

UNDERSTANDING THE DIFFERENCES BETWEEN LIFE CYCLE THINKING AND LIFE CYCLE ASSESSMENT

Life Cycle Thinking (LCT) is a concept that integrates existing consumption and production strategies, preventing a piece-meal approach. LCT and other approaches can be used to improve the way we think about problem solving and use available information. Life cycle approaches help avoid shifting problems from one life cycle stage to another, from one geographic area to another and from one environmental medium (air, water, soil) to another.

“Life cycle thinking implies that everyone in the whole chain of a product's life cycle, from cradle to grave, has a responsibility and a role to play, taking into account all the relevant external effects. The impacts of all life cycle stages [materials and manufacturing, use by the customer, disposal and handling at end of use] need to be considered comprehensively when taking informed decisions on production and consumption patterns, policies and management strategies” (Klaus Toepfer, Executive Director, in: UNEP, 2004).

Life Cycle Assessment (LCA) is one decision support tool in the context of Life Cycle Thinking and is an analytical tool for the systematic evaluation of the potential environmental aspects of a product or service system through all stages of its life cycle. LCA is described and defined within the series of Environmental Management Standards of the International Standard Organisation, ISO (ISO 14040/14044, 2006).

Life Cycle Assessment (LCA), Design for Environment (DfE), and Integrated Product Policy (IPP) are all examples for approaches and tools building on the concept of Life Cycle Thinking. Overall, Life Cycle Thinking is much broader than and distinct from quantitative and qualitative tools, amongst which Life Cycle Assessment is a very prominent one, and which continue to evolve for mapping life cycle aspects.

“The current form of life cycle analysis can tell us what the materials and energy flow is and where the impacts occur. To make decisions in a life cycle perspective, however, we need to move to life cycle management. Therefore, we need to include a key player analysis at important stages in the chain, a systematic study of policy options, and a management model for addressing impacts in a holistic way.” (Fritz Balkau, Head, Production & Consumption Branch UNEP Division of Technology, Industry and Economics in: UNEP, 2004).

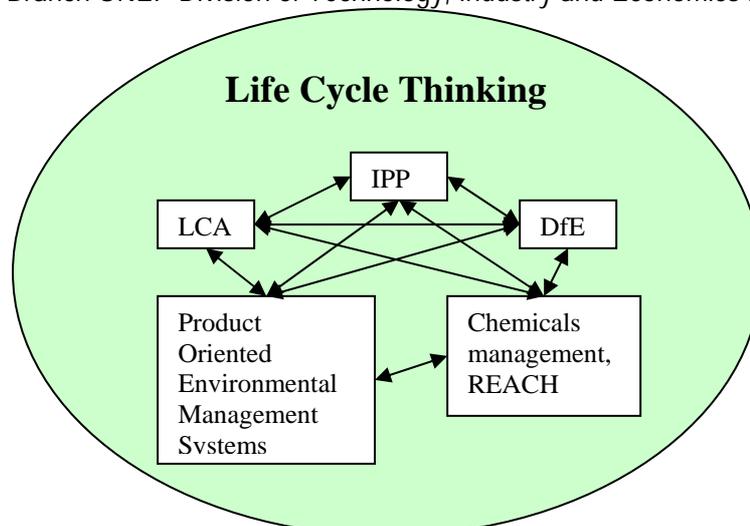


Figure: Relationship between Life Cycle Thinking and related tools