

**Type of presentation:**

Short presentation

**Abstract title:**

Information Society and Sustainability - Possibilities and Limits for the Application of the LCA Method

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**Abstract:**

The new information and communication technologies are bringing both opportunities and risks for the goal of sustainable development. Our unit analyses these interrelationships in an interdisciplinary team. The main questions thereby are: What can the digital revolution contribute to sustainable development? Which new dangers for humans and the environment could come out of it? One of the instruments used by our group is LCA. Thereby, with the goal of using the opportunities and minimizing the risks,

- we develop new applications in the fields of environmental and geo-informatics (especially in connection with satellite-based remote sensing),
- we analyse the dematerialization potential inherent in substituting information services for products and telecommunication for traffic,
- we perform studies on technology assessment, especially in the field of information technologies,
- we analyse material flows, especially as regards their interaction with information flow and information processing, including the problem of electronic waste.

Possibilities as well as limits of the use of LCA for answering the above raised questions will be highlighted with examples from ongoing research at EMPA. Future research areas and open questions for a more appropriate use of LCA in the area of the modern information society will be raised and discussed.