

Supporting business and public authorities towards sustainable production and consumption

The way we currently produce and consume products is unsustainable. This contributes to many of today's environmental problems. **Life Cycle Thinking (LCT) and Assessment (LCA)** help to identify and reduce the environmental and health impacts as well as the resource use of our production and consumption.

Based on the Communication on Integrated Product Policy, the **European Platform on LCA** aims at improving the quality and reliability of life cycle data and assessments, increasing the availability of life cycle data, facilitating knowledge exchange. The European Platform on LCA supports a range of environmental policies and business instruments (see Figure 1).

Business Case

Life Cycle Assessment is successfully used in the private sector, for example:

- Continuous environmental improvement of products;
- Internal strategic decision support;
- Evaluating risks and opportunities along the supply chain;
- Communication on strategic aspects with stakeholders at company and association level;
- Communication with customers on products, e.g. via Environmental Product Declarations (EPD), carbon labels and footprints.

Principles

The European Platform on LCA's activities and deliverables build on five guiding principles:

- Best attainable consensus;
- Existing practice and knowledge;
- Scientific robustness;
- Practicality and affordability;
- Providing long-term support.

Platform Deliverables

International Reference Life Cycle Data System (ILCD)

The **ILCD Handbook** consists of a series of detailed technical guidance documents on life cycle methods, data and assessments to support consistency and quality assurance. It builds on the ISO 14040 series.

Based on the requirements of the ILCD Handbook, the upcoming **ILCD Data Network** will provide consistent and quality-assured data on resource consumption and emissions (Life Cycle Inventory - LCI). Stakeholders worldwide can provide their data to this decentralised network, on their own terms and conditions, e.g. for free or for a fee.

European Reference Life Cycle Database (ELCD)

The ELCD provides reference LCI data on emissions and resources used for selected materials, energy carriers, transport, and waste management. These data are representative of the European market and are regularly needed to conduct LCAs. As far as possible, the data are provided or approved by European business associations.

LCA Resources Directory

This Directory eases the access to information, including tools, databases, and service providers in the LCA area on a global basis.

LCT Forum Mailing List

This discussion forum facilitates knowledge exchange. It is open to all to ask technical questions on LCA and related applications like Eco-Design, Eco-Labels, Carbon Footprints, and to announce LCA conferences and open positions.

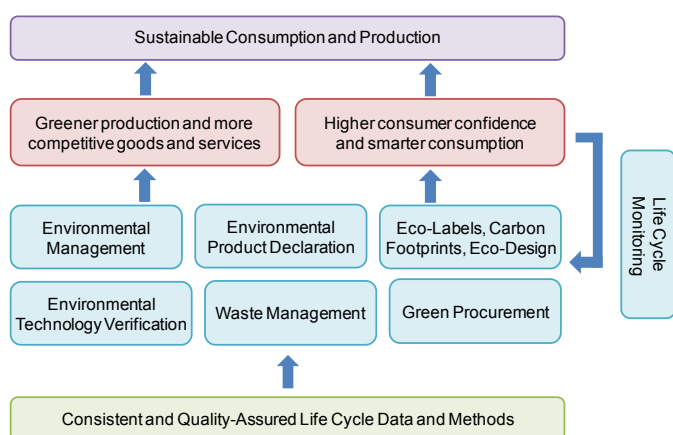


Figure 1: Life-cycle-based instruments supporting sustainable production and consumption

Life Cycle Assessment is a structured and globally standardised (ISO 14040/44) method for the quantitative environmental evaluation of products (goods and services).

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

LCA helps to avoid resolving one environmental problem while creating others elsewhere by taking a comprehensive approach in one consistent framework (see Figure 2):

- 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 into air, water and soil 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.

LCA complements other environmental assessments, like site specific Environmental Risk Assessments.

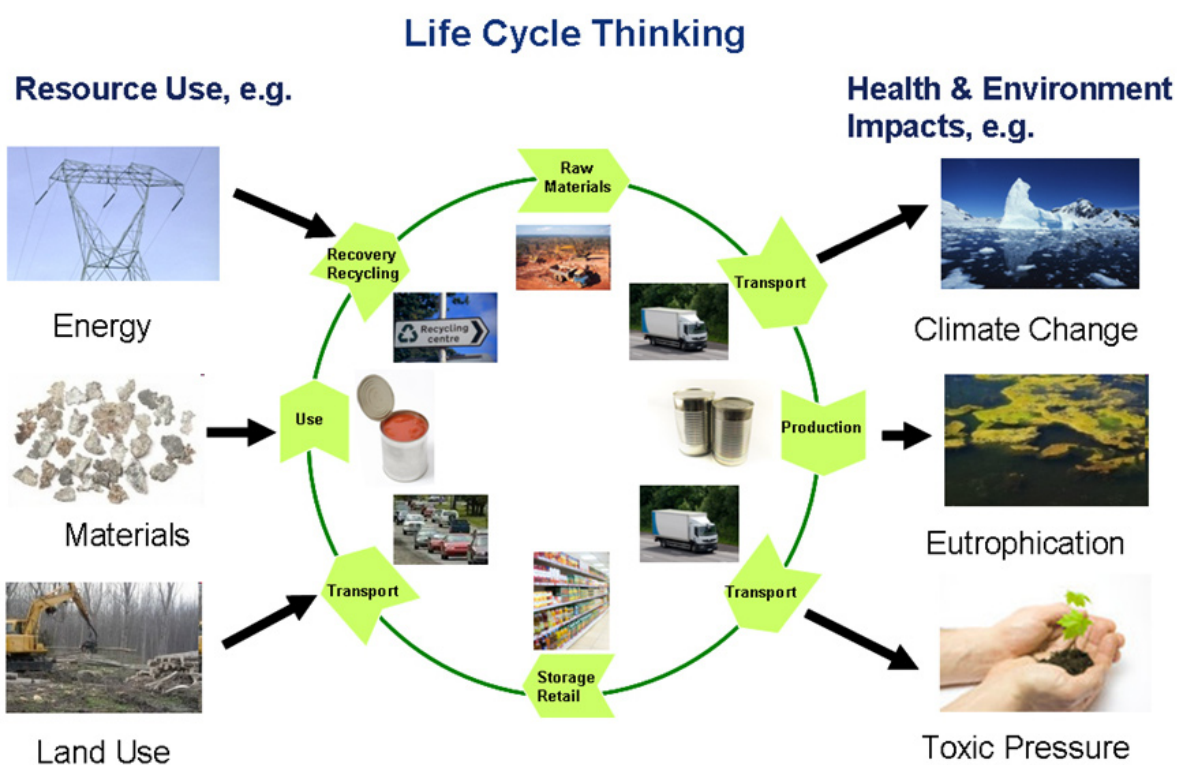


Figure 2: Life Cycle Thinking

Consultation

To reflect current best practise and stakeholder acceptance, deliverables are developed through consultation with:

- The European Union’s 27 Member States and Commission services;
- Representatives of non-EU national LCA database projects, as well as with the United Nations Environment Programme (UNEP);
- An Advisory Group of European-level business associations;
- An Advisory Group of LCA software and database developers;
- An Advisory Group of Life Cycle Impact Assessment method developers.

DISCLAIMER: Neither the European Commission nor any person acting on behalf of the Commission nor any organisation involved in the development of this document is responsible for the use that might be made of this publication.

For further information:
 European Platform on Life Cycle Assessment
 European Commission, Joint Research Centre (JRC),
 Institute for Environment and Sustainability (IES)
 TP 270, Via E. Fermi 2749, I-21027 Ispra (VA), Italy
 Fax: +39 0332 78-6645
lca@jrc.ec.europa.eu, <http://lct.jrc.ec.europa.eu>