



KEYNOTE



Better – but Good Enough?

Quantifying the Relative and Absolute Sustainability of Our Technology and on the Challenges We are Facing

By Prof. Michael Hauschild

Abstract

Sustainability is gaining prominence among the priorities of many large companies and as engineers we have taken the eco-efficiency challenge, optimizing the functionality and minimizing the negative environmental impacts of our products and technologies. Although impressive improvements in efficiency can be demonstrated in many local cases, increases in population, affluence and consumption create an opposite trend that we need to factor in when we are discussing sustainability of our technological developments in an absolute sense. The talk will discuss absolute boundaries for environmental sustainability, metrics for gauging our solutions against these boundaries and the need and possibilities of expanding our focus from efficiency to effectiveness.

Biography

Michael Hauschild is a professor and head of the Division for Quantitative Sustainability Assessment at the Department of Management Engineering of the Technical University of Denmark in Copenhagen. He has been overall responsible for the department's Life Cycle Engineering research activities, teaching and professional training for more than a decade. He was a co-receiver of the Great Environmental Prize of the Nordic Council of Ministers 1997 for his work with development and documentation of the Life Cycle Impact Assessment (LCIA) of the Danish Environmental Design of Industrial Products (EDIP) programme. He held the chair of the SETAC-Europe task force on ecotoxicity assessment in LCIA 1998-2002 and the UNEP/SETAC Life Cycle Initiative task force on Assessment of Toxic Impacts in LCIA 2002-2006. He has been a member of the Editorial Board of The International Journal of Life Cycle Assessment since 1998, subject editor for LCIA of human and ecotoxic impacts since 2008 and subject editor on LCA for the Journal of Industrial Ecology since 2010. In addition, he is associate editor for CIRP Journal of Manufacturing Science and Technology, member of editorial boards for the CIRP Annals - Manufacturing Technology, International Journal of Sustainable Manufacture, and International Journal of Sustainable Engineering. He was elected member of the SETAC-Europe LCA Steering Committee in 2006 and appointed to the LCIA Method Developers Advisory Group to the European LCA Platform project of the EU Commission same year. Furthermore, he is founding Chair of the Nordic Life Cycle Association, NorLCA aimed at dissemination of life cycle thinking in the Nordic countries.