

Life cycle management - managing the sustainability of supply chains in the TOSCA project

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Abstract The TOSCA project - Towards sustainable supply chains through a common approach for company strategic work and daily operations - is a project with joint activities of the participants AkzoNobel, SCA and the department of Environmental systems analysis at Chalmers University of Technology. Besides developing a sustainability framework and introducing it in the participating companies, both participating companies are working with internal projects based on the specific needs within each company. Within SCA, the internal parts of the TOSCA project have focused on strengthening the work with suppliers regarding environmental sustainability. The work involves defining and establishing a way of working with suppliers, together with systems and tools in place for measurements and follow-up.

1 Introduction

A life cycle approach is a given starting point for international companies working actively to manage their product's environmental impact and overall sustainability. From initial work with performing a life cycle assessment of products, it is natural to quickly come to the conclusion that to improve a product's environmental performance the company has to start thinking in terms of life cycle management. To manage and efficiently steer the work in the different parts of the life cycle, different tools has to be applied such as environmental management systems, procedures for approval of chemicals, product safety, supplier evaluations, energy or water saving programmes, etc.

It is also obvious that for the parts that are upstream of the company, i.e. the suppliers and subsuppliers, a common approach on sustainability can make it possible to do this work in an efficient way. Structured procedures for data

collection, evaluations, feedback and follow-up have to be documented and implemented. The suppliers have to have a clear picture of what is expected of the delivered products, and what is expected from the relationship in the future. For a customer the business decision depends on factors like quality, product safety, price, delivery performance etc., which has to be weighed in with the environmental performance.

2 The TOSCA project and sustainability framework

AkzoNobel and SCA work together with Chalmers University of Technology in the TOSCA project - Towards sustainable supply chains through a common approach for company strategic work and daily operations.

The overall objective of TOSCA is to show practical experiences and examples on how to work with sustainability in supply chains. In the project, a sustainability framework has been developed, that consists of examples, working procedures, guidelines, strategies and tools that can be used in the work towards sustainable development, within the company and in its supply chain. The purpose of the framework is to provide guidance for facilitating the work with sustainability in a business environment, and present good examples of successful sustainability work. The framework is presented at the TOSCA website (www-tosca-life.com), and the aim for this website is to be an online knowledge portal where users can acquire inspiration and share experiences. Both participating companies are globally active, and the framework will be disseminated worldwide, as business units and suppliers can be found all over the world.

2.1 The TOSCA sustainability framework

The information in this portal is divided into different parts.

- Activities for working with sustainability in different parts of the supply chain
- Sustainable development – What does it mean?
- Getting started guides for central tools in the work

In the Activities part, the work have been divided into a number of main activities (see Fig 1.), where practical approaches and examples are described for how a company can introduce and integrate sustainability considerations into business

processes. Here AkzoNobel and SCA shares experiences of how they work, together with state-of-the-art descriptions and further reading.

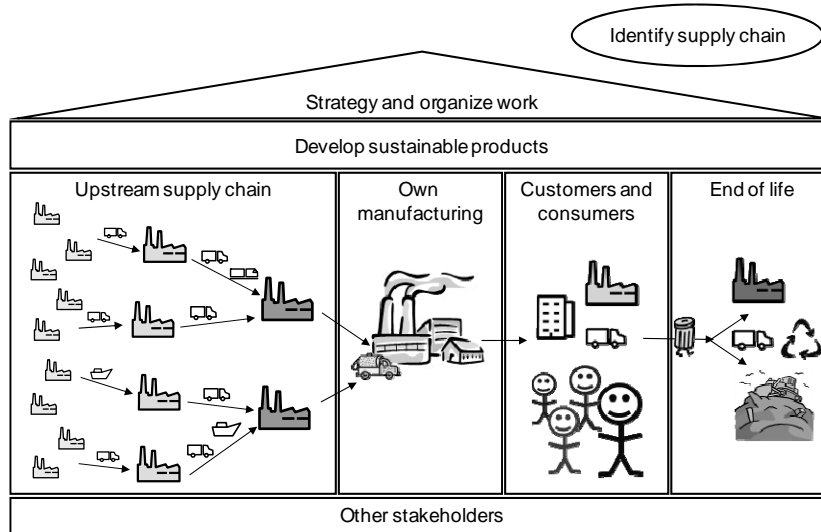


Fig.1: TOSCA sustainability framework - Activities in the work with sustainability in supply chains

The Sustainable development part of the framework informs about what

3.1 About SCA

SCA is a global hygiene and paper company that develops and produces personal care products, tissue, packaging solutions, publication papers and solid-wood products. Sales are conducted in some 100 countries. SCA has many well-known brands, including the global brands TENA and Tork.

3.2 Sustainability strategy at SCA hygiene business – taking responsibility at every step

Since the early 1990s, SCA has pursued a structured way of working to develop environmentally sound hygiene products. The directions in this work are based on the SCA sustainability policy. The strategy for the environmental activities in the SCA hygiene business have a life cycle perspective, that encompasses sourcing, production and development, as well as the products that are ultimately delivered to customers and consumers.

Activities are based on four key areas in the product life cycle:

Active sourcing requires SCA to actively seek safe and environmentally sound, meeting SCA demands. Manufacturing of raw materials accounts for the bulk of the environmental impact caused by personal care products. Accordingly, collaboration with suppliers is of the utmost importance and all suppliers must adhere to SCA's strict standards. Suppliers are reviewed on a regular basis to assess quality, product safety, environmental performance and social responsibility through recurring audits.

Clean production involves the efficient use of resources and continuous reductions in energy and waste in the Group's production sites. The pulp and paper mills also strive to reduce water usage and organic content.

Sustainable solutions are about innovative, safe and environmentally adapted products and services. SCA's innovations are based on insight into the daily needs of consumers and customers. The environmental impact of products is evaluated using life cycle assessments (LCAs). The company sees that the use of LCAs makes it possible to measure any improvements, to enhance the product's current environmental performance and to prepare for future challenges. The results from the LCAs help to identify a product's improvement potential, thus facilitating the

best possible environmental choice with respect to supplier selection, product development and continuous improvements throughout the value chain. LCAs are an integrated part of SCA Personal Care's product development process. Using life cycle assessments, SCA gains knowledge of the environmental impact of products over a period of time.

After-use handling is about reducing waste after use of the product. This is a vital issue and one in which product development plays a key role. Due to their energy content, hygiene products are also beneficial in the incineration process, which means that they are even put to good use in the final phase of their life cycle.

3.3 The TOSCA project within the SCA hygiene business

Within SCA, the internal parts of the TOSCA project have focused on strengthening the work with suppliers regarding environmental sustainability. The work involves defining and establishing a way of working with suppliers, together with systems and tools in place for measurements and follow-up. With this implemented way of working, the aim is to improve the environmental performance level of the raw material suppliers of the company. The way of working describes tasks, the roles and responsibilities and includes general procedures for how to work with the suppliers.

3.3.1 General procedure

The general procedure defined in the project supports the purchasing organisation in their work with the suppliers.

Firstly, the supplier is informed of the expectations that SCA has. The expectations are described in a Supplier standard, which includes requirements for quality, product safety, environment, chemicals and code of conduct. The environmental demands on suppliers are based on SCA sustainability policy and targets. They concern:

- Environmental management systems
- Continuous environmental improvements, with focus on energy and carbon
- Reporting of performance through environmental questionnaires
- Specific requirements on suppliers of pulp and fibre based materials

Secondly, a baseline is established for the supplier's current environmental status. The evaluation is made using different tools, such as supplier audits and environmental data collection.

Based on the baseline result, feedback can be given on needed or potential improvements. Further on, follow-up on progress are done on a regular basis, which can contain updates on requested actions and improvements.

The approach used in the project is to integrate environmental considerations into the existing way of working with suppliers, and also to use and adapt established system and tools. For this work it is necessary to work cross-functional and interdisciplinary in SCA, in order to open up communication paths and achieve cooperation.

4 Conclusions

The response and reactions from suppliers so far has been very positive. It is seen as an opportunity to learn, and the feedback has resulted in constructive improvement discussions and activities. From an internal point of view it has created a good and fruitful collaboration between involved functions. It can, however, be noted that since this is a new way of working, it requires training and additional resources, especially during starting-up phase.

Often, the relationship between a supplier and a customer has a history spanning over many years, and in our experience the best results are reached when there is a mutual understanding on expectations and plans on both product and its future development and company performance in many aspects.