exiobase implementation in openLCA

a multi-regional IO database in openLCA

Version: 1.0

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About exiobase

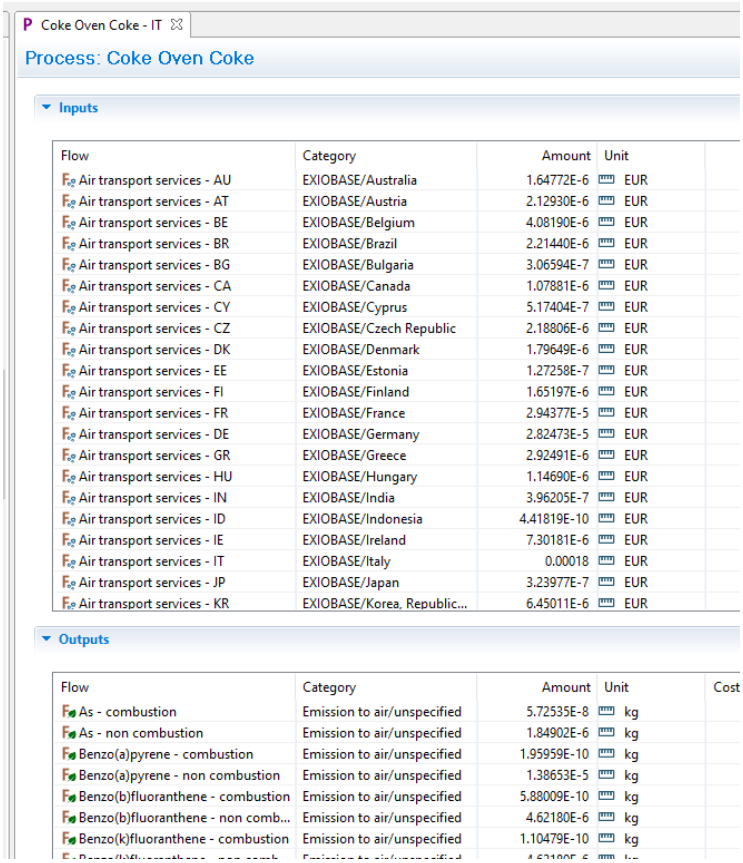
> **"**EXIOBASE is a global, detailed Multi-regional Environmentally Extended Supply and Use / Input Output (MR EE SUT/IOT) database. It was developed by harmonizing and detailing SUT for a large number of countries, estimating emissions and resource extractions by industry, linking the country EE SUT via trade to an MR EE SUT, and producing an MR EE IOT from this. The international input-output table that can be used for the analysis of the environmental impacts associated with the final consumption of product groups." (http://exiobase.eu/)

With support of the exiobase database consortium, the database is now available in openLCA, as free database, in version 2.2.

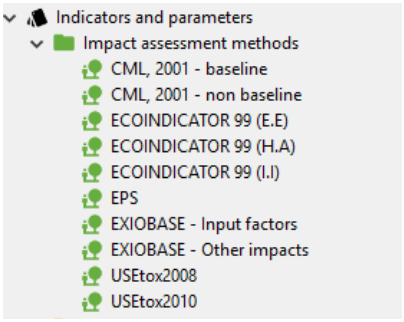
exiobase in openLCA

The exiobase is available as zolca database and can be used as any other database in openLCA; some aspects are worth noting:

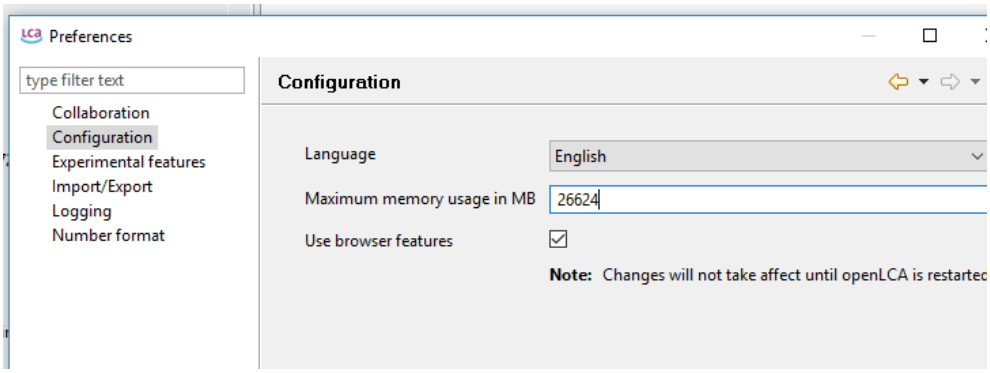
- since exiobase is an Input/Output database, it should not be combined with other databases from Nexus
- each process dataset represents one "country specific sector"
- exchanges between processes are provided in monetary units, in EUR



- exiobase is an "environmentally extended" IO database, therefore each data set contains also emissions elementary flows (see above); these elementary flows are not part of the openLCA reference flows
- the exiobase database contains also an own set of Life Cycle Impact Assessment methods which fits to the elementary flows of the database



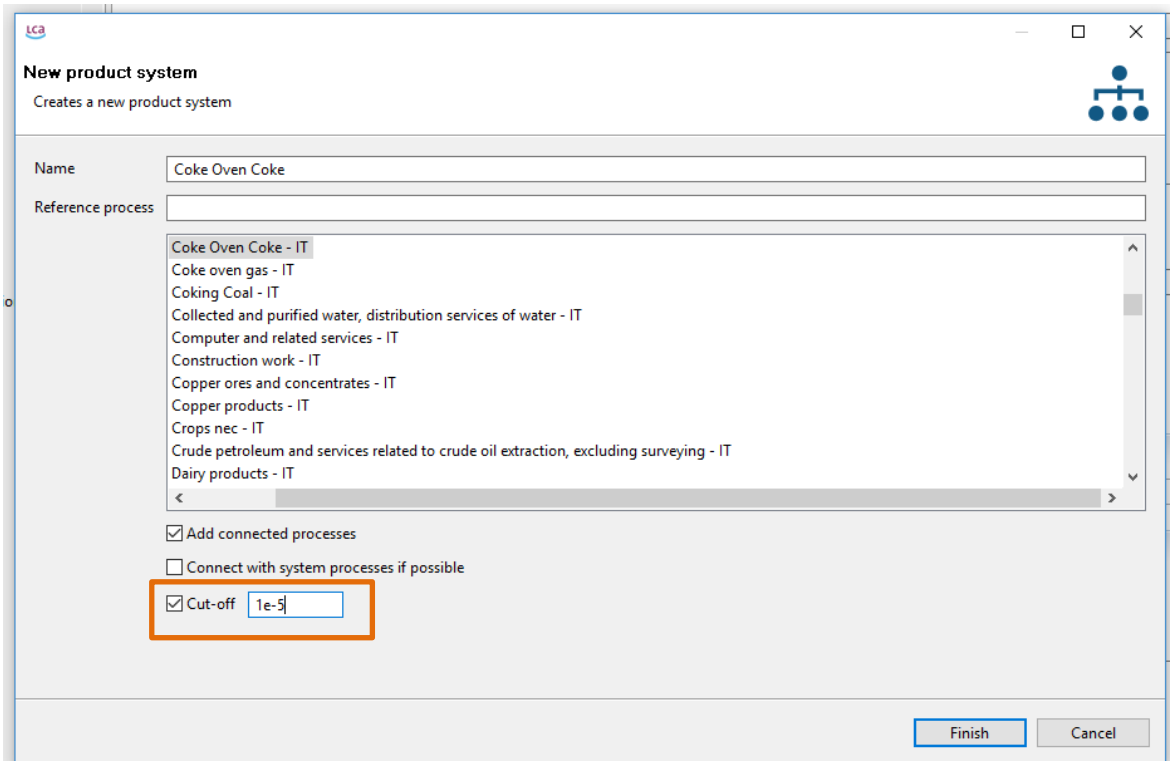
- exiobase is a really large database, therefore as much memory as possible is recommended for openLCA (change in preferences); however, due to the cut-off feature in openLCA, also lower amounts of memory are feasible.



Using the exiobase database in openLCA

Exiobase can be used just as any other database; create product systems and calculate them, with or without LCIA methods. Data quality systems are not implemented in the database so far, also costs are not implemented (but this could be added later).

(e.g., for process data set)



A complete system, without cut-off, requires about 26 GB of RAM.

Contact

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