

# A practical guide to green products and services

May 15 2012

---

A new report published today by the European Commission's in-house science service, the Joint Research Centre (JRC), provides key information for policy makers and business managers on how to assess the environmental impacts of products and services. It helps to pave the way towards a resource-efficient Europe and aims to help design more sustainable products, which are indispensable in a world of 7 billion people and limited resources.

The increasing [world population](#) and the way in which we produce and consume goods are placing unprecedented pressures on our environment. We need to engage in more sustainable production and [consumption patterns](#) if we are to address the resulting challenges, in particular climate change and the depletion of natural resources.

[Life Cycle](#) Thinking is key to making substantial improvements in the environmental performance of goods and services. This concept looks at the environmental impact of production, distribution and consumption activities from cradle to grave, quantifying the environmental impact of products from the extraction of natural resources to product recycling or waste disposal.

The International Reference Life Cycle Data System (ILCD) was developed to provide guidance for greater consistency and quality assurance of Life Cycle Assessments. This new JRC report provides useful information that will help public administrations to use the ILCD as a technical reference for environment related policies, supporting

them also for issuing tenders for [service contracts](#). It supports business managers in developing greener, more efficient products and technologies by implementing Life Cycle Thinking in a structured and coherent manner. Finally, it helps policy makers and business actors to improve their environmental image and save money by implementing robust Life Cycle Assessments that will increase stakeholders' confidence and resource efficiency, and promote more environmentally friendly supply chains.

## **Background**

Life Cycle Thinking (LCT) helps to assess the sustainability of supply chains, use, and end-of-life management options for goods and services. Life Cycle Assessment (LCA) is a structured scientific method, internationally standardised according to ISO 14040 and 14044 that facilitates the implementation of LCT.

This scientific method quantifies the resources consumed, emissions, and related environmental, health and resource depletion issues that are associated with any specific good or service. Some of the topics it addresses include [climate change](#), summer smog, ecotoxicity, human cancer effects, material and energy resource depletion. It also quantifies functional performance in order to allow for direct comparisons with alternative options. Finally, it captures the full life cycle of the system, from the extraction of resources, through production, use, and recycling, up to the disposal of remaining waste.

Applications of LCA include ecolabelling, ecodesign, environmental and carbon footprinting, green procurement and waste management. It addresses strategic questions on the environmental impact of and potential improvements in the use of natural resources. It is used to steer the development of technology families (e.g. fuel cells) and to quantify the environmental performance of production sites and companies.

Increasingly, this assessment is also employed to evaluate the [environmental impact](#) of policy options.

The 2011 Communication on a resource-efficient Europe, a flagship initiative under the Europe 2020 Strategy, takes these developments to the next stage, as it promotes taking a life-cycle approach to reducing the environmental impacts of resource use in the EU. This flagship initiative re-iterates the importance of using a consistent analytical approach.

**More information:** The JRC Reference Report 'The International Reference Life Cycle Data System (ILCD) Handbook' can be downloaded from: [publications.jrc.ec.europa.eu/ ...ndle/11111111/25589](http://publications.jrc.ec.europa.eu/...ndle/11111111/25589)

Provided by European Commission Joint Research Centre

Citation: A practical guide to green products and services (2012, May 15) retrieved 6 May 2024 from <https://phys.org/news/2012-05-green-products.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.