasets to the database is also possible

→ Smarter than exchanging single data sets
→ Fewer / no import problems (!)
→ In the long run, data market place possible

Connecting the ICLD database* with LCA software – benefits

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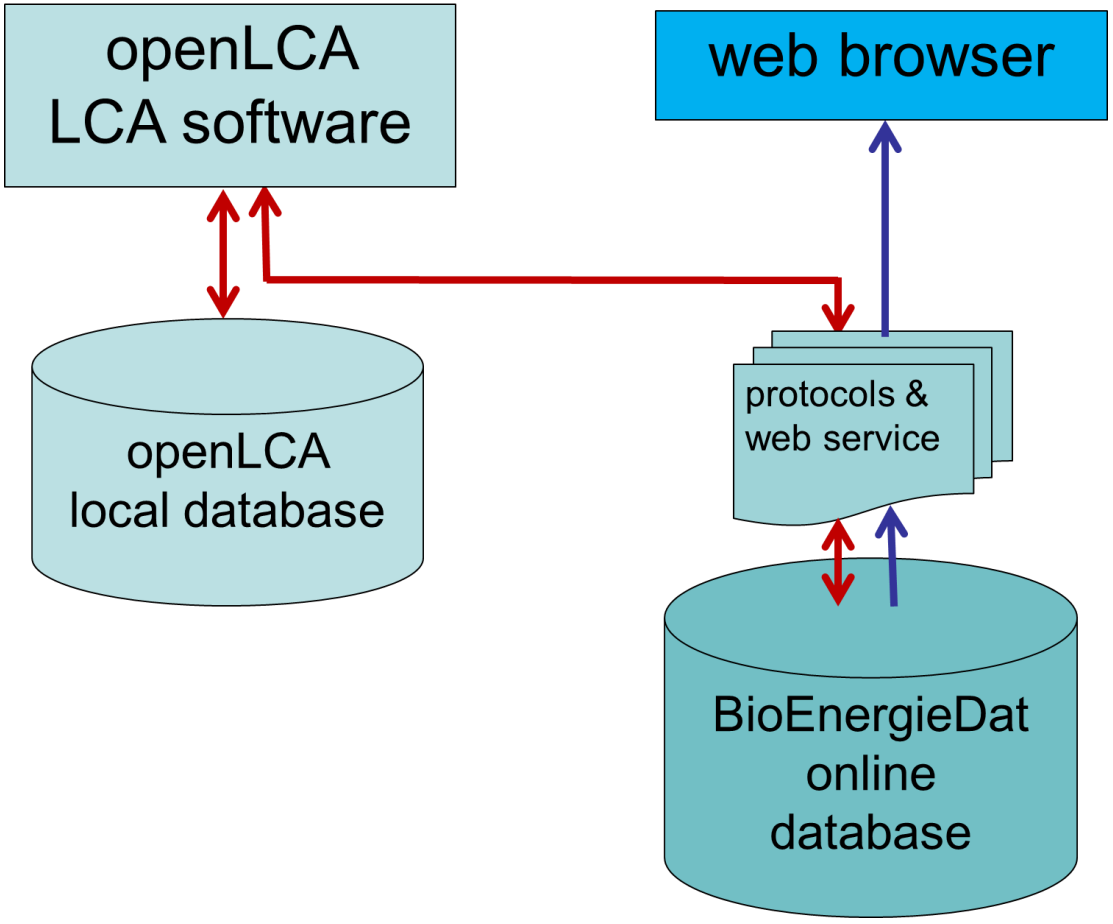
*also called „SODA4LCA“ (service oriented database application)

Connecting the ICLD database with LCA software – principle



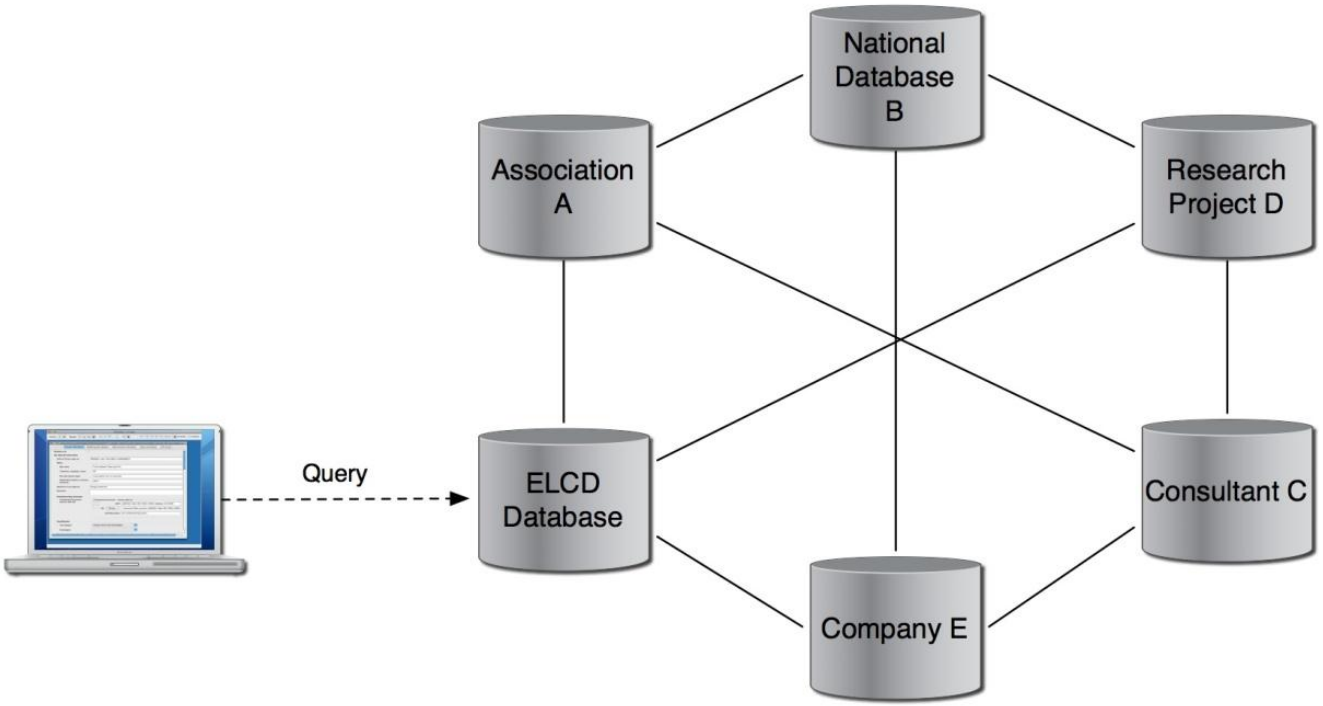
Ciroth, A.; Schebek, L.; Düpmeier, C.; Eltrop, L.: Harmonised datasets for Bioenergy Life Cycle Assessments in Germany, 19th European Biomass Conference, 2011

Connecting the ICLD database with LCA software – extensions

- ILCD database is available also „outside of“ JRC → you can create an own ILCD database (such as the BioEnergieDat case)

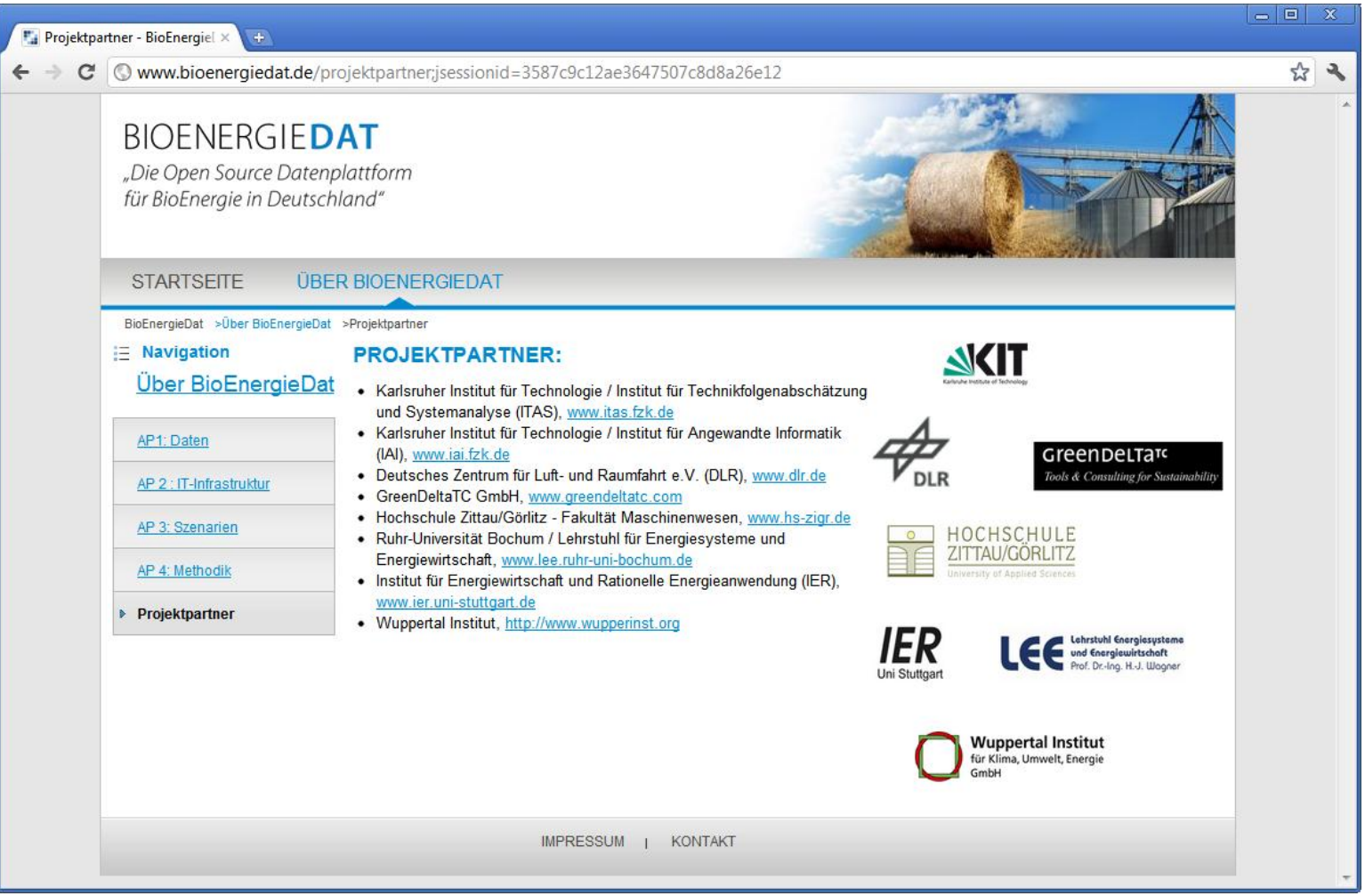
- There is the idea to connect the different ILCD-type databases → a connection to one database offers connections to others (but of course, sensitivity issues)

Connecting the ICLD database with LCA software – extensions



3. Practical case:
The German BioEnergieDat project

The BioEnergieDat project



Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit

Im Rahmen der Klimaschutzinitiativ

DIE BMU KLIMASCHUTZ-INITIATIVE

im Förderprogramm

Energetische Biomassenutzung

The BioEnergieDat project

launched September 2010 with the aim to

1. provide datasets for a consistent Life Cycle Assessment of bioenergy options, and to
2. develop a modelling software and database for efficient life cycle assessment modelling and data exchange (www.bioenergiedat.de).

The modelling software will be open source and freely available and be created based on openLCA; the database will be created based, technically, on the ELCD database of the European Commission (http://lca.jrc.ec.europa.eu/lcainfohub/datasetArea.vm).

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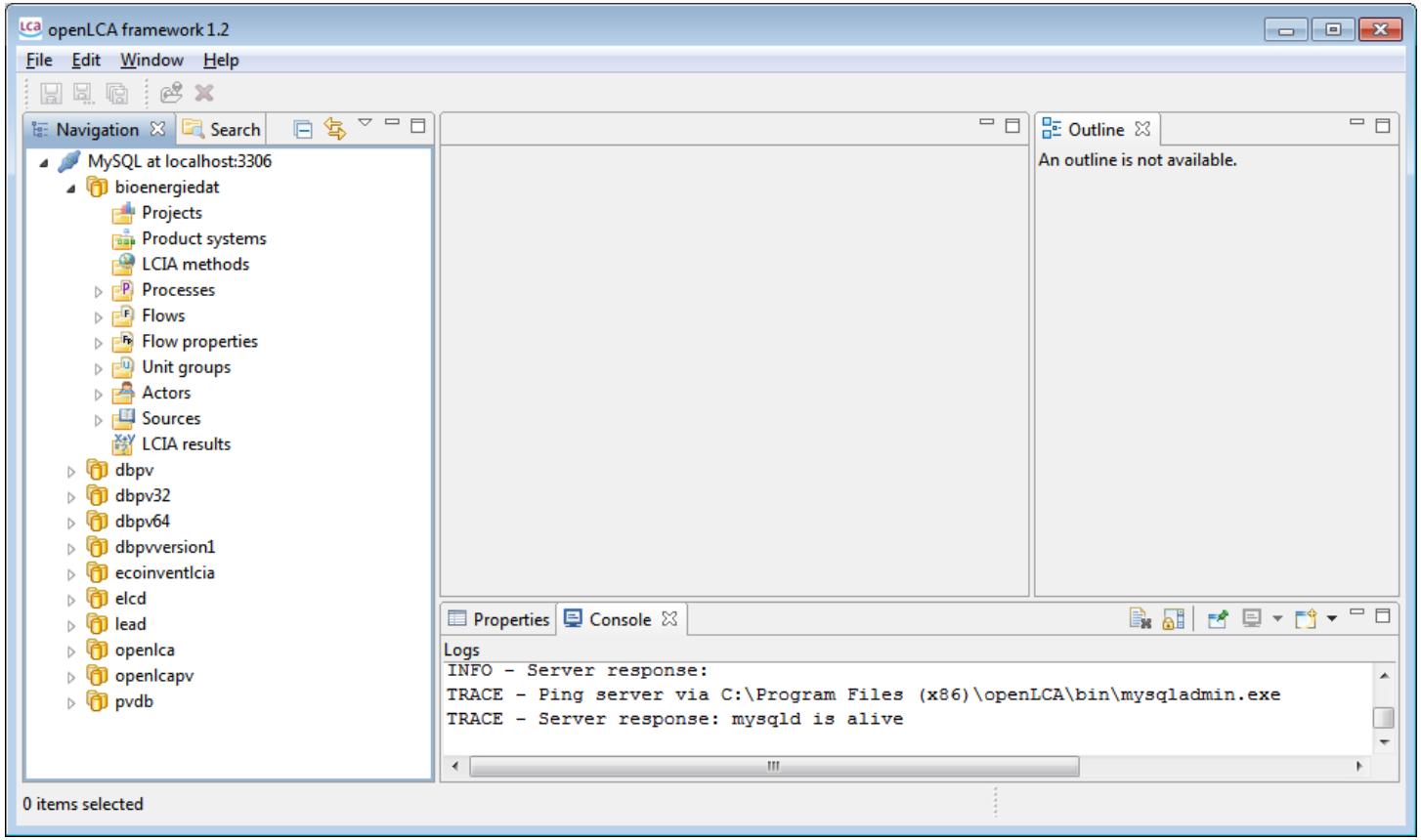
Energetische Biomassenutzung

Connecting to the database – a practical demonstration



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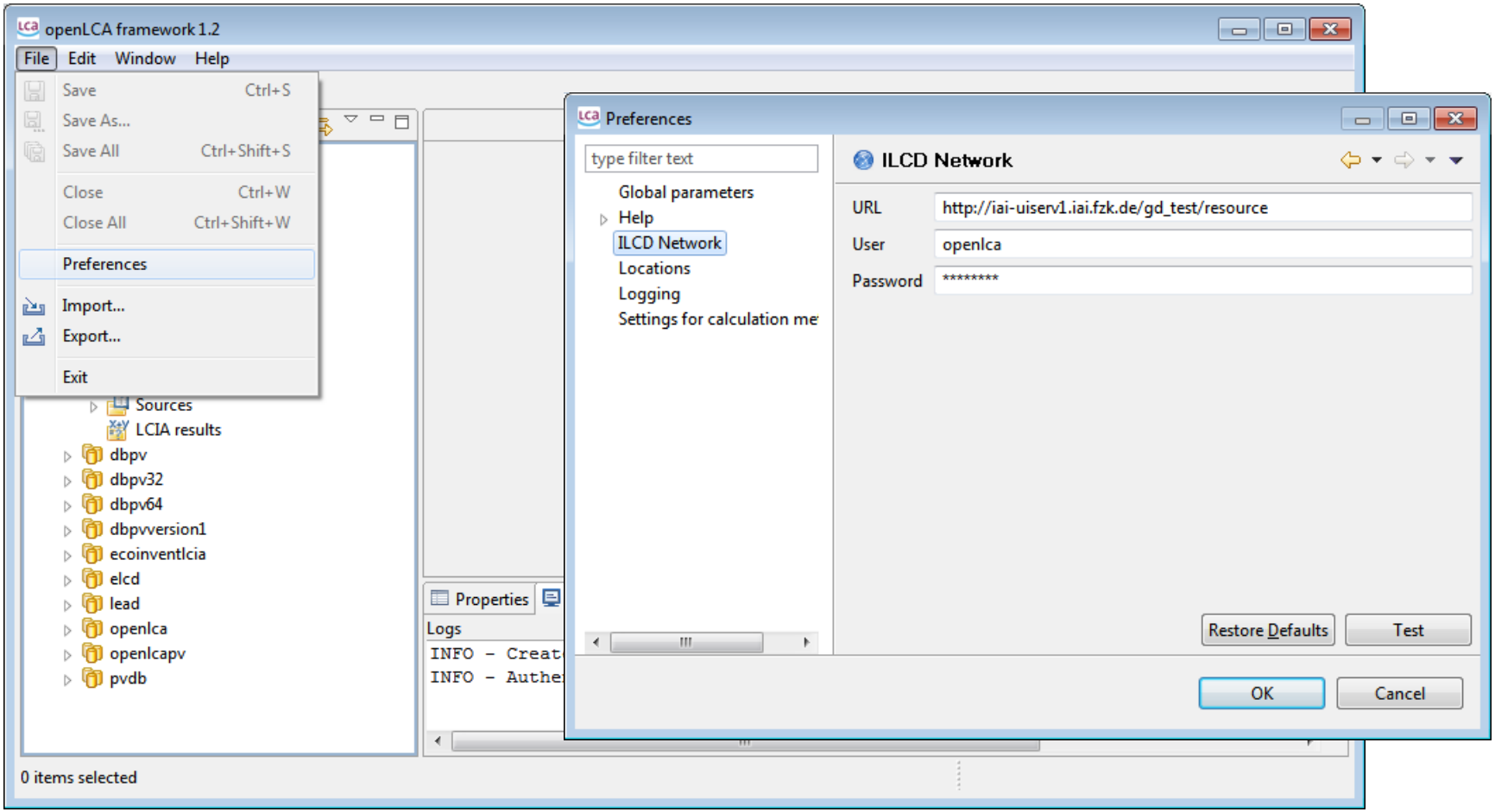

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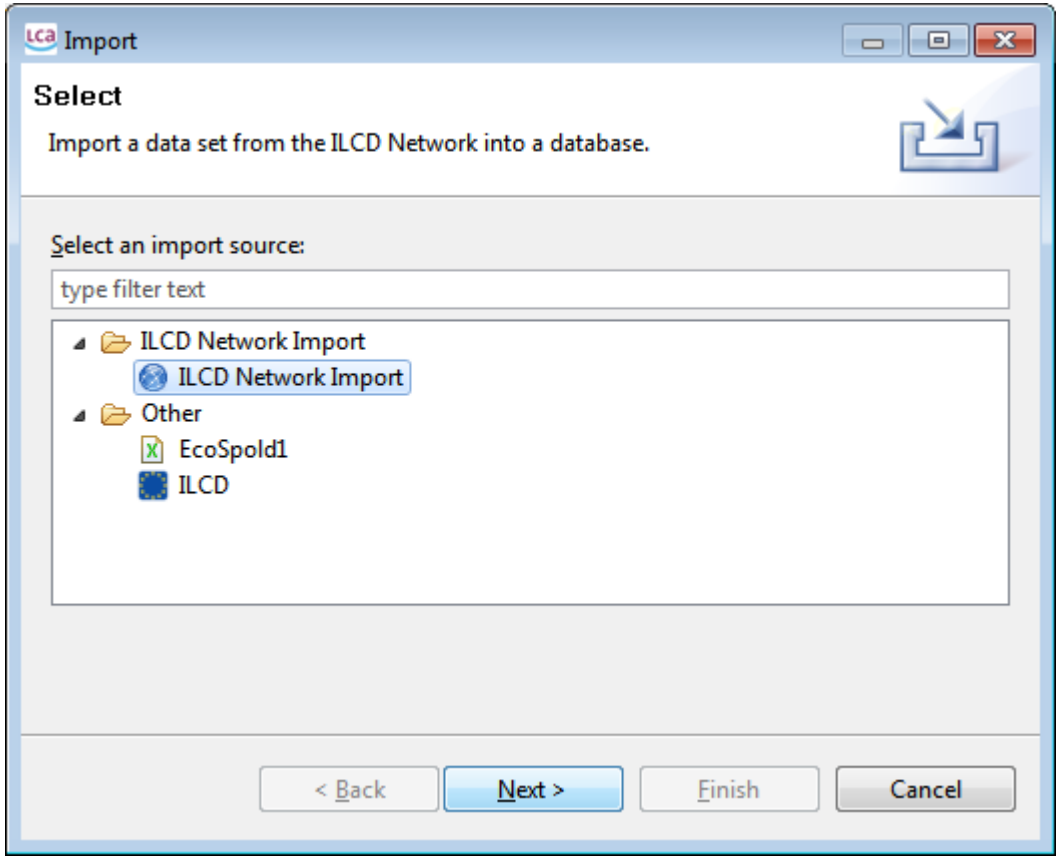

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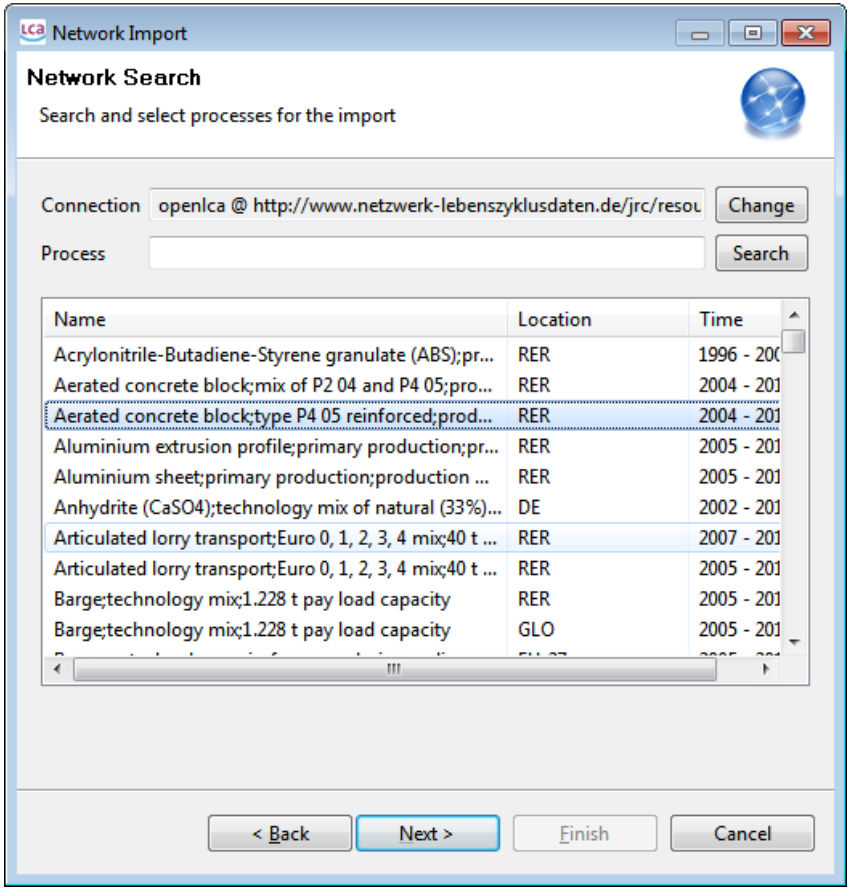

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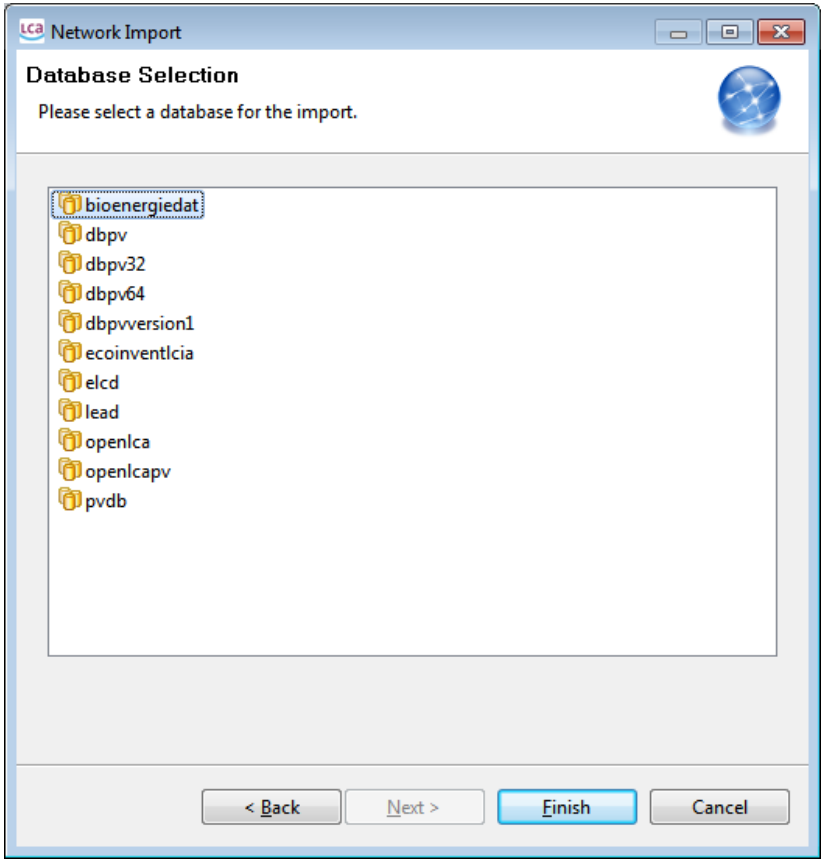

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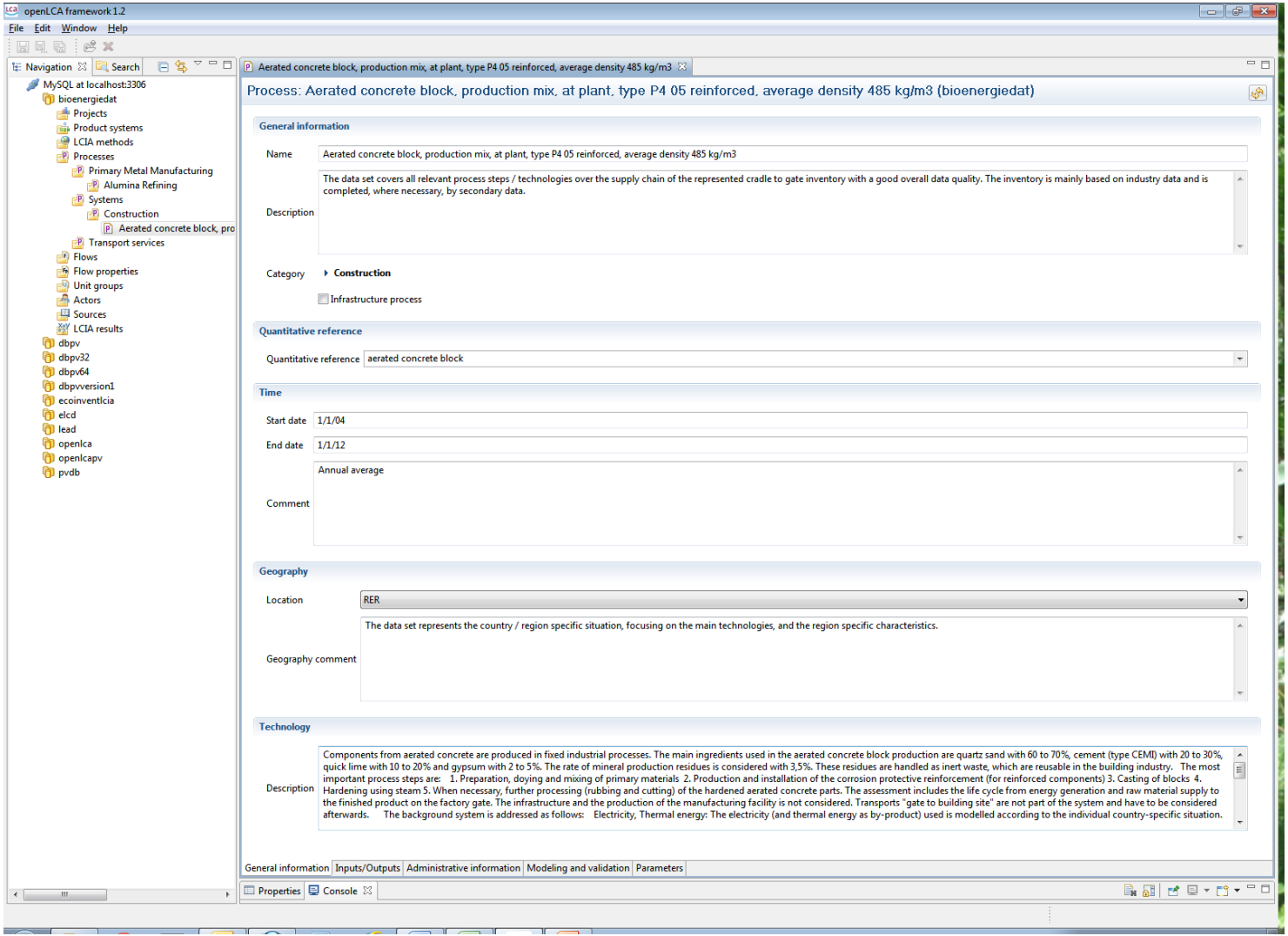

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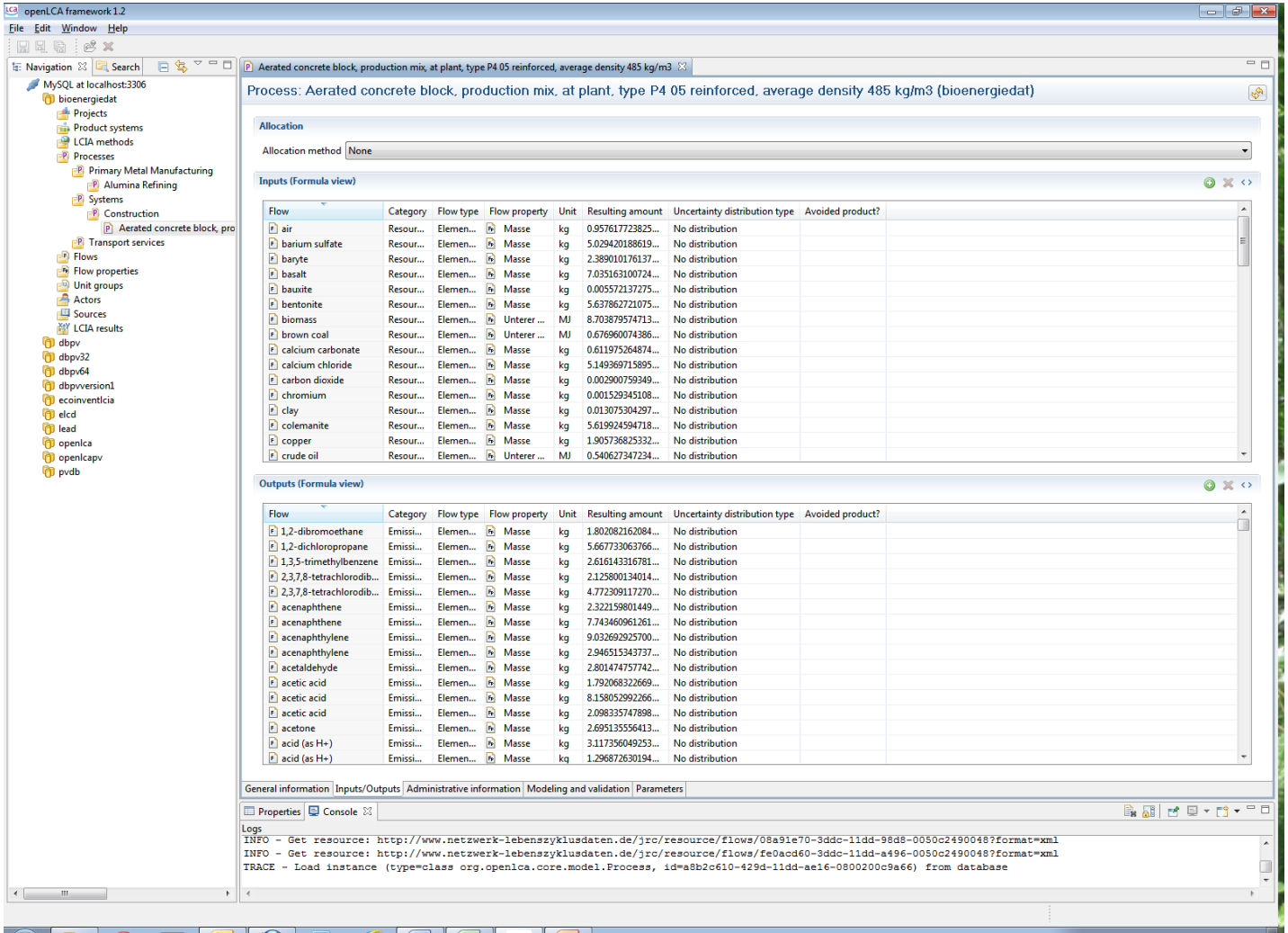

4. Outlook, discussion

Summary, outlook, and discussion

- We have implemented a direct connection between the LCA software openLCA and a database of the ILCD network
- This connection allows uploading and downloading datasets, directly
- This makes data exchange much smarter than before
- It is currently used, and was implemented within, a German research project on bioenergy data sets

Summary, outlook, and discussion, 2

- In principle, this connection to one ICLD database opens a connection to all other different ILCD databases
- ILCD databases can be located on the web, as the ELCD database, but also local, or in an intranet
- BioEnergieDat project partners seek to establish a long term system based on the current implementation (lead: GreenDeltaTC)
- If you have interest → please contact us!

Vielen Dank.

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