

Contents

Part I Methodological Developments

| | |
|---|----|
| Beyond Production—the Relevance of User Decision and Behaviour in LCA | 3 |
| Johanna Pohl, Paul Suski, Franziska Haucke, Felix M. Piontek and Michael Jäger | |
| Ecological Assessment Based on Environmental Product Declarations | 21 |
| Tobias Brinkmann and Lukas Metzger | |
| Social Sustainability as a Target Figure in Life Cycle Assessment: Development of a Catalogue of Criteria for Measuring the Social Dimension | 33 |
| Claudia Hösel, Christina Hesse and Rico Pestinger | |

Part II Mobility

| | |
|---|----|
| Comparing Carbon Performances of Mobility Services and Private Vehicles from a Life Cycle Perspective | 47 |
| Mara Neef, Tina Dettmer and Liselotte Schebek | |
| Sustainability Impacts of Mobility as a Service: A Scoping Study for Technology Assessment | 61 |
| Rikka Wittstock and Frank Teuteberg | |
| Dynamisation of Life Cycle Assessment Through the Integration of Energy System Modelling to Assess Alternative Fuels | 75 |
| Simon Pichlmaier, Anika Regett and Stephan Kigle | |

Part III Energy

External Costs as Indicator for the Environmental Performance of Power Systems 89
Lukas Lazar and Ingela Tietze

A Spatially Explicit Life Cycle Assessment Tool for Residential Buildings in Lower Saxony: Development and Sample Application 103
Ann-Kristin Mühlbach, Michael W. Strohbach and Thomas Wilken

Part IV Production and Logistics

Comparative Life Cycle Assessment Study on Cyanobacteria and Maize as Feedstock for Polylactic Acid 117
Maresa Bussa, Cordt Zollfrank and Hubert Röder

Assessment of Sustainability on Dairy Farms in Central Germany Based on Energy and Nutrient Balances 129
Clara Heider-van-Diepen

Carbon Footprint Accounting for General Goods—A Comparison 139
Daniel Hülemeyer and Dustin Schoeder