



Application of Environmental Footprint in Swedish industry – learnings from case studies

In this poster we provide insights, preliminary findings and expected outcomes from the ongoing project “Environmental footprint in Swedish industry – increased understanding and implementation”. The overall aim of the project is to make businesses, authorities and the public sector in Sweden aware of product-related policy development based on Environmental Footprint at the EU level. Furthermore, the aim is to make visible and clarify the consequences of proposed methodology choices in Environmental Footprint to better understand what effects an implementation can have in the Swedish industry.



Methods

Two case studies are carried out within the project. One case study has been focused on modelling the impact on climate change with focus on biogenic carbon in an interlinked product systems and in long living products. The case study is managed by IVL. SSAB participates as case industry, having several different types of biogenic carbon flows that are relevant to include, for example carbon included in the final product.

The other case study has been focused on better understanding the consequences of implementing the circular footprint formula (CFF), which is part of the Product Environmental Footprint (PEF) framework, within the automotive industry and with focus on materials used in batteries. The focus arises from the interpretation that the proposed Battery regulation, will require that the PEF method and product environmental footprint category rules (PEFCR) for batteries should be followed. RISE leads the case study which includes several industries: Volvo Car Corporation, Högånäs AB and CEVT.

Preliminary findings

Application of the PEF methodology to model biogenic carbon in interlinked product systems:

- Testing the PEF methodology on the specific case shows that there is room for interpretation on how to handle biogenic carbon flows in the material, in for instance recycled material entering the system and in material leaving the system.

Application of the Circular Footprint Formula within the automotive industry:

- By testing the CFF in the automotive industry, challenges in interpreting how pre-consumer scrap should be handled has been identified, and suggestions for clarifications have been specified.
- Limited data availability for selected materials has been identified, in particular in terms of quality parameters and emission factors for pre-consumer and post-consumer scrap.

Expected outcome of the projects

Application of the PEF methodology to model biogenic carbon in interlinked product systems:

- Increased knowledge of the PEF methodology and the modelling of biogenic carbon in products. Both long- and short living products are included in the specific case study.
- Identification of gaps in the guidance provided.
- An understanding of the different methodological choices and the consequences on the climate change results.

Application of the Circular Footprint Formula within the automotive industry:

- Increased knowledge of the implications of using the CFF in Swedish automotive industry.
- Suggestions and recommendations for how PEF guidelines, with focus on CFF, can be clarified to avoid misinterpretations.
- Evaluation of the feasibility of using the CFF in existing LCA software.
- Evaluation of implication of using CFF compared to currently used method(s), e.g., using the cut-off method for manufacturing and end-of-life allocation.

Capacity to manage future regulations based on Environmental Footprint.

Contribution to improved Environmental Footprint methodologies.

Increased network, collaboration and knowledge exchange between actors to manage Environmental footprint.

Want to know more?

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