

What is LCA and PEF?

What is LCA?

- "compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle" (ISO 14040:2006)
- "From history, we learn that it is not realistic to expect LCA to deliver a unique and objective result. It should not be regarded as a single unique method; it is more fruitful to consider it **a family of methods.**" (Ekvall 2020)

SVENSK STANDARD SS-EN ISO 14040:2006

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Miljöledning – Livscykelanalys – Principer och struktur
(ISO 14040:2006)

Environmental management – Life cycle assessment –
Principles and framework
(ISO 14040:2006)

SVENSK STANDARD SS-EN ISO 14044:2006/A1:2018

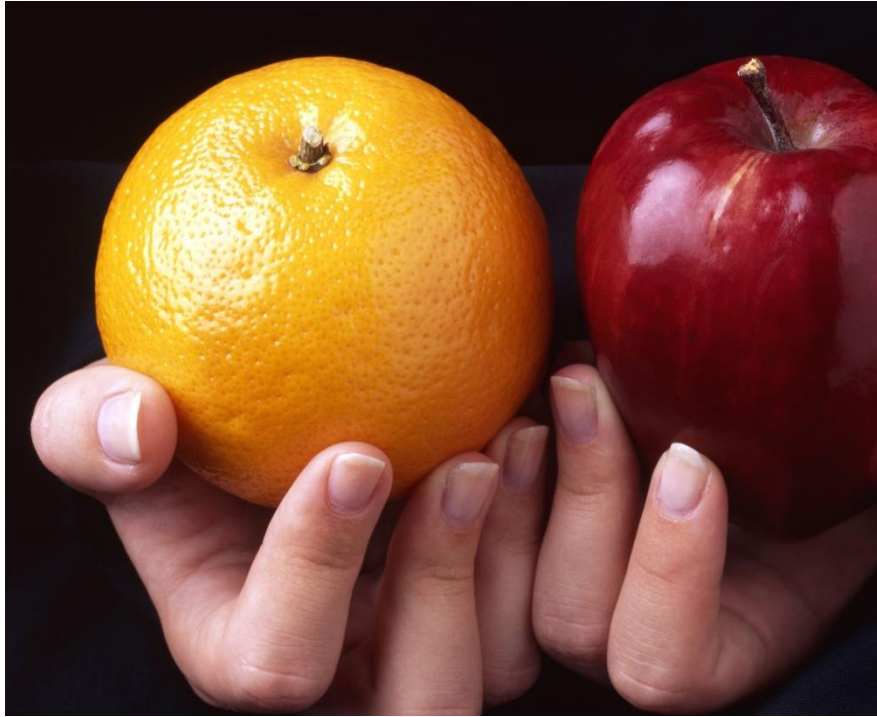
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Miljöledning – Livscykelanalys – Krav och vägledning –
Tillägg 1 (ISO 14044:2006/Amd 1:2018)

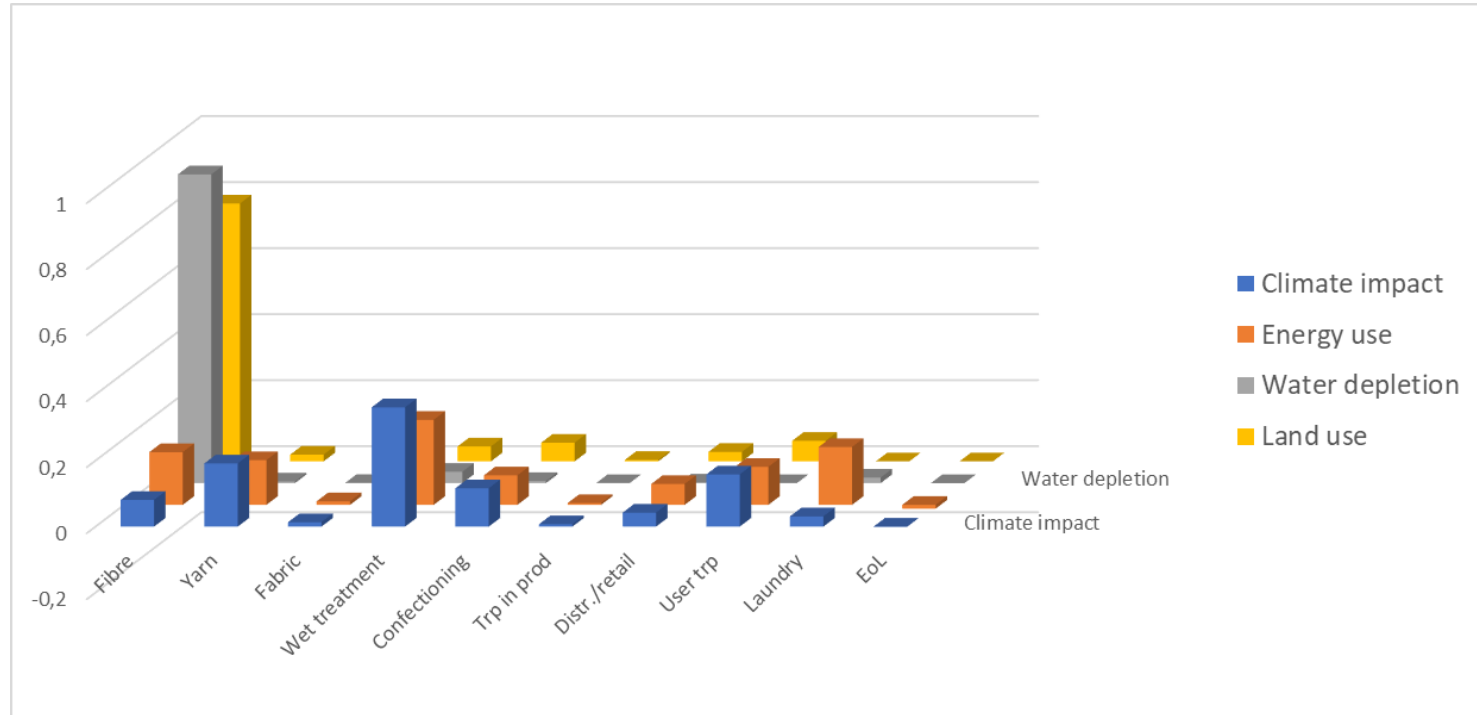
Environmental management – Life cycle assessment –
Requirements and guidelines –
Amendment 1 (ISO 14044:2006/Amd 1:2018)

LCA – comparing apples and oranges



- LCA makes it possible to compare products/services with different specifications by focusing on utility through a functional unit (FU)
- FU provides “quantified performance of a product system for use as a reference unit” (ISO 14040).
- FU e.g.:
 - snack, fruit, approx. 150 g

LCA – different environmental impacts along the life cycle



Consequences of ISO LCA characteristics

- When performing LCAs according to ISO 14040/44 there are great levels freedom when modelling
 - High flexibility means you can study anything – you simply need to be transparent
 - Excellent for posing research questions
 - High flexibility results in different assumptions are made in similar studies
 - Poor comparability between different studies – even if the product is identical

Aim of PEF

Improve the environmental performance of products and services in the European market through a combination of market pressure and policy instruments

What is PEF?

- Commission recommendation with annexes published 16 December 2021
 - “general method to measure and communicate the potential life cycle environmental impact of a product as laid down in Annex I”
- PEF is simply the LCA family member of the EU
 - “Product Environmental Footprint: result of a Product Environmental Footprint study based on the Product Environmental Footprint method.”



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of 16.12.2021

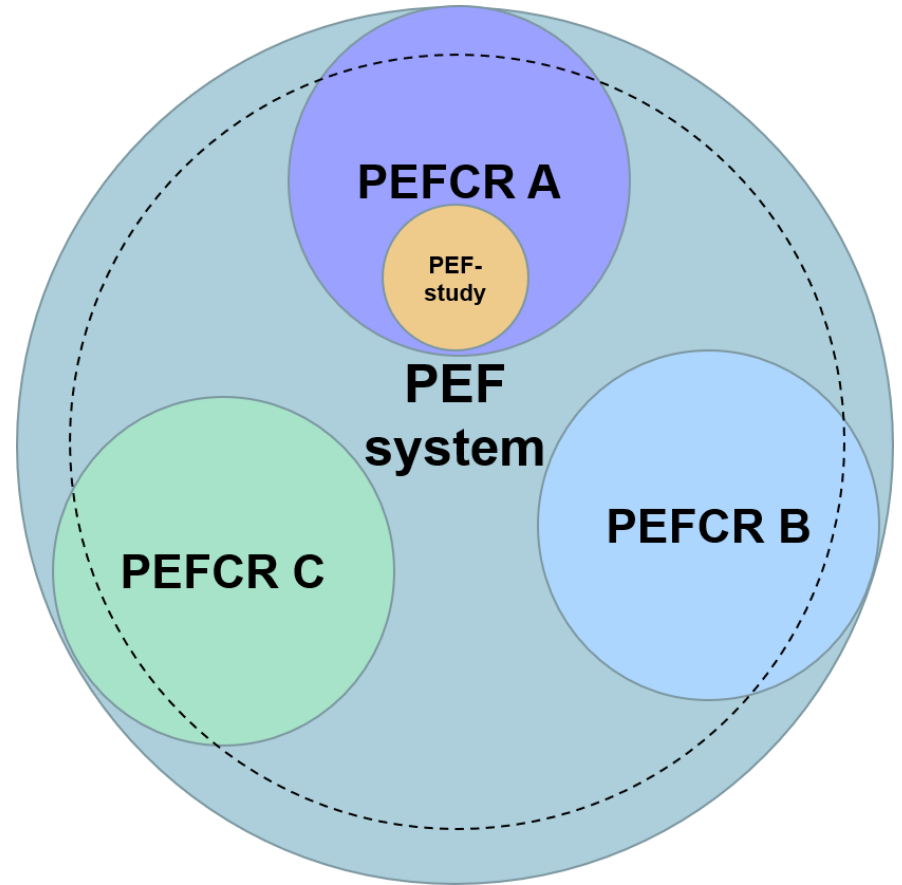
on the use of the Environmental Footprint methods to measure and communicate the life cycle environmental performance of products and organisations

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Elements of PEF

- Annex 1: PEF method
 - How to perform a PEF-study
- Annex 2: Development use of PEFCR
 - PEFCR – Product Environmental Footprint Category Rules





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