

# Reducing the uncertainties in adapting prior LCI and flow data set databases to the ILCD-recommended characterisation methods

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In the past years, the Joint Research Centre (JRC) conducted a state of the art of the existing environmental characterisation methods in order to recommend the most relevant ones. This study led to the selection of 17 ILCD-recommended mid-point and end-point impact indicators.

They are and will be widely used as compulsory characterisation methods in national and European directives and standards. Therefore, Life Cycle Assessment (LCA) practitioners and tools have strong incentives to perform LCAs based on these methods.

The selected characterisation methods have been adapted to comply with the ILCD recommendations concerning the dataset documentation and the list of ILCD elementary flows. This framework reduces the uncertainties inherent to possible incompleteness and inaccuracies in ILCD-compliant databases and limits the risks of misinterpretation.

Yet, most of the existing LCA tools and LCI databases were developed in the past decades and were based on different methodologies. They are not always compliant with ILCD recommendations.

Therefore, there is a gap between the existing databases and the recommendations on different levels: available elementary flows, nomenclature, classification, localisation, differentiation of generalized flows (e.g. Hydrocarbons (unspecified)), database completeness, etc. This gap leads to possible uncertainties in LCIA results.

The goal of this presentation is to show how to adapt an existing database to ILCD recommendations in order to reduce this gap. First it will show how to identify the sources of the uncertainties in LCIA results, then how to reduce them, and finally how to establish a methodology to base the future data development on the ILCD framework.

**Source:** ILCD handbook

**Session:** Increasing the robustness in life cycle impact assessment methods

**Keywords:** Life-cycle assessment, Ecological risk assessment, Uncertainty, Case study

**Presentation preference:** poster presentation