Public consultation questionnaire on a potential legislative proposal on substantiating green claims

Background document

1. THE ENVIRONMENTAL FOOTPRINT METHODS

The Product and Organisation Environmental Footprint (PEF/OEF) methods are annexed to the European Commission Recommendation on the use of common methods for measuring and communicating the life cycle environmental performance of products and organisations[1].

PEF and OEF are Life Cycle Assessment methods. Accordingly, environmental performance is calculated taking into consideration the environmental impacts throughout the value chain, from the extraction/ growing of resources to the end of life of the product or the product portfolio of an organisation, respectively. The methods allow calculate environmental impacts through 16 "impact categories".:

Before considering developing a new method, the Commission carried out an in-depth analysis of the most widely applied methodologies[2,3]. The objective of this analysis was to assess whether the existing methodologies are "good enough" to achieve a number of policy objectives, such as: improvement of resource efficiency along the value chain; definition of environmental performance benchmarking; improvement of design for environment; reproducibility of results; and comparison of environmental performances. The analysis[4] indicated that none of the existing methodologies could be used as such, and a need to fill some methodological gaps.

The PEF an OEF methods were developed by the European Commission's Joint Research Centre (EC-JRC) using existing methods and standards as a basis[5] and

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1 2013/179/EU

2 For products the methodologies assessed were: ISO 14044 (Environmental management -- Life cycle assessment -- Requirements and guidelines), ISO 14067 (carbon footprint of product), ILCD (International Reference Life Cycle Data System), Ecological footprint, Product and Supply Chain Standards Greenhouse Gas Protocol (WRI/ WBCSD), French Environmental Footprint (BPX 30-323), UK's Product Carbon footprint (PAS 2050), ISO 14025 (Environmental Product Declarations).

3 For organisations the methodologies assessed were: ISO 14064 (Greenhouse gases -- Part 1, 2 and 3), ISO/WD TR 14069 (GHG - Quantification and reporting of GHG emissions for organisations), ILCD (International Reference Life Cycle Data System), Corporate Accounting and Reporting Standards Greenhouse Gas Protocol from WRI/ WBCSD, Bilan Carbon, DEFRA - Carbon Disclosure Project (CDP), CDP water, Global Reporting Initiative (GRI).

4 The full report is available at: http://ec.europa.eu/environment/eussd/pdf/Deliverable.pdf

5 *Analysis of Existing Environmental Footprint Methodologies for Products and Organisations: Recommendations, Rationale, and Alignment*, JRC, 2011.

then were further improved during the Environmental Footprint pilot phase (see below). One important new feature of the methods is that they enable the possibility of comparing the environmental performance of products. This feature requires the development of rules specific to each product category, called Product Environmental Footprint Category Rules (PEFCRs) and of sector-specific rules, called Organisation Environmental Footprint Sector Rules (OEFSRs).

A calculation based on the PEF/ OEF methods gives quantitative information on the performance of the product or organisation. This result is not comparable to results of other products/ companies (for instance, product X has a lower impact than product Y). This is due to the fact that the PEF/ OEF methods leave some methodological and data choices to the user. These choices are available in order to enable the application of the PEF/ OEF methods to any product or organisation.

Product Environmental Footprint Category Rules (PEFCRs) define a benchmark, which corresponds to the environmental performance of the average product on the EU market. The benchmark is defined per environmental impact and for environmental overall performance (single score). In this case, it is possible to compare the performance of a specific product to the benchmark of the same product category. PEFCRs also identify which are the most relevant environmental impacts, life cycle stages (e.g. manufacturing or use) and processes (e.g. production of ingredients – wheat grain) for the product category.

Similarly, OEFSRs identify the most relevant environmental impacts, life cycle stages (e.g. manufacturing or use) and processes (e.g. smelting) for the product portfolio of the organisation. OEFSRs currently do not contain benchmarks, but may define comparable indicators (e.g. results divided per total revenue).

The development of PEFCRs and OEFSRs was tested during the Environmental Footprint pilot phase, alongside other developments needed to reach the full potential of the methods. Improvements included the improved availability of high quality life cycle data; setting-up a cost-effective, standardised verification system, and a transparent normalisation and weighting system.

2. THE ENVIRONMENTAL FOOTPRINT PILOT PHASE

In November 2013, the Commission, started a pilot phase through an open call for volunteering stakeholders from within and outside of the EU. The pilot phase had the following main objectives:

1. To test the implementation of the Product and Organisation Environmental Footprint (PEF/ OEF) methods adopted in 2013 into category rules and sector rules (respectively called PEFCRs, and OEFSRs).
2. To develop a "benchmark" for each product category, where the benchmark is the quantified environmental performance (Environmental Footprint profile) of the average product sold in the EU. The benchmark is available per impact category (the methods address 16 different impact categories) and as total environmental impact (single score).
3. To test alternative verification approaches, knowing that the reliability and traceability of public information is a key element to tackle the lack of trust from stakeholders concerning green claims and labels.

4. To test alternative communication vehicles (websites, leaflets, Environmental Product Declarations, labels, bar codes, QR codes, etc.)

19 PEFCR pilots were finalised:

- food, drinks and related: beer, dairy, feed for food producing animals, dry pasta, packed water, pet food (cats & dogs), wine;

- other products: batteries and accumulators, decorative paints, hot and cold water supply pipes, household detergents, intermediate paper product, IT equipment (storage), leather, metal sheets, thermal insulation, t-shirts, uninterruptible power supply (UPS).

2 OEFSR pilots were finalised: retail and copper production.[6]

About 300 companies and business associations (from the EU and beyond) were directly involved in the technical work. More than 2000 stakeholders followed the work done during the pilot phase. Several public administrations are closely monitoring the work and some of them (e.g. in France, Germany, Italy, Switzerland) are also contributing to the technical work.

Guidance documents related to PEF and to OEF were developed to provide instructions on how to develop PEFCRs and OEFSRs during the pilot phase. These documents were regularly updated during the pilot phase to reflect agreements on methodological approaches (e.g. approach on how to identify most relevant environmental impacts, life cycle stages and processes, rules regarding data use).

The essential technical developments resulting from the pilot phase include the following features:

- application of the materiality principle "(*act where it matters*"):

- how to define a benchmark (which corresponds to the Environmental Footprint profile of the average product/ organisation on the market, also called representative product/ organisation);

- agreements on the modelling of key aspects concerning climate change, electricity, transport, infrastructure & equipment, packaging, end of life and agriculture;

- inclusion of normalisation and weighting;

- guidelines on how to include biodiversity as additional environmental information (non-LCA information);

- improvement of some impact assessment methods, with particular attention to the toxicity-related methods (human toxicity – cancer effects; human

[6] Final deliverables of the pilot phase are available on the website of the initiative: http://ec.europa.eu/environment/eussd/smgp/PEFCR_OEFSR_en.htm

toxicity – non-cancer effects; eco-toxicity freshwater[7]), defining characterisation factors based on REACH data;

- a guide on Environmental Footprint compliant datasets[8], to ensure a common approach for data (e.g. how to document changes in datasets, requirements on meta-information, modelling requirements, review requirements, etc.).

The pilot phase identified needs for further improvement of the approach on certain issues such as:

- scope definition: identifying rules for defining the right coverage/ granularity for PEFCRs and OEFSRs;

- development of an approach for defining classes of performance (the recommended approach is described in the JRC report on the PEF method[9]);

- improvement of the modelling concerning agriculture and animal products aspects (allocation of impacts).

The methodological agreements reached during the pilot phase and further improvements were included in the EC-JRC reports on the PEF and OEF methods[10].

Assessing the results of the pilot phase

An independent review of the Environmental Footprint pilot phase was conducted by experts from international organisations (UNEP), the private sector and an NGO. This report was finalised in August 2017[11] and concluded that:

- PEF and OEF are a good basis for harmonisation at EU and international level, more action is needed internationally;
- PEF and OEF are good tools for simplifying the environmental assessment and information gathering for industry and for companies in supply chains;
- Stakeholders expect that the Commission will discuss as quickly as possible with stakeholders the potential uses of the Environmental Footprint (EF) methods.
- Rules on verification are needed;
- A multi-stakeholder approach that considers existing initiatives should be continued;
- Integration into existing policies such as EU Ecolabel, Green Public Procurement and EMAS is a logical next step;
- The pilot phase created consolidated approaches to some long-debated methodological issues (e.g. end of life of products);
- There are a number of opinions on how to communicate EF information;
- There are a number of opinions on the Environmental Footprint methods, ranging from trust in its robustness to doubts on specific elements in the

7 See report: https://eplca.jrc.ec.europa.eu/permalink/JRC114227__FINAL_online.pdf
8 Find the latest version at https://eplca.jrc.ec.europa.eu/LCDN/developerEF.xhtml
9 https://eplca.jrc.ec.europa.eu/permalink/PEF_method.pdf
10 https://eplca.jrc.ec.europa.eu//EnvironmentalFootprint.html
11 Final report of the Environmental Footprint pilot peer reviewers

methods (e.g. toxicity impact categories); from appreciation of simplifications through the PEFCRs/ OEFSRs to worries about over-simplification.

During the pilot phase, pilots tested different approaches to verification. The report concluding this exercise looked at the **verification** of embedded impacts and traceability as part of the Environmental Footprint methods implementation, including recommendations on the verification of Environmental Footprint information. This report was finalised in April 2017[12].

The Technical Helpdesk for testing of Environmental Footprint rules produced a report on the **technical evaluation** of the pilot phase in April 2017[13]

The results of the testing of different **communication vehicles** for providing Environmental Footprint information, including recommendations based on tests of pilots and complementary tests decided by DG Environment was also published in a report[14]

3. DEVELOPMENTS AFTER THE PILOT PHASE

A new call for volunteers was issued in 2019. PEFCR development is ongoing for apparel and footwear, cut flowers and potted plants, flexible packaging, synthetic turf and marine fish. The development of the PEFCRs will conclude in 2022[15].

The Commission expert group on the Environmental Footprint Technical Advisory Board is giving advice and expertise to the Commission on further technical work related to the Environmental Footprint methods and the development of PEFCRs. In particular, the expert group will discuss further on the modelling of allocation of impacts. The expert group includes also two working groups:

- the Agricultural Working Group, which will discuss how to improve the modelling of agricultural processes, including biodiversity assessment;

- the Data Working Group, which deals with changes to the current EF reference package[16], defining a set of minimum requirement for software to be considered EF ready[17], exchange of models across software, data quality and review, etc.

3.1. Consulting stakeholders

Input regarding potential future uses of the Environmental Footprint methods was gathered through various channelsand covered:

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12 Final report on the verification stage, Ernst & Young 2017

13 Technical evaluation of the EU Environmental Footprint pilot phase

14 Final report on the assessment of different communication vehicles for providing Environmental Footprint information (2018)

15 https://ec.europa.eu/environment/eussd/smgp/ef_transition.htm

16 See https://eplca.jrc.ec.europa.eu//EnvironmentalFootprint.html

17 Self-declaration by software developers that the software is in line with specific elements of the Environmental Footprint framework

- stakeholders' attitudes on the importance of specific environmental information and related to the proliferation of environmental labels and initiatives;

- experience of stakeholders with environmental information (including methods and initiatives used and related experiences and costs) and misleading environmental claims,

- experience of stakeholders with the use of the Product and Organisation Environmental Footprint methods,

- potential policy uses of the Environmental Footprint methods

- A survey targeted to SMEs focused on understanding: (i) the importance of environmental issues for SMEs and their coverage by them, (ii) the demand for environmental information and how SMEs meet it, (iii) the awareness about the Environmental Footprint methods and its specificities, (iv) obstacles in using Life Cycle Assessment.

The results are available on the website[18].

3.2. Communicating to consumers

DG Environment commissioned a study[19] to understand which was the information generated based on PEF studies that would be effective in guiding consumers purchasing decisions, capture their attention and be understood. The study built on the results of the communication tests carried out during the pilot phase. It did not test any label formats.

When information is available to compare performances between similar products (a PEFCR is available), the tests found that:

- PEF information is effective in guiding choices towards more environmentally friendly alternatives independently of the format used (11.5% points more choice for better than average);

- All information elements were effective;

- PEF information is understood, perceived as useful and relevant, trusted to be accurate;

- Most popular information and best likely combination was that of communicating the single score and most relevant impact categories;

- Simpler formats were more understood and trusted, but less effective in guiding purchasing choices or drawing attention;

- Providing information on the PEF beforehand improves product choice, attention, understanding, perceived usefulness and trust in the information.

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18 https://ec.europa.eu/environment/eussd/smgp/pdf/EF_stakeholdercons19.pdf

19 Read the report: https://ec.europa.eu/environment/eussd/smgp/pdf/2019_EF_commtest_report.pdf

In cases where no PEFCR was available, tests concluded that:

- Consumers of high level of environmental concern assigned more credibility to PEF-based claims, but in general, products with environmental claims were perceived as more environmentally friendly, independently of how they were substantiated.

- If PEF-based claims were widely present in an assortment, products with PEF-based claims were perceived as more attractive.

- Qualitative claims were easiest to understand (e.g. "We prevent excess algae growth by cooling the heated water from our palm oil plantations before it flows back into the rivers, helping to maintain necessary oxygen levels.").

Issues arising during the communication of environmental information to consumers are also examined within the framework of an initiative to improve consumer information and strengthen consumer protection against commercial practices that run counter to Green Deal and CEAP objectives, e.g. 'greenwashing' and early obsolescence[20]. Policy options under the two initiatives will be defined in a complementary manner.

[20] https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12467-Empowering-the-consumer-for-the-green-transition