

LIFE CYCLE MANAGEMENT APPLIED AT DIFFERENT SCALES: SECTORIAL, TERRITORIAL AND HYBRID APPROACHES.

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Session description

Input-output LCA offers a coherent framework for the environmental assessment of production and consumption at the macro-level. It can be implemented for economy-wide assessments, for assessment of product groups and consumed commodities. However, certain bottlenecks still prevent the effective use of this method for decision-support:

- The low sector/product resolution often limits the analysis of specific improvement measures. Therefore, input-output data need to be combined with more detailed information on production processes, which can be provided by process LCA. Such hybrid LCA can offer extended capabilities in scenario analysis.
- The low spatial resolution of IO-data limits their relevance at regional or local level. Based on regionalization approaches and implementation of regional impact assessment methods, a better consideration of the regional context could be achieved.
- Environmental data linked to input-output tables often show significant gaps.
- Limited use of economic and socio-economic data prevents the consideration of all dimensions of sustainability.

This session is open to all contributions reducing these limitations:

- Coupling of input-output with other modelling approaches to develop economy-wide scenarios (e.g. consumption scenarios including rebound effects)
- Regional input-output LCA
- Hybrid LCA applications (agriculture, energy, construction, transport, etc.)
- Life cycle sustainability assessments in the input-output framework.

Keywords

Input-output LCA, hybrid LCA, regional LCA, rebound effects, scenario analysis.

Session format (please describe your choice)

Presentation from the lectern followed by moderated questions (and panel discussion)

Chair and co-chair biography

Vanessa Zeller, post-doc researcher (chargée de recherche)



Vanessa holds a degree in Environmental Sciences. After her studies, she worked for the German Biomass Research Centre. In 2012 she joined the research group 'Recycling and Environment' at the Université libre de Bruxelles (ULB) and worked in a research project about the life cycle assessment of the Walloon wood sector. In her PhD she developed a regional model for the evaluation of environmental impacts from production and consumption. Since October 2016 she works at a multidisciplinary research unit IGEAT at ULB. Her current research project is about the management of regional waste flows.