

## International Reference Life Cycle Data System (ILCD) Handbook

Supporting business and public authorities towards sustainable production and consumption

To achieve more sustainable production and consumption patterns, we must consider the environmental implications of the whole supply-chain of products, both goods and services, their use, and waste management, i.e. their entire life cycle from “cradle to grave”. The International Reference Life Cycle Data System (ILCD) Handbook provides governments and businesses with a basis for assuring quality and consistency of life cycle data, methods and assessments.

### Overview

The **ILCD Handbook** is a series of technical documents that provide detailed guidance on all the steps required to conduct a Life Cycle Assessment (LCA).

In the Communication on Integrated Product Policy, the European Commission committed to produce a handbook on best practice in LCA. The Sustainable Consumption and Production Action Plan confirmed that “(...) consistent and reliable data and methods are required to assess the overall environmental performance of products (...)”. The Handbook’s main goal is to ensure quality and consistency of life cycle data, methods and assessments. It’s main target audience is LCA practitioners, data providers, and reviewers.

### Why is the Handbook essential?

- The ISO 14040/44 standards provide the general framework for Life Cycle Assessment. However, this framework leaves the practitioner with a range of choices that can change the results and conclusions;
- Comprehensive guidance is required to support consistent and robust results and coherent requirements derived from LCAs;
- The ILCD Handbook aims to reduce costs by improving the compatibility and consistency of data generation and reporting requirements;
- The ILCD Handbook aims to increase stakeholder acceptance of the tool LCA and its results;
- The ILCD Handbook directly supports detailed LCAs. Based on the Handbook and these detailed assessments, simplified yet coherent and reliable life cycle criteria and tools can be derived (see Figure 1). These can be used in everyday decision-making by a wide range of stakeholders.

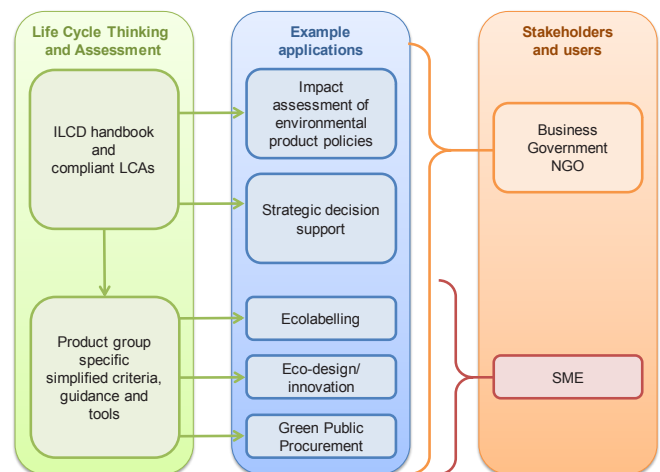


Figure 1: Relationship between the ILCD Handbook, simplified criteria, applications and stakeholders/users

### Benefits of Life Cycle Assessment

LCA facilitates comparisons of environmental performance of different products on an equal basis, ensuring a “level playing field”.

LCA helps to avoid resolving one environmental problem only to create others elsewhere, by taking a comprehensive approach in one consistent framework:

- Considering the entire life cycle of a product from the extraction of resources, through production, use, and recycling, up to the disposal of waste;
- Quantifying resources consumed as well as emissions that can be attributed to the product;
- Providing indicators of the product’s contribution to a wide range of environmental problems such as climate change, toxic pressures, and resource depletion.

## What is the ILCD Handbook?

The ILCD Handbook consists of a set of documents (see Figure 2) that are in line with the international standards on LCA (ISO 14040/44) :

- The “**General guide for Life Cycle Assessment**” consists of both a comprehensive, detailed guide as well as a “cook-book”-style guide for experienced LCA practitioners. It covers all aspects of conducting an LCA: defining the objective and target audience, gathering data on resource consumption and emissions that can be attributed to a specific product, calculating the contribution to impacts on the environment, checking the robustness and significance of results and conclusions, and reporting and reviewing to ensure transparency and quality.
- The “**Specific guide for Life Cycle Inventory (LCI) data sets**” builds on the general guide. It provides more detail for the generation of specific types of data. For example, it describes how to create LCI data sets that best reflect the average situation regarding emissions and resource consumption.
- The **Life Cycle Impact Assessment (LCIA)** guide provides requirements for assessing the emissions and resource consumption associated with a product in terms of impacts on the environment, human health, and resources depletion. It outlines criteria against which models and indicators for use in LCIA should be evaluated, covering both scientific aspects and stakeholder acceptability.
- The guide on “**Review schemes for Life Cycle Assessment**” presents the minimum requirements for review for life cycle data or assessments for different applications. The guide on “Reviewer qualification” specifies the requirements on the experiences and expertise of reviewers.

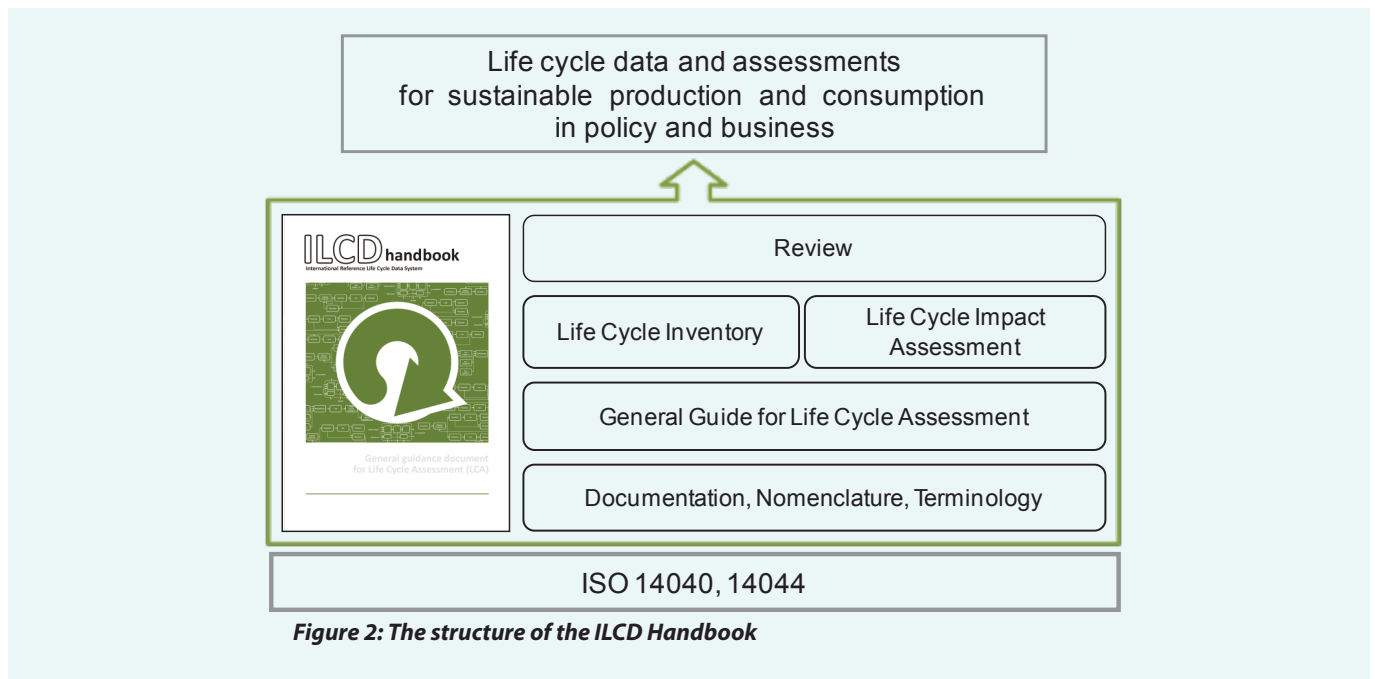


Figure 2: The structure of the ILCD Handbook

## Consultation

In order to achieve a best-attainable consensus reflecting current best practice, the ILCD Handbook was developed through a series of consultation steps, involving amongst others advisory groups from

business, LCA software developers and LCIA method developers, five national LCA projects from outside the EU, the United Nations Environment Programme (UNEP), and the general public.

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