

## Ecodesign maturity model: a management framework to support ecodesign implementation into manufacturing companies - DTU Orbit (07/08/2016)

### **Ecodesign maturity model: a management framework to support ecodesign implementation into manufacturing companies**

Over the last few decades, ecodesign has emerged as a promising approach to integrate environmental concerns into the product development and related processes. Ecodesign aims to minimize environmental impacts throughout the product's life cycle, without compromising other essential criteria such as performance and cost. Despite the potential benefits of ecodesign and the existence of several tools and techniques for product design, the actual application of ecodesign has not reached companies worldwide, mainly due to difficulties in ecodesign implementation and management. This paper introduces the ecodesign maturity model, a framework aimed at supporting the ecodesign implementation process. Based on a diagnosis of the current maturity profile of a company's product development and related processes regarding ecodesign implementation, the model proposes the most suitable ecodesign practices and improvement projects to be applied, by adopting a continuous improvement approach for process improvement. The model is thus intended to support ecodesign managers in their deployment of strategic and tactical roadmaps for ecodesign implementation. The paper discusses the main concept of the model and the results of its application into a large manufacturing company. In addition to the academic benefits related to the systematization of the ecodesign knowledge, the application of the model is shown to provide companies with: a benchmarking of ecodesign practices; an assessment of strengths and weaknesses; and a common language and a shared vision for ecodesign implementation. © 2013 Elsevier Ltd. All rights reserved.

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