

GUIDELINES FOR THE COLLECTION OF CONSISTENT AND COMPREHENSIVE LCI DATA

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There are several different Life Cycle Inventory (LCI) databases for Life Cycle Assessment (LCA) studies available. In previous studies often NZ data complemented with international data have been used. The worldwide most used LCI database is called “ecoinvent”. It is compatible with the GaBi, SimaPro and most other common LCA Software tools. It contains around 2’700 fully consistent, transparent, harmonised and quality controlled unit process data of a large number of economic sectors: e.g. energy supply, building and construction, transportation, chemicals, etc. (www.ecoinvent.com). Ecoinvent uses the EcoSpold LCI data format which is also used for the U.S. LCI database and the Australian LCA database. It enables an extensive documentation, individual determination of allocation factors and if required confidential data management. The EcoSpold data format is open source (public license) and independent of the database.

To collect new NZ data and to link them to existing up- and downstream process data for calculating an LCA one must be aware of the modelling principles. The principles used in the ecoinvent database have therefore been adapted to the New Zealand situation in consultation with the LCA NZ steering group and presented in a guideline which helps explaining the user (industry, science, tool developer, etc.) how the data should be collected, what the cut off rules are, explaining that the used infrastructure must be taken into account, what standard disposals are included, etc. After having included the unit process data in the Software tool for example GaBi or SimaPro it is then possible to identify the hot spots in the upstream process. With that a slow and continuous transformation without high investments from the Swiss/European LCI database to a NZ database is achieved.