

A UNEP/SETAC LCM Business Guide

Allan Astrup Jensen,¹ Jeppe Frydendal,² Arne Remmen,³ Sonia Valdiva,⁴ and Guido Sonnemann⁴
¹FORCE Technology, Park Alle 345, DK-2605 Broendby, Denmark, aaj@force.dk
²Danish Standards, ³Aalborg University, ⁴UNEP DTIE Paris.

Keywords: LCM, Life cycle management, life cycle thinking, UNEP-SETAC, business guide.

ABSTRACT

In connection with the first phase of the UNEP/SETAC Life Cycle Initiative the publication: “Life Cycle Management - a Business Guide to Sustainability” has been produced. The publication shows how practical application of life cycle thinking can be implemented in business organizations around the World in order to reduce resource consumption and emissions of hazardous substances to the environment, as well as improve the socio-economic performance, in all stages of a product’s life in the value chain.

Introduction

The journey towards sustainability requires that businesses, governments and individuals take action, i.e., changing consumption and production behaviours, setting policies and changing practices, improving the quality of life. Businesses have to find innovative ways to be profitable and at the same time expand the traditional business to include the environmental and social dimensions coined “the Triple Bottom Line”, and to introduce “Product Life Cycle Thinking”.

The main aim of Life Cycle Thinking is to reduce resource consumptions and emissions to the environment, as well as improve the socio-economic performance, in all stages of a product’s life.

Results

In connection with the first phase of the UNEP/SETAC Life Cycle Initiative the publication: “Life Cycle Management - a Business Guide to Sustainability” has been produced.¹ Earlier, in 2005 a more detailed Background Document for Life Cycle Management was published based on input from three UNEP/SETAC LCM Task Forces.²

Life Cycle Management (LCM) is a systematic application of life cycle thinking in modern business practice with the aim to provide the societies with more sustainable goods and services and to manage the total life cycle of an organization’s product portfolio or brands towards more sustainable production and consumptions.

Discussion

LCM can facilitate the link between the economic, social and environmental dimensions within a company.

LCM is explicitly aimed to modify and improve the performance of product systems and supports the business assimilation of, for example, environment-oriented product policies.

Life Cycle Management (LCM) is for organizations, which have adopted a strategy expressing a wish to produce or trade products, which should be as sustainable as feasible, to improve their public image, visibility and general relations to stakeholders, increase their shareholder value and keep it persistent, work towards being a sustainable business and be in the forefront of competitors, be at the edge of and prepared for future legislative developments.

LCM is systematic integration of product sustainability in company strategy and planning, in product design and development, in purchasing decisions and in communication programs in order to minimize environmental and socioeconomic burdens associated with a product, product portfolio or brand during its entire life cycle and value chain.

LCM is voluntary and can be gradually adapted to the specific needs and characteristics of individual organizations. LCM is not a single tool or methodology but a flexible management framework of programs, concepts, techniques and procedures incorporating environmental, economic, and social aspects of products, processes and organizations.

LCM is not an application of Life Cycle Assessment (LCA) but LCA is one of many tools, techniques, concepts and programmes which may generate information and data to be used in a Life Cycle Management System. Other tools etc. could be Life Cycle Costing, Cost Benefit Analysis, Material Flow Cost Accounting,

Eco-design, Eco-labelling, Green Procurement, Suppliers' Code of Conduct, and Corporate Social Responsibility.

LCM is a new concept, and the definitions of terms are not yet standardized, and procedures and methodologies are still open for discussion.

Conclusion

All organizations, including SMEs, can implement a LCM program, and in this Guide there are many examples of ongoing programmes with successful results.

Continued high priority by top management and active participation of all departments, functions and employees in a company are essential.

Every department has a role to play and has different interests and stakeholders. An environmental or sustainability department will often co-ordinate the implementation of LCM and the training of employees in the company and in suppliers.

The organization must 'go beyond its facility boundaries' and be willing to expand its collaboration and communication to all stakeholders in the value chain.

Implementation of LCM is a dynamic process; organizations may begin with small goals and objectives with the resources they have and get more ambitious over time.

For the implementation a step by step approach is useful. Special attention should be given to activities that can secure continuous improvement.

The Plan-Do-Check-Act cycle is recommended to be applied as in several other management systems.

References

- [1] A. Remmen, A.A. Jensen, J. Frydendal. Life Cycle Management – A Business Guide to Sustainability, UNEP DTIE, Paris, 2007.
- [2] A. A. Jensen, A. Remmen (eds). Background Report for a UNEP Guide to Life Cycle Management – A Bridge to Sustainable Products, UNEP DTIE, Paris, 2005. (to be downloaded from <http://lcinitiative.unep.fr>)