Populating the life cycle perspective
... about new methods for analysing social/organisational dimensions of product chains for management studies ...

WHY LIFE CYCLE METHODS NEED ‘POPULATING’?
The strength of the life cycle perspective is that it takes the whole product chain into account so that the shifting of environmental problems along the chain can be avoided. A weakness with conventional life cycle assessment (LCA) is that its enviro-technical analysis does not easily identify actors and their scope of action. However, it is actors and organisations that enable product flows, like the firemen passing water buckets.

FIVE NEW METHODS
Here we present the outcome of a decade of research: a portfolio of life cycle methods for management studies. Performed case studies are listed in the parentheses.

1. Actor LCA
   - An LCA based method for studies of actors’ environmental roles & influence (buildings, food).

2. Product chain organisation study
   - A management based method for studies of environmental management in one product chain (diaper fluff, certified cocoa supply from Ghana).

3. Global product chain organisation study
   - A management based method for studies of environmental management in a large number of product chains simultaneously (earth metals in electric vehicle batteries/magnets, metal packaging).

4. LCA nodal point organisation study
   - A management and LCA based method for studies of environmental management performed by one important actor along a product chain (e.g., properties, bakeries).

5. New approaches to social LCA
   - New approaches for assessment of emission-related social impacts in studies of product chains (airbags, catalytic converter, gold wedding ring).

NEW MANAGEMENT APPLICATIONS
Populated LCA methods can be used for analysis of and improving efforts in different organisations’ sustainability work. They can be alternatives to or complement existing approaches found under labels such as:
- life cycle management
- supply chain management
- operations management
- corporate social responsibility

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