Advancements in life cycle impact assessment and footprint method development

CHAIRS: Tomas Rydberg

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In the last few years, several footprint concepts have been developed and the environmental footprints concept has obtained an increasing interest by both the scientific and political communities. Amongst the footprint, the level of methodological development is quite different. This session gives a platform for impact characterization frameworks and models showing latest developments in typical and new impact categories, with a specific focus on integrated assessment towards endpoint indicators and environmental sustainability assessment. Endpoint methods potentially enable balancing and integration of several impact categories such as land use, ecotoxicity, eutrophication, etc in a reduced number of endpoints and approaches are developed towards a single endpoint. In spite of the limitations of models uncertainty or data availability, a strong effort is done currently to improve the link of anthropogenic actions with impacts at the endpoint level for both ecosystem and human health. Regarding biodiversity damages, LCA case studies assessing damage on aquatic or terrestrial biodiversity and ecosystem services using existing LCIA methods, and results supporting the improvement of the framework of biodiversity modelling in LCIA are welcome. Special aspects such as: spatial differentiation, multi-stressor impacts, linking these new LCIA methods to inventory schemes, integrating risk assessment and LCIA models, representing uncertainty and communicating LCIA results to stakeholders (e.g. as footprints) will be additionally discussed. Progress in frameworks, models and case studies that allow for the integrated assessment of impacts on humans and/or ecosystems are welcome, especially if mutual learning, capitalisation of knowledge and interaction between the approaches taken in LCA and other field (e.g. RA) are presented. The goal of this session is to present original papers which address impact assessment modelling, enhancing the methodology for assess impacts at endpoint and highlighting research needs towards increased robustness and comprehensiveness.

Keywords: LCIA, impact categories, footprint, integrated assessment

SESSION TYPE: Platform, Poster Spotlight, Poster and Poster Corner

ADVISORY GROUP: Life-Cycle Assessment Advisory Group (Europe)