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**DESIGN FOR SUSTAINABILITY (D4S): TOWARDS
ADVANCED PRODUCT CONCEPTS**

Han Brezet^{1*}, Sacha Silvester²

*¹Design for Sustainability (DfS) program, Delft University of Technology, the Netherlands and
IIIEE Institute, Lund University, Sweden,*

²Design for Sustainability (DfS) program, Delft University of Technology, the Netherlands

Abstract

After a focus on eco(re-)design methodology the Design for Sustainability (DfS-) program of the Delft University of Technology today aims at renewable energy and entrepreneurship for sustainable product innovation. Emerging technologies in the field of renewable energy, such as flexible photo-voltaic solar cells and human power techniques are promising solutions for application in portable electronic products and new mobility means. For the longer term fuel cell technology is being considered as the potential main contributor to the decarbonization and detoxification of product-systems. The industrial design engineer plays a crucial role in combining the potentialities of the new technologies and the required functionalities of the –sustainable- products and services of the future. The full integration of these new technologies into products and the development of a related appropriate methodology is the challenge for Delft’s life cycle engineering and design program, including the formulation of design rules, assessment metrics and benchmarking approaches. Another challenge is to find appropriate niche product/service/market combinations where sustainable innovations can create an added value for the users, other actors in the life cycle, and society as a whole. Here, the new drivers such as legislation based upon producers’ responsibility for products play a crucial role. Within UNEP’s ‘D4S’ program, TUDelft, the IIIEE Institute of Lund and others work together in diffusing new insights in this.

Keywords: Design for Sustainability (DfS), ecodesign

* Author to whom all correspondence should be addressed: e-mail: j.c.brezet@io.tudelft.nl,
s.silvester@io.tudelft.nl