

## Eco-Effective Products: A matter of Co-operation between Management and Design

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Companies have to consider environmental aspects more and more in their activities and to improve their environmental performance. Products - and therefore their design - take an important part in this task.

In praxis, the importance of eco-design is increasingly recognised. Still, the products are hardly more environmentally friendly than before. This shows also a recent empirical study Frei and Waser (1998) carried out with 40 from an environmental point of view leading Swiss companies, producing electrical and mechanical products: Despite a high environmental consciousness, there are hardly any environmental orientated goals formulated and almost no company showed a design process with integrated ecological aspects, not even ISO 14001 certified companies. (fig. 1)

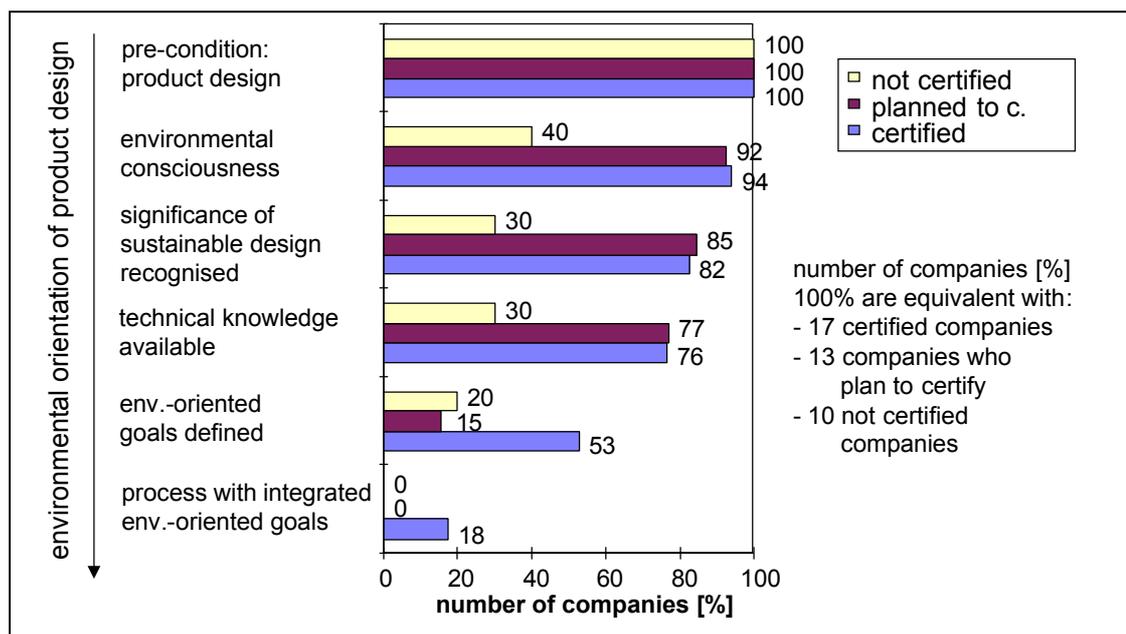


Fig. 1: Missing environmental orientation of product design in practice (Frei and Waser 1998).

The reason for this situation is a gap between environmental management and product design: To be able to fully integrate environmental aspects in product development, the designer has to know the environmental impact of the product and environmentally orientated requirements of the stakeholders and the company. Based on this knowledge, the designer needs the co-operation with product management to find the most eco-effective solution.

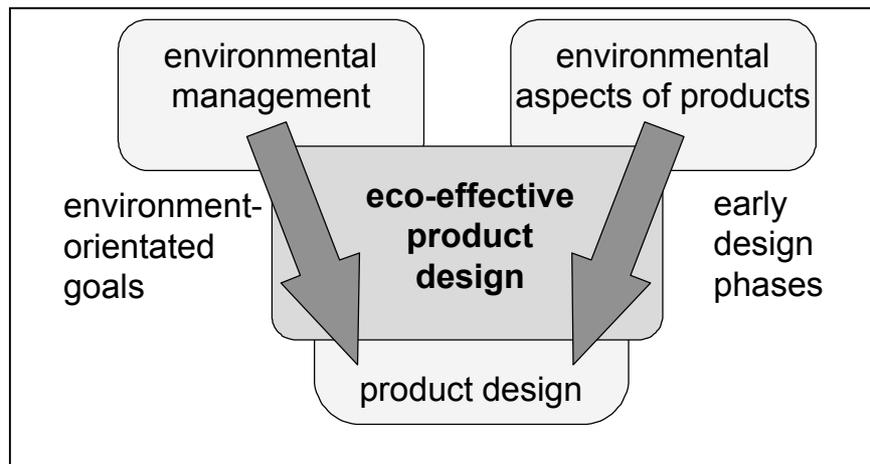


Fig. 2: The concept of eco-effective product design (Frei 1998).

The concept of eco-effective product design systematically integrates these environmental aspects into the early design phases (fig. 2, Frei 1998). The environmental impact of the product, as well as the perception of this impact by stakeholders and the company, are taken into account. Eco-effective product design, therefore, builds a bridge between environmental management and product design.

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