

Towards increased impact of life cycle information in product and service innovation

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Many businesses of today now recognize the need for a life cycle perspective, for use not only in accounting but also for innovative purposes. However, while availability of data and understanding of the life cycle concept as such continues to grow, there is still inertia in life cycle information having practical implications on decisions and actions throughout the everyday work in the company.

In a project aimed at a better understanding of company internal uses of life cycle information, the existence and use of life cycle information in four large companies (all having with extensive experience of life cycle thinking) were studied. Data collection was made in case studies with two main purposes; to a) follow and illustrate flows of life cycle information within large companies, and to b) understand the role of life cycle information in decision-making outside of the environmental departments. The case studies covered applications such as development of new product concepts, introduction of new materials, and market introduction of eco designed products and services.

The study reveals other dominant barriers than normally assumed; not having or understanding the life cycle information provided. The barriers found were rather related to other aspects of the decision process: Complementary data important for the decision (such as material availability or economic implications for alternate designs) could be missing, recommendation of the most preferred alternative not being clearly presented, concerns about e.g. increased uncertainties and risk not being met, or guidance on how to handle tradeoffs such as between economic and ecologic goals absent. Sometimes information was also not provided in the timeframe needed to change the particular process, or existing routines and tools did not allow the inclusion of life cycle information in a systematic manner.

Insights from the study point to the importance of understanding the broader context in which the life cycle information should be used, in order to reach impact as decision support. To assist in this, a short guide has been designed to support life cycle proponents in having a more holistic view of the decision making situation and to highlight common pitfalls hindering life cycle information to influence company practices.