

Discussion paper

Future environmental footprint communication

Nordic Environmental Footprint Group

DISCLAIMER

The discussion paper should not be reported as representing the official views of the Nordic Council of Ministers or of its member countries. The opinions expressed and arguments employed are those of the authors

Nordic Environmental Footprint group
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1. Foreword

In 2016, the NEF group¹ accepted a request from the EU Commission to contribute to the planning of a communication session at the Commission stakeholder conference marking the end of the Environmental Footprint (EF) pilot project. The session should present the results of the pilots' testing of communication vehicles, and discuss possible future ways of market communication of EF.

With the present paper, the NEF-group would like to contribute to the discussion of ways forward regarding market communication of the EF profile of products and organisations, and identify possible steps toward the overall vision of having one European methodological framework supported by EU Commission, the national authorities and stakeholders.

The paper was uploaded at the Commission EF wiki pages in December 2017 to allow the EF Steering Committee to read and reflect on the paper. Comments from the Steering Committee members have been incorporated as they relate to factual errors or unclear wording. Comments that are based on differing viewpoints are not incorporated but are referred for discussion at the EU Environmental Footprint Final Conference in April 2018.

The discussion paper has been drafted on a consultant basis by Torben Clausen, Operate A/S in cooperation with Preben Kristensen, NEF group coordinator. The viewpoints expressed in the document are not necessarily shared by the members of the NEF group. The paper will be presented and further discussed during the EU Commission EF stakeholder conference in 2018.

The NEF group hopes the discussion paper may contribute to a dialogue among European stakeholders of finding effective ways of market communication that meets the overall challenges of sustainable development.

¹ The Nordic Environmental Footprint (NEF) group is a network under the Nordic Council of Ministers. The network was established in 2015. The objectives of the network are to coordinate Nordic authority work in relation to the Commission project and to contribute to the dissemination of information.

2. Introduction

Consumers and businesses within the European Union may in the coming years meet a whole new and systematic information system about the environmental footprints (EF) of products and organisations - including a benchmark to allow for comparison of EF's between competing products in the market.

The methodological basis for such a system is the methods published by the EU Commission in 2013 – the Product Environmental Footprint (PEF) and Organisational Environmental Footprint (OEF), and further operationalized by specific product category (PEFCR) and organisational sector (OEFSR) rules for approx. 20 different product categories and organisational sectors. In addition to the PEFCRs and OEFSRs, general guidelines have been elaborated and tested and are now available for other categories and sectors for elaboration of similar PEFCRs and OEFSRs.

The overall objectives of the EU action in this area have been explained in a communication to the European Parliament and the Council “Building the Single Market for Green Products” (COM/2013/0196).

Communication of EF to business and consumers is key to meeting the overall objective of the developed methods: To facilitate a gradual change to a circular economy, to reduce impacts on the environment and climate and increase resource efficiency of organisations and products.

The present paper is based on the experiences by the PEFCR pilot projects and has been developed through a process that involves expertise from across Europe. A seminar conducted in Copenhagen on 7 June 2017 gathered experts in PEF, environmental communication and behavioural economics to discuss future PEF and OEF communication. The authors have also consulted governmental expertise in the Nordic countries.

The paper presents overall strategic aims and visions for future EF communication focusing on PEF. The discussion has been limited to PEF due to the limited experience collected on OEF communication in the present pilot phase.

Links and references

- PEF and OEF methods: The methods/guides are defined in the Official Journal in 2013 (L124): Commission recommendation of 9 April 2013; On the use of common methods to measure and communicate the life cycle environmental performance of products and organisations (2013/179/EU)
- PEFCR guidance document: Guidance for the development of Product Environmental Footprint Category Rules (PEFCRs), version 6.1 (April 2017 and later versions)
- OEFSR guidance document: Guidance for the development of Organisation Environmental Footprint Sector Rules (OEFSRs), version 4.0 (February 2016 and later versions).
- Communication background document: For the testing of communication vehicles in the environmental footprint pilot phase 2013-2016, version 1.1.

3. The strategic aim: Greening the consumption

A company wishing to market its product as environmentally friendly in several EU Member State markets faces “a confusing range of choices of methods and initiatives”, as stated by the EU Commission². This results in additional costs for companies and confusion for consumers.

PEF can help consumers and business partners make more informed choices. As stated by the Commission, the objective is “To improve the availability of clear, reliable and comparable information on the environmental performance of products and organisations.”

The goal of PEF is to create a market that is efficient for businesses wishing to communicate environmental performance across markets, and at the same time is transparent and credible to consumers. It aims to avoid a large supply of unsubstantiated green claims and confusing labelling schemes. This should lead to a gradual improvement of the environmental performance of products and contribute to a significant increased share of green purchases.

3.1. The strategic approach

To drive markets towards greater sustainability, EF communication needs to influence the behaviour of consumers and businesses.

Dissemination of information about environmental performance of products is important for this behaviour change. It means consumers and businesses are given a choice to consciously change consumption in a greener direction.

However, information dissemination should only be one of the elements in a strategy to influence behaviour. Processing of explicit information and weighing of costs and benefits of a purchase decision is probably not even the most important approach to decision making in most purchasing decisions. This is true for consumers, as it is to a large degree for businesses too.

To achieve most effect from PEF, at least three other strategic perspectives should be taken into consideration to meet the above goal:

- 1 *Choice architecture.* A PEF label and any underlying system for scoring or benchmarking products should be seen as a choice architecture. This means a specific way of presenting choices to consumers and businesses. The architecture chosen will directly influence the probability that green purchasing decisions are made. Examples of existing choice architecture are the Swan and the EU Ecolabel (Flower). They make it easy and fast to make a green choice with a minimum of information processing simply by looking for the presence or the absence of the ecolabel. Both allow for a choice strategy of satisficing, meaning that consumers simply need to ensure that one condition is satisfied: The presence of an environmental label. The EU energy label is a different choice architecture. This relies on greater information processing as the label contains a multilevel benchmark, and it also asks the consumer to develop a more specific preference between levels A, B, C etc. The resulting behaviour from consumers will be different depending on which architecture is chosen.

² <http://ec.europa.eu/environment/eussd/smgp/index.htm>

- 2** *Value proposition.* It is a key aspect of any marketing and advertising campaign to endow products with value. Often this means expanding the value proposition beyond what is immediately obvious e.g. this hammer can be used to hammer in nails, but it has a superior ergonomic quality, it will last longer or it will be the envy of your neighbour. The same is true of any environmental label or system. It is necessary to communicate to consumers what the value proposition of the label is beyond the obvious fact of being beneficial to the environment. The Nordic environmental labelling has been quite successful in establishing a value proposition for the Nordic Swan with a broader scope than just environmental concerns by also taking consumer health and product quality on board in communications. Designing the value proposition must take place with great respect for the underlying methodological choices and challenges in the LCA-method behind PEF. However, translating this method into something that is meaningful to consumers is key for any actual effect to be reached in the market. The same can be said for the possibilities businesses find in using PEF to develop the value proposition for their product or organisation.
- 3** *Stakeholder support.* Modern consumers and business professionals are confronted by thousands of strategically designed messages on a daily basis. To compete in this marketplace of communications, strategic communication has increasingly sought to move from a centralised sender model to a dispersed model of stakeholder or network communication. In this paradigm, many organisations contribute to communication and work to create opportunities to engage with the communication. In addition to amplifying and spreading messages, a broader stakeholder involvement helps to increase legitimacy of the communication by showing broad support not attached to any one special interest, be it commercial, political or otherwise.

Decisions regarding future EF communication should reflect these strategic perspectives to maximise the behavioural effect. They have implications for the choices made in terms of communication and labelling, but also for the design of the entire system and how it supports various stakeholder communication. This will be elaborated in the next chapter.

3.2. Six fundamental requirements of credible communication

The Commission has outlined six general principles for Environmental Footprint (EF) communication³. These are essential for a communication that is informative and thus can help achieve the goal of supporting more informed decisions. The six principles are: Transparency, availability & accessibility, reliability, completeness, comparability and clarity.

The principles are fundamental for all EF communication. They must be guiding principles for both the choice architecture, value proposition, and for all stakeholder communication.

They will help to ensure trust from both consumers and businesses. They also place demands on the design of the system including access to data, independent verification, and a presentation that is perceived as fair and easy to read and understand.

³ From the Background Document for The Testing of Communication Vehicles in the Environmental Footprint Pilot Phase 2013-2016. ver. 1.1

4. A long-term vision for PEF communication

This section presents a long-term vision for EF communication. This will not be realised from day one. However, it is important to envision from day one how the system is designed and operated, and what the desired effects are. This will ensure that the right decisions are made from the outset. Some suggestions for stepwise implementation will be discussed below.

Some of the points below describe broader aspects than just decisions regarding communication vehicles (e.g. labels). This is due to the fact that the total sum of all EF communication will be shaped by these fundamental decisions regarding the design of the system.

DESIGN

Level and transparent playing field through accessible, credible and comparable public data

- Any product brought to market in the EU, and any business operating within the EU, will have a documented environmental footprint through a PEF profile. The profile will include an aggregated indicator and benchmark that is simple and easily accessible for customers.
- The EF profile will comply with the calculation rules established for the specific product category (PEFCR). Any product not in compliance with this requirement will be illegal to market in the EU.
- The responsible for bringing the product to the market is free to apply additional relevant environmental impacts other than the most relevant impact categories, processes and life cycle stages identified in the PEFCR, provided they are listed in the PEFCR and are properly verified.
- The PEFCR only include environmental aspects. Other dimensions of importance to consumers and other stakeholders are not included within this framework. This means the design of the system only supports a value proposition related to environmental impacts. Factors like consumer health are not supported. However, this will not prevent stakeholders from linking e.g. environment and health in their communication, as long as the relevant rules and legal frameworks outside EF are respected (e.g. governed by the Unfair Commercial Practices directive).
- Independent, third-party verification of product and organisational impact data take place on an ongoing basis in order to ensure the optimal combination of consumer and business trust in EF and agility and business value of the system.
- Through data that is easily *accessible*, highly *credible* and *comparable* between products and businesses, all environmental claims are verifiable. This creates a level playing field for environmental claims based on data rather than market power and communication resources.

OPERATION

All stakeholders are free to communicate environmental footprint through fair use of data

- In addition to the Life Cycle Inventory (LCI) datasets, the EU Commission has established and supports a data register or similar network of databases for all output (EF-profile) data applied for a verified PEF. The data are core elements in all European ISO type III EPD schemes.
- All stakeholders including business, governments, NGOs and media can access, download and use PEF information about products freely.
- Data are used by businesses to market and communicate in order to promote own products and advance own stakeholder relations. Data are also used to make com-

parisons and advance one's own business and products in comparison with competitors according to legislation and proper use of the EF method and supporting documents.

- Businesses adapt EF terminology and presentation in their communication to better reach their target groups e.g. by integrating most relevant environmental aspects or additional information into broader categories (e.g. "organic" or "a good choice for the climate"). This adaptation is in line with the conclusions contained in the EF Profile of the product. Specific wording and other presentation of this information is free for businesses and other stakeholder groups to design to their specific needs, insofar that they remain compliant with the requirements of the Unfair Commercial Practices Directive.
- A smooth and speedy – fast track – process for updating PEFCRs is established. This avoids the risk that the system inhibits innovation and prevents new products or processes with superior performance from being communicated in the market.
- EU and national authorities are active participants in creating awareness and trust in EF. These efforts include appropriate legislation as well as the harmonization of labels approved by national and regional authorities to the EF regime.

EFFECT

Communication in the market effectively drives consumers and businesses to low impact choices

- PEF data are effectively influencing behaviour both in B2C and B2B and is driving markets towards lower environmental impacts thanks to data being made available at the right time, and in formats that are easily understandable and highly actionable.
- The numbers of environmental labels used in the market have been significantly reduced, as clear requirements for environmental claims have been defined in relevant legislation. All type 1 eco-labels and other environmental product-related market communication build upon PEFCR requirements plus possible additional requirements not included in the PEFCR.
- Communication supports two primary mechanisms with the power to drive the market: "Pull from the front" through a focus on products and organisations leading the market, and "push at the back" by a focus on worst in class products and organisations.
- These mechanisms are driven by the mandatory EF profile, which is available on or in connection with any product, and a number of voluntary communication vehicles that support B2C and B2B customers' choice strategies. This has first and foremost empowered costumers to make green choices, and perhaps educated them to better understand the relationships between products, organisational operations and environmental impacts.
- The type 1 eco-labels (EU Ecolabel, Nordic Swan etc.) have continued to be voluntary tools to signal "best in class". This mean that PEF builds on consumer knowledge and trust in these labels, while at the same time the labels are integrated in the new robust and harmonized methodology. Type I eco-labels build upon the PEF methodology and include also other quantitative and qualitative parameters of concern to consumers.
- The system has decreased costs for business and governments because one common framework governs all EU markets.

5. Building blocks towards realising the long-term vision

Realising this vision will be very demanding and a long-term effort. Several preconditions must be in place, and not all of these are realistic to achieve in the short term. In this section, we identify a number of preconditions that are at the same time crucial for the system, and which present major challenges. We also present some thoughts regarding possible intermediate steps that might allow the process to move forward without compromising the integrity of the system.

1) A strong authority and stakeholder commitment including a dedicated long term campaign

A long-term communication effort is needed from the EU, national governments, NGO's and commercial actors to establish understanding and acceptance of the common framework within all EU member states and among both businesses and consumers. This includes consumer recognition of the PEF label and knowledge of the value proposition that PEF carries.

2) Independent third party verification

To ensure that data is credible and comparable and properly applied according to PEFCR, independent third party verification is crucial. This must take place according to an official EU verification scheme. Verification must take place based on access to input data for any PEF being verified. However, independent third party verification for all products on the market will be very demanding and costly not least for SMEs. A verification process building on a sample procedure should be designed. A sampling system could be further developed as a combination of random sampling among products with a gross turnover above a certain level combined with mandatory verification of all products with a gross turnover above another and higher level in any member state. Products with a turnover below these thresholds may be verified by a less stringent procedure than independent third party verification.

3) All PEF data will be reported to a database

A PEF database with output data should be available from day one. However, input data could also play an important role in ensuring stakeholder engagement and trust in the system and should be incorporated to the extent possible with respect for essential cost considerations and commercial confidentiality. Based on the data the Commission will regularly revise product category benchmarks and performance classes.

4) A PEF logo is introduced for all products marketed within the EU

A visual trigger must be developed that clearly links the scheme to an EU mandatory system. The trigger (a logo) will clearly link the information to the EF verification scheme. The trigger should serve as an anchor for all PEF information in any form regardless of communication vehicle. See section 6.1 below.

5) A label is introduced for all products marketed within the EU

The label must present an aggregate PEF for the product. The logo and the label will in combination be the mandatory communication vehicles for EF information. The label will be shown together with the PEF logo to link the overall assessment clearly to the PEF scheme. Both the logo and the label must be shown on the product packaging or other material accompanying the product (B2C) or made available in all sales material or other communication channels including print and digital (B2B). The label will be free to use as a print and digital asset accompanied by the PEF logo by any stakeholder. Visual guidelines incl. logo to link all

communication to the PEF framework will be developed by the Commission and be protected in the market.

6) Gradual implementation of a mandatory communication regime

To achieve the goals stated above, there is a need for a mandatory communication regime that covers the whole market and with minimum requirements for communication e.g. presenting a label on a product or packaging. An intermediate scenario could be an opt-in regime. This could entail a requirement to use the PEF label and abide by all other requirements within the EF framework for any product or organisation choosing to communicate environmental footprint information in any context, but without placing any demands on businesses who abstain from making environmental claims. Some sectors and industries will be closer to implementing PEF than others. A uniform introduction across sectors and industries will entail a disproportionate burden on some. Also, seen from a communication perspective there are clear advantages in allowing the readiest and interested industries and businesses to take a lead in establishing the system before making it mandatory, as a positive and engaging communication both in B2C and B2B markets increase the chance of a positive reception and use of the system. Presumably, an introduction in a B2B setting before B2C will help businesses incorporate the new system. An intermediate and voluntary system would require an EU regulation as well for effective implementation.

7) Relevant EU schemes related to PEF will build upon the PEF regime

The existing regulatory schemes in operation in relation to products– the EU Ecolabel, the energy label a.o. will be integrated with the new PEF regime in a common methodological basic (legislative) framework to ensure transparency and clarity. Also, other type I and III schemes should build upon the PEF (e.g. the Nordic Swan, The German Blue Angel, ISO type III EPDs a.o.) Different approaches can be taken. The 3-5 hotspots identified for each product should as a minimum be included in the criteria of these existing schemes. Existing schemes may also take on board other environmental concerns for the target group of the schemes, as long as they are identified as relevant impacts within the PEFCR. This allows for a more expanded view of “best in class”, that these labels can then communicate. Finally, the labels may take on board non-environmental aspects of importance for (regional) consumers’ preferences within the framework of sustainable development. These choices should be made with a view to the proper balance between making the value proposition relevant for consumers, while at the same time ensuring that the rewards from a standardised system are gained in terms of harmonization and minimization of barriers to trade within the common market. See section 6.2.

8) Relevant EU legislation should be amended to cover the new requirements

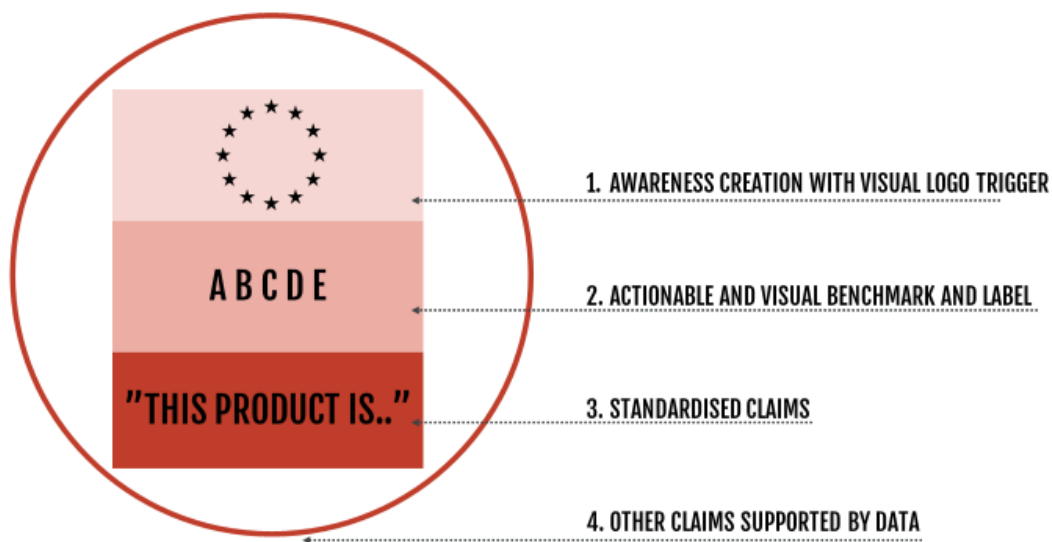
The Commission should step by step implement PEF as a requirement for marketing by using the legislative approaches most effective – especially the existing regulation governing the CE labelling of products (the 765/2008/EC Regulation), the UCP directive (Unfair Commercial Practices), EU accreditation/verification system (EU Regulation /765/2008), the eco-design directive and green public procurement. There is a clear need for broadened stakeholder involvement in these processes.

6. Communication of PEF – a four level approach

The introduction of a PEF label must ensure consumers have easy access to an aggregated indicator and benchmark within the product category. However, introducing a label with a benchmark should only be part of a comprehensive PEF communication regime.

We envision a four-level approach to communication. The four levels are:

- 1 General communication including a logo to create awareness, trust and use of EF.
- 2 A mandatory benchmark that is a simple, easily understandable and actionable visual presentation of the PEF.
- 3 Optional claims in a “standardised” format and verified in a PEFCR that has high consumer recognition⁴.
- 4 Other stakeholder communication that can build upon PEF data and other data regarding non-environmental factors to make broader, commercially relevant claims within the framework of the UCP directive.



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We will discuss the four levels separately below. Several of these considerations may also be relevant for OEF.

6.1. Level 1: General communication of the EF system

The foundation of any EF communication is a general awareness of the system: What it is, what does it represent, why is it important in terms of environmental awareness, and why is it trustworthy? As EF is an abstract concept, it must be established in the consciousness of consumers and businesses to have any effect. This includes consumer recognition of the PEF label and knowledge of the value proposition that PEF carries.

⁴ The word “standardised” in this context should not be taken to refer to an ISO, EN or other international standard regulated by an international standardisation body.

Education material, storytelling campaigns and outreach initiatives towards businesses and consumers should be an integrated and highly prioritized part of the implementation. Both the EU commission and member states have an important role to play in this.

The scheme must include a visual trigger (a logo) to clearly link the information to the EF verification scheme. The trigger should serve as an anchor for all PEF information in any form regardless of communication vehicle. The trigger must also be recognised as proof of third party verifications by consumers. In the following, this is illustrated with a EU flag, however the actual visual trigger should be designed specifically for PEF.

It is crucial that this design is suitable for online shopping, e-procurement, and digital communication in general. Consumers conduct a lot of research online before purchasing products, particularly high value products e.g. white goods. PEF information should be visible at this touchpoint in the consumer purchasing journey. Also grocery shopping online is becoming more commonplace. PEF should be useable as a digital asset in e.g. Google searches, where the visual space is cluttered with information, and PEF needs to stand out in order to be noticed. Ubiquitous presence is crucial for impact both in commercial and digital communication and should be supported in the EF implementation.

6.2. Level 2: Product benchmark and visualisation

In order to be effective in driving costumers towards low impact choices, PEF must support a *satisficing strategy* meaning it offers customers the option to select or deselect products by evaluation of one simple criterion. This has been shown in numerous cases to be an effective strategy to influence consumer behaviour. Requiring consumers to read a complex label and process product specific information carries a high risk that consumers will ignore the information and not change their behaviour.

The key requirement for a PEF label must be that it presents a product benchmark in a format that is simple to understand and use across different product types and contexts, and thus function as an effective choice architecture that will guide towards green consumption.

Specifically, it must support easy distinction between products that are preferable (positive EF choice), and products that are non-preferable (negative EF choice).

The label must be required in both B2C and B2B commerce. Current practice in much B2B commerce has the same need for simple satisficing strategies as B2C. This also includes retail, which in many instances will need the consumer level information for direct use in marketing. Business customers may of course require full PEF information e.g. in a spreadsheet from their suppliers directly or via links if needed.

In the following, we will discuss three different approaches of benchmarking to achieve this. One is a five-level benchmark, another is a three level “traffic light” model with the option to include a “best in class” environmental label, and the third approach is a best in class-label. We will present arguments for and against each model. The final choice is ultimately a political decision.

Five-level letter benchmark

This benchmark approach ranges from A, which is best to E, which is worst environmental performance.



This approach has strength in its resemblance with the EU energy label and other benchmarking systems. It communicates clearly what is better and what is worse in terms of performance. The evidence indicates that consumers understand the scale correctly, at least when the labels “better”, “average” and “worse” are displayed, and might have a preference for this solution when surveyed⁵.

As a choice architecture, it has a weakness in the broad range. For the consumer, it is up to interpretation to read meaning into the different levels. Especially the B and the D are conceptually difficult, as they are not labelled as either best, average or worse. This kind of conceptual openness runs the risk of creating confusion, which in itself can inhibit action, as we are less likely to act on a visualisation we do not understand, and that does not give a clear behavioural “nudge”.

Another risk with this system is for consumers to set an anchor that does not optimise for environmental performance. An anchor at the C-level, which is average, can be associated with a norm of being no better but neither no worse than the product choice made by other consumers and thus satisfying a social norm of acceptable environmental consumption. On the other hand, it has a strength in being more diversified than a three-level benchmark, thus creating more of an incentive for businesses to develop products with a better environmental performance.

In this approach, the A-level will become a “best in class” score. This means existing type 1 eco- labels will be less relevant, a factor that should be taken into consideration depending on political preferences.

Three-level “traffic light” benchmark

This benchmark has its strength in that it builds on the signal colours, which are used extensively and have been shown to be effective across many contexts.



The main strength as a choice architecture is simplicity. Consumers are given a very simple and clear indication. Positive choice in this suggestion is defined as a green EF profile indicating e.g. the best half of the market, and for instance green public procurement should request products within this segment only. Negative choice is defined as a red EF profile in the

⁵ “Update on Communication Activities”, Open Evidence, presentation to the Technical Advisory Board and Steering Committee, 5. July 2017.

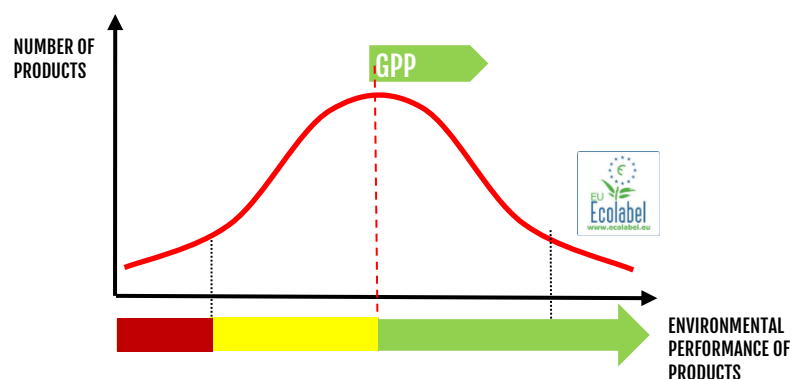
bottom of the market, e.g. roughly equivalent to the worst performing (10-20) percent. This corresponds to a “worst in class” strategy. This choice architecture directly supports the two satisficing strategies introduced earlier. It offers a very direct link between the benchmark and the choice strategy of the consumer. Also, if the labels “better”, “average” and “worse” are omitted, the colours more directly signal either a clear “go-ahead” for the green, or the yellow colours signalling caution, which in itself can serve to “nudge” towards the green choice.

A drawback in this system is the low level of discrimination and thus incentive for business to do incremental improvements in environmental performance.

Another limitation is the lack of ability to signal “best in class”, if for instance the cut-off point between green and yellow is set at the 50 percent mark. This opens a space of continued relevance of existing type 1 labels. The EU Ecolabel and national/regional public supported labels can have a role to play as primary voluntary tools to signal “best in class”.

Also, as stated above, the type 1 eco-labels can play a role in extending the value proposition for consumers. The criteria for achieving the ecolabel logo may contain “sum-up” impact parameters of relevance for the target group, e.g. organic growth of cotton, animal welfare, sustainable forestry etc. – provided the “sum-up” is reasonably argued by the impact categories included in the PEFCR as well as other aspects of relevance for the category as discussed in section 5.7. All aspects will be certified by a 3rd party. The use of the eco-label schemes should still be voluntary based on an EU or national approved legislation or other agreements. Some preliminary evidence suggests, however, that this choice is not immediately preferred by consumers, but further studies are needed to properly assess this⁶.

The rationale is illustrated below:



Source: Adapted from M. Galatola, EU Commission: Presentation at NEF workshop, Stockholm, 24 September 2015

⁶ “Update on Communication Activities”, Open Evidence, presentation to the Technical Advisory Board and Steering Committee, 5. July 2017.

Best in class

This third option is also the simplest, as it does not present a benchmark scale. The benchmark is implicit, as it distinguishes the products with an environmental performance that is best in class from products which are not. It is easy to understand and well-known in the markets.

This label design is very clear in communicating benefits, as the consumer is given a clear choice of either choosing best in class environmental performance or forgoing this choice. In this way it has a simple and clear nudging effect by making this specific choice clearly available.

This approach has significant advantages in the short to medium term implementation. As a large number of existing type I eco-label schemes use this approach, PEF can be implemented as part of the methodological basis for these labels without introducing new visual elements. This means that existing type 1 labels like the EU Flower, the Nordic Swan, Blue Angel etc. can continue on the market, which is a clear advantage in light of the investments already made in introducing and promoting these labels.

The main limitation of this approach is the fact that it is unable to communicate worst in class. It does not discriminate between products that are very close to achieving best in class, and products that are worst in class. This takes away incentives for incremental improvements. It presumably also leads to less widespread use, as consumers who are not motivated by being best in class in environmental performance have no option but to opt out of the system.

Another limitation is that the type 1 eco-labels are voluntary. The “best in class” option should therefore be combined with an obligatory use of PEF as a condition for environmental claims via e.g. the UCP-directive. Significant parts of the market may therefore choose not to apply environmental information in their market communication – unless “best in class”. The “best in class” option would therefore not meet the vision presented above.

This table summarises the main points of the three models presented above:

	Five-level letters	Three-level traffic light	Best in class
Link to existing schemes	Similar to EU energy label May compete with existing eco-labels	Similar to other well-known signalling systems Opens room for existing eco-labels	Communication based on existing eco-label schemes PEF data as part of eco-label criteria
Support consumer choice	More diversified choice Better incentive for product improvement	Direct support for satisficing strategies More direct nudging effect can be expected	Single choice based on best in class Simple and clear nudging effect
Limitations	More open for consumer interpretation Risk of satisficing at the medium level	Limits options for incremental improvement Best in class not visible without supplementary eco-label	Unable to communicate worst in class Risk of reduced use of environmental claims in the market

6.3. Level 3: “Standardised” claims (voluntary)

The PEF label could also contain claims in a “standardised” format. This could have the form of general sentences such as “This product is best in class in protecting the climate”. Also, recommendation for proper use, repair and the like may be included if relevant.

This would have the advantage of creating an easily recognizable format for making environmental claims regarding aspects that are important to consumers.

Use of any such claims should be voluntary both within a product group (to be decided in the PEFCR) and for any business bringing a product to market.

By using “standardised” claims, it would be possible to include these in the independent, third party verification and thus increase the credibility of these claims. Also, the idea is that these claims (if used) should be an integral part of the PEF label, using the same design. This would also serve to increase the credibility of the claims.

It is thus possible to present selected impact categories together with the overall EF label. This can be selected by businesses to highlight specific dimensions. This is complex information that has been shown to cause confusion among consumers, which is an argument for not making this information mandatory. An argument for presenting this information is the more concrete and recognisable nature of the information. Where an overall PEF benchmark relates to the abstract concept of environmental performance, specific impact categories such as “climate change” offers information that consumers can better relate to and might be more emotionally involved in. Some preliminary evidence points to this effect⁷, however this should be seen in light of the fact that no communication to consumers has taken place to establish the value proposition of a PEF label. This will be different when EF is implemented.

6.4. Level 4: Other stakeholder communication

The last level contains any other communication from any stakeholder containing environmental and other claims whose expression is not directly regulated as part of the PEF, and which is not part of the official PEF label (which is the case with levels 1 to 3). Specific wording and other presentation of this information is free for businesses and other stakeholder groups to design to their specific needs. Existing regulation such as the UCP-directive must of course be respected, as this puts limits on what can be claimed.

Businesses are free to adapt EF terminology and presentation in their communication to better reach their target groups e.g. by integrating hotspots or additional information in broader categories (e.g. “organic growth”, “a good choice for the climate”). This adaptation must be in line with the conclusions contained in the PEFCR. This also allows for communication of PEF information as part of general marketing, and to develop own visual and other communication products to use in marketing. Other stakeholders are also free to communicate using PEF data about any product on the market.

⁷ “Update on Communication Activities”, Open Evidence, presentation to the Technical Advisory Board and Steering Committee, 5. July 2017.

This type of communication will be very important both for creating awareness about PEF, and for driving behaviour and building a market for green products. The communication however will take place within much more clearly delineated boundaries compared with today, as any environmental claim made must be substantiated by a PEF profile. This also means that any negative claims made against a business and its product can be challenged based on PEF data. As much market communication takes place in this sphere, this is where PEF will first and foremost create new commercial opportunities and influence behaviour, making this level of the communication very important for achieving the strategic goals set forth. This is also where PEF communication aligns with branding, corporate identity, and other commercial activities, as business can freely design their own communication without it being part of a labelling scheme.

7. Strategic use of PEF information – some examples

PEF will be much more than a label, as the discussion above should make clear. In this section, we present some examples to show how we see environmental product communication could play out within PEF, and how choice architecture, value proposition and stakeholder communication could look very different within the overall framework that we envision.

1) *Strategic branding based on environmental footprint indicator*

A food producer has improved its footprint within the indicator water usage and is now best in class. This becomes the starting point of a branding campaign to associate all products with combating water scarcity. PEF data on water scarcity is used to substantiate the claim.

The producer must still show an overall PEF profile on the product, which might be red or yellow, but a good performance within water usage if identified as a significant environmental indicator in the PEFCR is a legitimate claim, and businesses are free to communicate this aspect.

2) *Retail campaigns*

A leading European retailer wishes to drive sales through a campaign to limit the carbon footprint from consumption of fast moving consumer goods. The retailer decides to dedicate a section of the store to products with an A in the indicator on climate change.

As in the example above, the overall PEF profile is available for each product, but the consumer can also decide to navigate by the climate change PEF score alone when doing purchases.

3) *Market services, knowledge products etc.*

a) A supermarket offers individual consumers advice based on historical purchase data on opportunities to lower the overall environmental footprint of the consumers' purchases. This is offered in connection with campaigns with lower prices for first time purchases to increase sales of low impact products and build the market.

b) A consumer organisation offers to calculate an annual consumer environmental footprint to benchmark consumers and advise on low footprint alternatives.

c) Consumer data on product purchases linked with PEF data is used to calculate national, regional and EU-level trends in environmental impact from consumption and benchmark European consumers. NGO's and governments use this data in targeted campaigns to further substitution.

4) *Campaigns by authorities to promote PEF*

A national government wishes to promote sustainable consumption among national youth. The campaign takes PEF profiles of products popular among youths as a starting point to discuss choices, values and identities related to consumption, and how a youth lifestyle can be sustainable.