



Product Environmental Footprint method

DG ENV

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Environmental Footprint Initiative: Why?

For consumers

Choosing the right product and understanding labels



For green producers

Fair competition against false green claims



Unlock opportunities for the circular and green economy

More harmonised approach for environmental information

Provide reliable and relevant environmental claims

Life cycle assessment of products

Impacts on resource availability:

Extraction/use of physical resources:

Pressures via emissions to air, water, soil:

Impacts on human health and environment:



Energy availability



Energy extraction



Material availability



Material extraction



Land productivity



Land use / conversion



CO₂, Methane, ...



Climate change



Phosphate, NO_x, ...



Eutrophication



Cadmium, POPs, ...



Toxic Pressure

PEF: 16 impact categories covered



Normalisation
How big is the contribution of the evaluated system to the environmental impacts, e.g. expressed in person equivalents per year?



Weighting
How much do the environmental impact categories matter, e.g. does climate change overrule everything else?



EF Single Score



Additional environmental information (e.g. currently biodiversity or microplastics)

Challenges of LCA so far, PEF response

LCA used across many industries, but incompatible schemes, with proliferation of labels and diverging claims. Hence, the PEF is to ...

» **Ensure reproducibility, comparability**

- *Narrow down LCA method overall* → PEF/OEF Methods, plus more specific per product-category / sector → PEFCR/OEFSR
- *Define scope and functional unit for comparisons* within product categories
- *Require common EF-compliant background data* with common interoperable data set format and common elementary flow list, instead of generic data quality and consistency requirements

» **Provide clear-cut decision support**

- Materiality Approach (focus where it counts)
- Prescribe impact methods instead of 10-20 impact indicators from free-to-choose LCIA methods
- Provide weighting factors to calculate PEF single score
- Reporting template, communication requirements

» **Improve reliability with minimum reviewer/verifier qualifications, verification scope details**

Commission Recommendation 2021/2279 on the use of the Environmental Footprint methods to measure and communicate the life cycle environmental performance of products and organisations

What is needed for a PEF study?

Input required:

- „**Rules**“: PEF Method as per Recommendation 2021/2279 or applicable PEFCR document (if available), EF-compliant data guide
- „**Data**“: EF 3.0 secondary data sets describing average situation, primary data of own operated processes.
- „**Expertise**“: In-house expert to collect and consolidate primary data of own operated processes or external consultant (as support), external independent verifier of PEF study

» Output:

- **PEF study report**: Results up to the EF single score, comparison with benchmark (with PEFCR only), e.g. for designing ESPR requirements or as basis for Ecolabel criteria
- **Verification report and declaration**: Basis for B2B and B2C communications, incl. green claims.

What is a PEFCR?

Product Environmental Footprint Category Rules (PEFCR):

- » Commission & industry collaboration, stakeholder scrutinized, specific rules per product category (PEFCR) **enabling reliable product comparisons based on equivalent functional** performance of the products
- » **Rules relate to relevant activities under operational control of the producers** (e.g., used fabric amount, fuel and electricity use, waste types and amounts generated, packaging type and amount used, specific emissions, ...)
- » **Upstream and downstream activities** (e.g., materials production, transports, packaging recycling) use available secondary background data sets, but supplier-specific data can be used and is encouraged
- » Definition of a **representative product per product (sub)category**: EF benchmarks

Additional applications if in compliance with a PEFCR/OEFSR, beyond EF method

- » Comparison and comparative assertions against the benchmark
- » Comparisons and comparative assertions among products
- » Identification of significant environmental impacts common to a product group/sector
- » Reputational schemes giving visibility to products/organisations that calculate their environmental performance
- » Potential Green procurement (public and corporate)

PEFCR for Apparel and Footwear

- **What it is:** Apparel or footwear product specific, life cycle-based rules that complement general methodological guidance for PEF studies, by **providing further specification at the level of a specific product category** to meet the consumer's specific needs, as defined per sub-category
- **Scope:** The **full life cycle** (cradle to cradle) for apparel and footwear sold in the European Union + UK + EFTA market.
- **Why:** PEFCR ensures that the calculated environmental impacts from the sector are **comparable**, because they follow the same methodology. This creates **reliable results** and a **level of playing field**
 - *Calculating environmental impacts (through LCA) is complex and time consuming*
 - *There are many methodological considerations to be taken*
 - *Lack of reliability of results creates room for greenwashing*

Representative products

T-shirts

Shirts and blouses

Sweaters and mid layers

Jackets and coats

Pants and shorts

Dresses, skirts and jumpsuits

Leggings, stockings, tights and socks

Underwear

Swimsuits

Apparel accessories

Open-toed shoes

Closed-toed shoes

Boots

Each sub-category, key products were identified based on market shares of apparel and footwear products sold in Europe (EURATEX data)



PEFCR for Apparel and footwear

- **Primary data** are required to perform the analysis
- Environmental footprint for **final product**: not applicable to only the raw materials, and it covers the whole life cycle
- **Hotspot analysis**: most relevant impacts, life cycle stages
- **Verification**: PEFCR is verified by a review panel with experts in LCA and the industry.
- **It is not a policy tool**: It supports the calculation of the Environmental Footprint along the entire value chain. It is not a label, it does not set minimum requirements

Limitations

- Microplastics are not yet covered by the PEF methodology
- PEFCRs do not allow for differentiation between the impact of a new or second hand item
- Methodology to measure the duration of service is highly debated
- The current toxicity impacts do not cover the full impacts of chemicals on humans and ecosystems, which are covered by chemical legislation and other methodologies
- Duration of service > the TS currently evaluation inclusion of “emotional durability

Thank you



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