

Study on different options for communicating environmental information for products

Final report

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Executive summary

► Introduction

In 2012, the European Commission will review its Sustainable Consumption and Production Industrial Policy (SCP/SIP) Action Plan, which was adopted in 2008. Issues related to sustainable consumption and behaviour will be a major aspect for the 2012 review. In particular, the possibility to provide information on the environmental performance of products that would be comprehensive and reliable is one of the possible initiatives on product environmental footprinting (PEF). Against this backdrop, the European Commission – DG Environment launched this study “Different options for Communicating Environmental Information for Products”.

The aim of this study is to review and analyse the existing knowledge on different means to provide to final consumers multi-criteria environmental information related to products. The overall objective is to examine different mechanisms and vehicles for communicating product-level environmental information to consumers in order to determine what mechanisms will maximise consumers' usage, understanding and ability to compare between different substitutes.

In particular, this project focussed on the following aspects:

- What to communicate (i.e. how many different indicators can a consumer realistically be willing to check and be able to understand and compare?)
- How to communicate the information (i.e. using what sorts of formats: figures, grades, scaling systems, aggregated indicators, best in class label).
- Where to communicate the information (e.g. shelf-tag, package, bar code)

Based on the findings of the literature review, different designs for communicating environmental information were developed. The designs were tested through focus groups in three target countries (Italy, Sweden, and Poland) on the basis of which the designs were further refined. The final designs were presented to 500 participants in each of the three target countries (i.e. 1,500 total respondents) via an online questionnaire. The results of the consumer survey helped in identifying the optimal design options.

► Key findings of the literature review

- What to communicate:
 - Too many environmentally indicators confuse consumers, therefore no more than three indicators should be communicated.
 - Food and drink products, household cleaning products, and clothing are fast moving consumer goods that most consumers purchase quickly and without in-depth reflection. Therefore, the level of aggregation is a key consideration. Higher degrees of aggregation are quicker to take in and take up less space, but are less transparent.

Greater disaggregation can take the information beyond three indicators, and risk being difficult for the consumer to understand.

- The use of an aggregated indicator, combined with up to three individual indicators, is recommended as an effective presentation of data.
- How to communicate:
 - The information should come from a trusted source and, ideally, a third-party and not the manufacturer.
 - Communication over multiple channels generally has the most positive effects. For example, information made available in a brochure or on a website can support the more limited information made available via an on-product label.
 - Using smartphone technology to communicate environmental information could allow consumers to access detailed product information when making their purchasing decision. Obtaining real-time purchase input will become increasingly common as consumers become more comfortable using their phones as a shopping tool. Providing information over a “soft” platform such as a smartphone has the added benefit of allowing it to be updated more frequently and at lower cost than, for example, changing the tags on a shelf of products. Nonetheless, this technology is still developing and not all of the population have access to smartphone or similar technology. Therefore, such technologies remain most effective as a complementary source of information for the time being.
 - The quality and clarity of information is more important than the quantity of information as too much information inhibits decision-making.
 - General terms for the indicators and simple units of measurements using an easy to understand rating system are preferred over technical descriptions (e.g. “climate change” is preferred over “CO₂-equivalent”).
 - Absolute values by themselves are not sufficient to communicate multi-criteria environmental information to consumers. A scale should be used.
 - Colour can be a strong factor to aid in comprehension, but is often contested by manufacturers as it can be difficult to integrate into existing packaging designs.
- Where to communicate:
 - Information at the purchase point is necessary to impact behaviour.

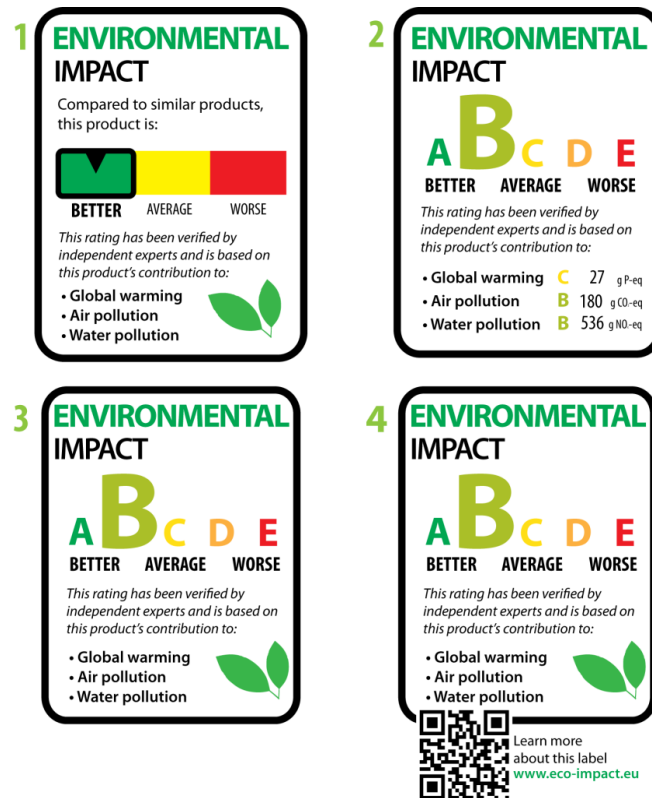
- The physical constraints of the packaging influence what labelling options are possible. For example, small electronic products have limited opportunities for on-product information, whereas clothing and textiles have much greater surface area available for labels, making this type of communication easier.
- Indicators of uncertainty or data reliability should be avoided on in-store and on-product information as they can confuse consumers. They could be presented, however, to more advanced consumers interested in such questions via websites or other tools.

► Key findings from focus group exercise

- The concept of multi-criteria environmental impacts across product life cycle is unfamiliar. In general, the participants were unfamiliar with the idea that products can have environmental impacts across different impact categories over their entire life cycle.
- Any potential ambiguity in the design or the language can lead to confusion. Given consumers' low level of general knowledge on multi-criteria environmental impacts across the life cycle, it is not surprising that any ambiguity in the design or language can lead to confusion.
- Aggregated indicators help understanding. The absence of an aggregated indicator is a clear source of confusion for consumers.
- Letter scales are deeply associated with the EU Energy Label. Scales using a letter as an indicator of overall performance are quite familiar to consumers. They understood quite well that an "A" product performs better than a letter lower on the scale.
- Consumers have different expectations for different product groups:
 - With regard to food and drink, and electronics, consumers expressed an understanding of certain impacts associated with these products. Understanding of environmental impact was closely entwined with nutritional and health concerns (in the case of food and drink) and energy use and the related cost (in the case of electronics).
 - For household cleaning supplies, consumers expressed an understanding of the potential for harm associated with toxic or hazardous products.
 - In the case of clothing, participants suggested a simplified label, like the EU Ecolabel, to indicate if the product is "environmentally-friendly" or not.
- Quantitative indicators are of mixed value. For some consumers — in particular, senior citizens — the presence of quantitative figures cast doubt on their understanding of the label. Other consumers — in particular, younger generations— expressed an appreciation for the indicators, saying that it increased their confidence in the accuracy of the label, even if they did not understand exactly what the numbers meant.

► **Key findings from consumer survey**

The follow four designs were translated to the local languages and then used in the survey.

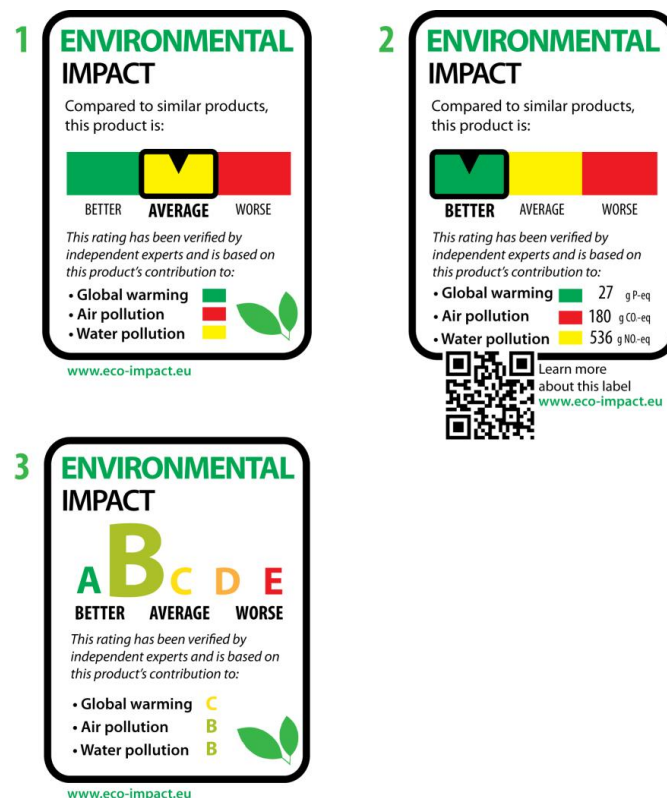


- Consumers express a desire for environmental information, but only about half look for it. The information therefore needs to be obvious (impossible to miss) and explicit (impossible to misunderstand).
- Consumers think differently about different categories of products:
 - Connect environmental impact to human health (food, cosmetics)
 - Strong understanding of energy use (brown goods, electronics)
 - Understanding of toxicity (cleaning supplies)
- A strong case can be made for the use of normative (or qualitative) language when communicating environmental information. This means using “Better” or “Worse” instead of the purely factual “Less impact” or “More impact”.
- Aggregated indicators are considered very helpful by consumers, though they do introduce significant technical and policy challenges to the process.
- Consumers expect the relevant information to be available at their point of decision. This would generally mean on the product or shelf. For most products, consumers are unlikely to be willing to look up a product on a smartphone or to visit a website in order to inform their decision. Such media, however, could be useful places to present supporting information (e.g. methodology used, explanation of the indicator), that would seek to increase consumer understanding and trust in the label.

- Overall, the results of the consumer surveys indicate that there were few differences among the three MS tested. Results of the consumer surveys carried out in the context of this study also closely correspond to a recent consumer survey carried out in France. Results from both surveys emphasise:
 - The importance of having a global aggregated indicator that allows for easy comparison amongst products
 - The importance of a colour coded scheme to facilitate quicker understanding of the information
 - The importance of the information verified by an independent party
 - Consumers prefer ranking systems using letters, rather than just the technical environmental indicators

► Selected design options

Three design options were selected based on the results of the focus group and the consumer survey. From this basis, the designs below were proposed as having the optimal combination of elements, based on the parameters explored in this study.



Optimised label designs

The main changes to the designs are as follows:

- The addition of coloured indicators for the disaggregated impact categories in Designs 1 and 2.
- The addition of a URL¹ in all designs.
- The addition of quantitative data to Design 2 and the removal of quantitative data from Design 3.

► **Guidelines on legal aspects**

The following guidelines legal aspects have been developed with the selected design options in mind:

- EU legislation on environmental labelling must not be discriminatory, i.e. it should not make any *de jure* or *de facto* difference between imported and domestic products.
- The EU's legislation should clearly refer to the environmental objectives of the measure. It should avoid any reference or statements that could be read as implying that environmental information rules serve to protect the internal market.
- The EU should have sound arguments for why the environmental labelling rules chosen are the least trade-restrictive measures conceivable for the objective it pursues. For this, the EU must be able to show that there are no alternative, less trade-restrictive measures available that are equally effective in reaching the desired aim (e.g. general information campaigns).
- The EU will likely need to base any labelling initiative on established ISO standards.

However, there are also some factors that are, in principle, unlikely to affect the WTO compatibility of a label. These include:

- Its design;
- Which and what types of PPM-related environmental information are included in the label (e.g. CO₂ emissions and information on other air pollution, or only information on one of them), as long as for each type of information, certain conditions (e.g., non-discrimination, proportionality) are met;
- Whether third party verification is used;
- Whether the label is voluntary or mandatory; and
- Whether the Commission proposes a Directive or a Regulation.

¹ The URL, www.eco-impact.eu, is for illustrative purposes only.

Introduction

This report serves as the final deliverable for the “Study on different options for Product’s Environmental Information Communication”. The study was launched by the European Commission – DG Environment and carried out by BIO Intelligence Service with support from IPSOS and Ecologic Institute.

The EU plans to review its Sustainable Consumption and Production and Sustainable Industrial Policy (SCP/SIP) Action Plan in 2012. The Action Plan was adopted in 2008 with the aim of improving the environmental performance of products and increasing the uptake of more sustainable goods and production technologies.

The Action Plan also includes tools such as the EU Ecolabel and the EU energy label which help to inform consumers about the environmental impacts and performance of products. The reasoning behind information provision is that if consumers have access to the right information, they will make more sustainable purchasing decisions. However, recent studies have revealed that consumers are often overwhelmed with information and rarely search out, read or properly digest all of the information available to them when making a decision. Therefore, provision of usable information, from the perspective of the consumer, is crucial in order to ensure that tools and initiatives are well directed and effective. The option of disclosing product environmental information as a policy tool needs to be assessed against consumers' ability to fully understand the information, as highlighted by the outcomes of the recent Consumer Empowerment Survey.

In this context, this study aimed to examine different mechanisms and vehicles for communicating product-level environmental information to consumers, to determine which mechanisms will maximise consumers' usage, understanding and ability to compare between different substitutes. The study’s findings are largely based on an in-depth literature review, legal analysis, and results of the consumer survey that was carried out.

Chapter 1 provides an assessment on communicating environmental information to consumers based on existing literature.

Chapter 2 provides details on the methodology used to conduct the consumer surveys on environmental information that were carried out in three MS.

Chapter 3 provides a detailed assessment on the results of the consumer survey. Based on the results of the consumer survey, recommendations on the most optimal design options for communicating environmental information to consumers are also provided.

Finally, **chapter 4** provides an analysis on the legal implications of communicating environmental information is also provided.

The Annex of this report includes supporting information on the different design options developed.

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Chapter 1: Communicating environmental information to consumers

This chapter provides a detailed assessment of the challenges and effective strategies—including what information to communicate, how to communicate, and where to communicate it. The findings of this chapter are based on an in-depth literature review.

In particular, the information presented in this chapter was used to develop the designs that were tested during the consumer survey, in terms of how to present multi-criteria environmental information for products.

1.1 The challenges of communicating environmental information to consumers

The rationale behind communicating environmental information to consumers is to induce behavioural change so that they make smarter, more sustainable consumption decisions. In order to make consumers decide to change their behaviour, three conditions have to be met:

- Adequate knowledge has to be available;
- Positive attitude to change; and
- Access to sufficiently attractive alternatives (infrastructure, goods) (OECD, 2002)

The scope of this study was linked to the first point listed above—concerning adequate knowledge for consumers. Governments have often used social instruments (including awareness raising campaigns, education, product information) to influence consumer knowledge. Across many areas of consumer related policy, the provision of information is favoured as a policy tool because of its lower cost compared to other policy tools and because it is assumed that too much information can never be harmful (PSI, 2009). However, both marketing and the behavioural sciences have shown that this is not always the case. There is vast environmental information available for consumers; however, consumers are often reported to complain about a lack of information. Moreover, consumers rarely search out, read or properly digest all of the information that is available to them when making a decision. The type, complexity and amount of information provided, and the way in which it is presented, all have a significant impact on the likelihood of people reading and understanding it (PSI, 2009). Consequently, the problem goes beyond just the *quantity* of the information, but also includes the *quality* of information. Therefore, a challenge for policy makers is to identify the relevant environmental information and make sure that it is communicated in a way that will affect the purchasing decisions of consumers. When looking to communicate multi-criteria environmental information, the task is particularly challenging, as a balance must be found between the technical accuracy of an indicator and how easily it can be communicated.

While the relevant indicators vary between different product categories, using a consistent logic² in the presentation of the information across product groups can make it easier for consumers to understand the information over time. Additionally, policy makers should also consider the value of building a “brand” around the environmental information displayed across products. This will have the benefit of increasing trust and familiarity with the information across all products.

Finally, another challenge that policymakers must take into account concerns the legal basis of environmental information communication. The World Trade Organisation (WTO) consistency of environmental labelling, including product labels containing environmental information directed at consumers, has received much attention in the legal debate. Therefore, policy makers need to be able to determine whether under EU law, Member State actions concerning environmental consumer information does not interfere with international trade rules. In general, Member States could take unilateral measures on environmental information, provided these measures are proportional to the environmental objective pursued, i.e. they must be (factually) suitable to reaching the desired objective and there must not be any less-restrictive measure through which that objective could be also achieved.

1.2 What multi-criteria information to communicate

Information must be clear and simple for consumers to understand, while simultaneously sufficient to help consumers to make an informed purchasing decision. Aspects related to the type and number of indicators as well as the comparability of environmental information is discussed in this section.

1.2.1 Number of indicators

When providing detailed information to consumers, it is important to find the balance between providing sufficient information to respond to their needs, without the quantity of information becoming overwhelming. A review of existing methods for communicating environmental information points to the use of approximately **three environmental indicators** as being appropriate.

Several studies support the fact that consumers are often overwhelmed by the abundance and multitude of environmental information on labels. For example, one study indicates that Information-processing theories suggest that there is a limit to the amount of information humans can absorb during a specific period of time (Norm, Borin et al., 2011). When consumers have more information, satisfaction increases, however decision-making abilities decrease.

Another source aimed at businesses explains that shoppers in the UK, Europe and the US are increasingly inundated with information about what different labels stand for, what issues they cover and whether they can be trusted (BSR, 2008). When asked, consumers say they want to know more about the products they buy. However, consumers are often locked into different

² For example, if a larger value is used to indicate greater environmental impact for one product category, larger values should also be used for the other product categories.

consumption patterns through habit, price, and access to different shops and goods. Therefore, additional environmental information may well be over-looked given the many other competing demands and messages. The French national experimentation³ on displaying environmental information found that having too many indicators would create confusion and incomprehension by consumers.

1.2.2 Level of aggregation

Food and drink products, as well as household cleaning products, and clothing are fast moving consumer goods, meaning that they are products sold quickly and at relatively low cost. Consumer electronics can be considered durable consumer goods or hard goods because they do not quickly wear out, and yields utility over time rather than being completely consumed in one use and are usually more expensive than fast moving consumer goods. Therefore, consumers will generally spend more time considering the purchase of durable consumer goods compared to fast moving consumer goods. This has several implications in terms of how environmental information should be best communicated.

For food and drink products, Figure 1 and Figure 2 below show the examples of two labels that communicate multi-criteria environmental information for food products. The difference between the two labels is that the label in Figure 1 uses single scoring (based on the average score of several different environmental indicators) and is currently in implementation, whereas Figure 2 communicates multi-scores and is only a theoretical example.

As most consumers purchase fast moving consumer goods quickly and without in-depth reflection, it would be safe to assume that consumers do not spend a lot of time deciding which food products to purchase. However, the risk of using a single denomination to communicate the environmental performance of the product is that consumers will misinterpret the information provided (i.e. by not understanding what environmental indicators were used for the score or to what extent each indicator affected the final score, etc.). This is especially the case if the consumer does not seek the additional information provided by the website.

The level of aggregation is therefore a key consideration—higher degrees of aggregation are quicker to take in and take up less space, but are less transparent. Greater disaggregation can take the information beyond three indicators, and risk being difficult for the consumer to understand. Based on the literature review findings, it is suggested to test a fully aggregated indicator against a hybrid design, combining an aggregated indicator with up to three disaggregated indicators.

³ The French Ministry of the Environment is currently running the French national experimentation on the display of environmental information. It is expected that this preliminary large-scale testing will provide valuable feedback on optimizing conditions for environmental labelling in France thanks to the variety of stakeholders and sectors covered by the experimentation.



Figure 1: Single score on packaging: Casino, using multi-criteria information⁴

Environmental Facts	
Overall Weighted Score	6 / 10
Energy	
Embodied energy	2.800kWhr
Type of energy used: 2.000kWhr coal, 800kWhr solar PV	
Energy usage, avg. est.	1.900kWhr/yr
Transportation origin	
Product: USA	
Materials: USA, China, Korea, South Africa	
Resources	
Product	
Mass	10g
Non-virgin material	5%
Recyclable/Compostable material	30%
Ingredients: aluminum, steel, plastic #1	
Ingredients: Polyethylene terephthalate (PET), aluminum, steel, glass, copper, fiberglass, acrylonitrile-butadiene styrene (ABS), lead-free solder, nematic liquid crystals, polyimide, indium-tin oxide, Polycarbonate, Poly(methyl methacrylate) (PMMA), Styrene-butadiene co-polymer, Polyethylene ether, Triphenyl phosphite, polybrominated flame retardant, silicon, silicon dioxide, silicon nitride, selenium, cadmium, antimony, dopants	
Life Expectancy	4-7yrs
End-of-life	return to manufacturer
Packaging & Misc.	
Mass	800g
Non-virgin material	20%
Recyclable/Compostable material	100%
cardboard, paper, PLA plastic	
Ingredients: cardboard, paper, PLA plastic, soy-based ink	
End-of-life	recycle, compost
Toxins	
Restricted/Toxic ingredients: polybrominated flame retardant, cadmium, antimony, dopants	
Restricted/Toxic production waste: toluene, mercury oxides, cadmium, antimony, arsine, silane, chlorine, phosgene, perfluorocompounds (CF _n , C ₂ F _n , NF ₃ , SF ₆ , CHF ₃)	
Water	
Embodied water	2.600L
Water pollution	3/10
Social	
Labor Practices	8/10
Fair trade	4/10
Transparency	6/10

Figure 2: Theoretical multi-score food label, using multi-criteria environmental informations⁵

1.3 How to communicate multi-criteria environmental information

Several different means and formats of communication can be used for different products. The design and physical appearance of the information can play a key role in terms of influencing the purchasing decision of consumers.

1.3.1 Scales

Labels that present the performance of a product on a comparative scale such as stars, letters or numbers, or a colour coding system are vastly preferred and are more easily understood and motivating than those that present technical information only. The use of a scaling system to display environmental information and performance enable consumers to rank and compare environmental performance between products. This facilitates their understanding of environmental impacts, which would hopefully then influence their purchasing decision. Scaling

⁴ Casino Environmental Index label

⁵ Jeremy Faludi and Dawn Danby, www.worldchanging.com/archives/007256.html

systems can be in the form of letters (A, B, C, etc.), which is used on the EU Energy Label, Numbers (9/10), Forms (star ranking), etc.

From the literature reviewed, there seems to be a consensus that, even if absolute values are used, they should be put on a scale. Given this consensus, the use of absolute values against a scale was not tested in the consumer survey.

1.3.2 Absolute values vs. ratios vs. physical values

In addition to the use of a scaling system to enable consumers to compare environmental performance across products, the way units and values are expressed can positively or negatively affect consumer understanding. A study was recently carried out in France to determine consumer preference on different display and communication methods of environmental information. It covered the following aspects:

- Wording of the indicator: specific (ex: CO₂ emissions) or general (ex: climate)
- Unit of the indicator: physical value (ex: 100 g CO₂), score (ex: A, B, C...) or ratio (ex. % of daily environment footprint of a European)
- Visual presentation: tabular form, histogram—bar chart, or radar
- The presence of a global (aggregated score)
- Mention or absence of an independent verifier (Ernst & Young, 2009)

The results of the study were based on an actual consumer survey of more than 300 consumers. Results of the study indicate that physical values are considered too technical for consumers and most consumers tested prefer the unit of measure of a letter rating form (i.e. A,B,C). This corresponds to the idea that consumers want to be able to easily compare the performances of different products. In addition, consumers favour visual markers, and in particular signs they are already familiar with (e.g. the EU energy label). In addition, among two similar labelling initiatives, consumers prefer information verified by an independent organisation. Overall, consumers reject technical labelling and prefer comparable information, using an easy to understand rating system. Figure 3 and Figure 4 below show the results of the consumer preferences study. Studies have concluded that absolute values alone are not sufficient to communicate multi-criteria environmental information to consumers and that a scale should be used.

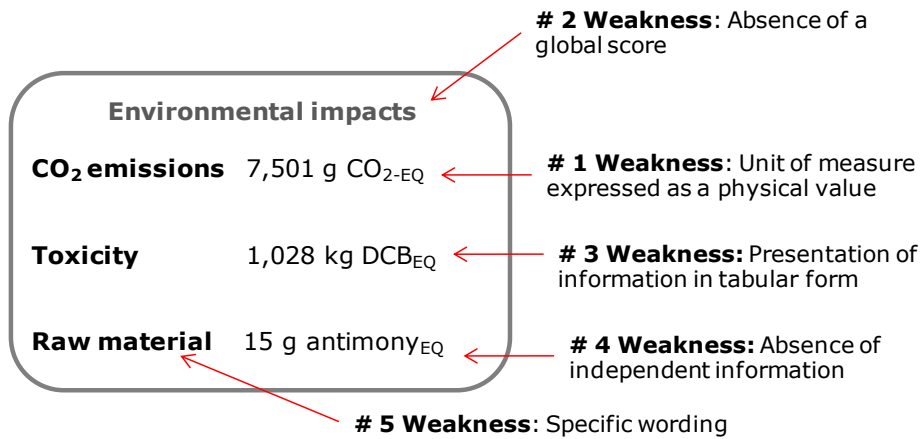


Figure 3: Aspects of environmental display methods that consumers disliked (Ernst & Young, 2009)

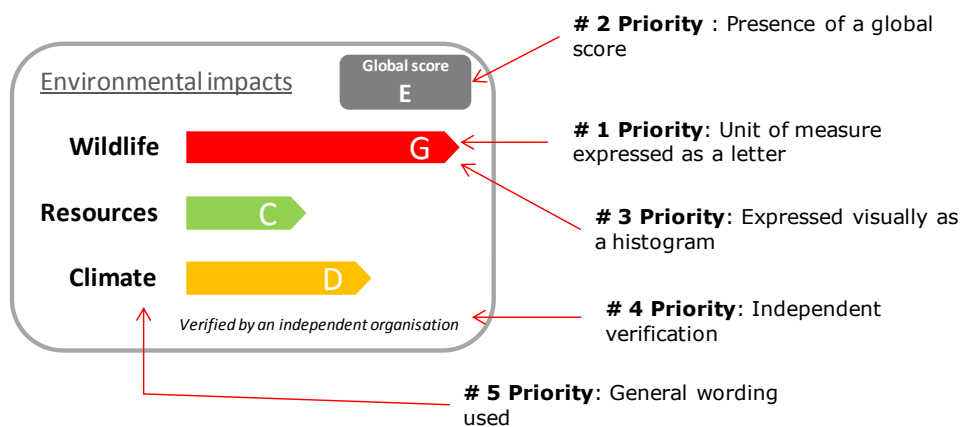


Figure 4: Aspects of environmental display methods that consumers preferred (Ernst & Young, 2009)

1.3.3 Colour coded systems

The advantage of using colours as opposed to numbers and percentages is that this method would reach a larger population (i.e. illiterate consumers would be able to easier interpret a colour coded system). In recent years, much work has been carried out on nutrition labelling for food. Although not the focus of this study, much can be learned from the findings from these efforts. Findings from various studies show that in Europe, the traffic light colour scale is widely used and easily understandable by consumers, so that it does not require a legend (see Figure 5 below for an example).

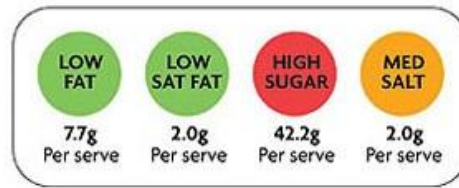


Figure 5: Example of traffic light nutritional labelling (Faculty of Public Health, 2008)

In a recent article on the colour coding for EU nutritional labels, Monique Goyens, director general of BEUC, the European consumers' organisation, said that, "Research from across Europe has told us that consumers find colour coding the easiest and simplest way to make informed and healthy choices (Banks, Martin, 2010)."

A challenge for colour-coded systems is integration with existing packaging designs. Manufacturers may be more likely to oppose a label that includes colours that do not "go well" with their design.

Given that colour seems to be an important variable to include in any future design, but which may be opposed by manufacturers, it could be useful to have evidence to show that colour is or is not an important variable to include.

1.3.4 Smartphone systems

Recent market data indicates that obtaining real-time purchase input will become increasingly common as consumers become more comfortable using their phones as a shopping tool (Microsoft Advertising, 2010). The advantages of using smartphone technology to communicate environmental information (as opposed to more classical methods such as labels and in-store displays) is that it is innovative and allows consumers to access complete information about the product on the spot. Being able to scan just the product barcode or flashcode for environmental information, rather than placing a label directly on the product or packaging could be particularly important for products that have limited space for labels. Nonetheless, there is also the risk that using this type of communication tool will not be accessible to the portion of the population that do not have access to smartphone or similar technology. This vision was also supported by a consortium of consumers' associations, who felt that the use of digital technologies to communicate information should be used only as an additional support feature for information on-pack or on-shelves (Ademe, 2011).

Much attention has been given to smartphone-based systems, yet no evidence has been found to prove their effectiveness. Testing the presence and absence of a smartphone link could provide interesting information into the usefulness of such technology.

See Figure 6 for an example of an application that communicates environmental information used with smart phone applications.

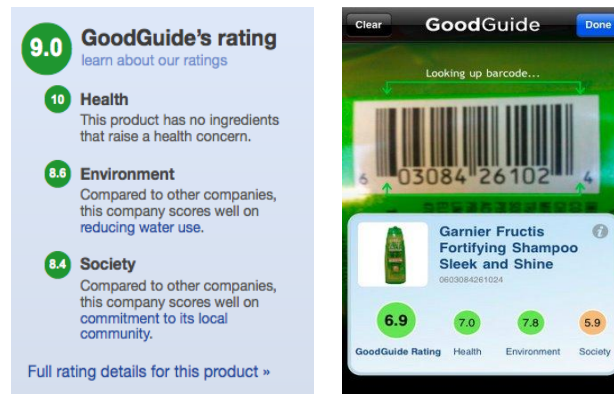


Figure 6: Smartphone application, "Good Guide"⁶

1.4 Where to communicate

There is a wide range of possible channels by which the information can be communicated. They are summarised in Table 1.

Table 1: List of communication supports

Means and Channels	
At the point of sale	On-pack : all the information is given on the packaging
	On-shelf : all the information is provided at the shelf where the product is situated
	Price terminal (with bar code), 2D code/tag + decoding device, bar code or 2D code/tag reading with cell phone (smartphone)
Close to the point of sale	Leaflet : informative document available in store
	Receipt : Information provided on the till receipt
	Representative in shops : store-employed resource or brand representative in-store during a promotion
	In-store signage and advertising : backer cards, display cartons, posters, floor decals and ceiling hangers etc.
Beyond the Point of Sale	Public Relations : field concerned with maintaining a public image for organizations
	Marketing Campaigns through television, radio, print, online
	Advertising : the purchase of advertising time / space for a company or brand through a variety of media channels
	Internet/Social Media through social networks, blogs, company websites, etc.

According to the European Food SCP Round Table, the main conclusions on where information should be communicated in the case of food and drink are (European Food Roundtable, 2011):

⁶ www.goodguide.com

- A simple message combined with a web URL or a QR/2-dimensional code on pack allowing consumers to get more information from a website or an application
- On-shelf communication seems useful for products sold without packaging such as vegetables.
- Receipts provided at the till are not suitable since consumer's purchasing is not directly impacted by the information displayed

For brown goods, research shows that due to technical information and the relatively small packaging space offered by brown goods, communicating environmental information would be most effective through a combination of different channels, such as in store displays, coupled with smartphone applications that could provide more complete information.

A study on the environmental labelling of clothing indicates that consumers prefer information attached to products and labels (Koszewska M., 2011). The real life examples reviewed of clothing labels correspond with this conclusion. In all of the cases, environmental information is placed directly on the clothing product.

Based on the literature reviewed, it seems clear that information must be provided at the point of purchase. Testing the impact of the presence/absence of a smartphone code (see section 1.3.4 above) could also serve as a test of the "belief" that additional information is available beyond the point of purchase, even if the consumer does not access it. As on-product or on-shelf information will be a required component of any future design, it was recommended to focus the experimental resources of this study on this area.

1.5 Summary of literature review findings and implications for consumer survey

Overall, there is a lack of experimental data quantifying the impact of different presentations of environmental data. Nonetheless, conclusions can be drawn from the approaches taken in existing initiatives to test and present multi-criteria environmental information. In particular, the ongoing French experimentation will likely be a source of interesting information for the Commission's future efforts in this arena.

Following are some key findings to guide the methodology and designs tested in the consumer survey:

► What to communicate

- A review of existing methods for communicating environmental information point to the use of approximately 3 indicators.

► **How to communicate**

- To make comparisons between multiple products, consumers prefer a single, aggregated metric in place of multiple, individual metrics;
- The information should come from a trusted source and, ideally, a third-party and not the manufacturer;
- Communication over multiple channels generally has the most positive effects. For example, information made available in a brochure or on a website can support the more limited information made available on an on-product label;
- Quality of information is more important than the quantity of information as too much information inhibits decision-making; and
- Physical values are considered too technical for consumers and most consumers prefer simpler units of measurements using an easy to understand rating system. Consumers favour visual markers, and in particular signs they are already familiar with (e.g. the EU energy label).

► **Where to communicate**

- The physical constraints of the packaging of small electronic products limits the opportunities for on-product information, whereas in the case of clothing and textiles, the greater surface area and the ease with which labels and stickers can be attached makes this type of communication easier.

From the above observations, the following conclusions can be made in terms of the implications for the consumer survey:

- The combination of an aggregated indicator, with up to three individual indicators, has been recommended as an effective presentation of data.
- More than three indicators are likely to confuse consumers.
- Links to additional information (generally via a website) tend to increase consumer confidence in the information, even if the consumer does not access the information.
- Colour can be a strong factor, but is often contested by manufacturers as it can be difficult to integrate into existing packaging designs.
- Information at the purchase point is necessary to impact behaviour.
- General terms for the indicators are preferred over technical descriptions (e.g. "climate change" is preferred over "CO₂-equivalent")
- Indicators of uncertainty or data reliability should be avoided on in-store and on-product information. They could be presented, however, to more advanced consumers interested in such questions via websites or other tools.

Chapter 2: Methodology of consumer survey

The primary objective of the survey was to quantify, insofar as possible, consumer understanding and perception of different visual presentations of multi-criteria environmental data on different groups of products. Based on the initial research into existing approaches of communicating single- and multi-criteria environmental information, the following iterative approach was used to produce and refine the designs.

1. A number of different designs⁷ were developed and then refined, following discussion and input from the Commission.
2. The refined designs were translated and presented to focus groups in the three target countries (Italy, Sweden, and Poland), and their feedback was collected.
3. The designs were revised based on this feedback, and further refined following additional discussion and input from the Commission.
4. The final set of designs were produced, translated and presented to 500 participants in each of the three target countries (i.e. 1,500 total respondents) via an online questionnaire.

2.1 Design of options

The initial design phase allowed different approaches to be explored. These designs ranged from simple (e.g. a single letter) to complex (e.g. a spider diagram) representations of the data. Emphasis was made to produce simple and clear labels that would allow the main design elements — such as the letters or other symbols used to signify environmental impact — to be the subject of the survey, and not incidental design elements. Figure 7 shows some examples of this early design phase.

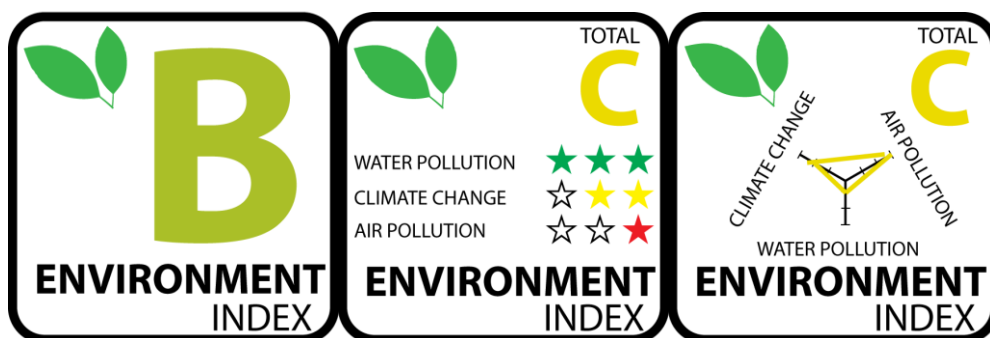


Figure 7: Example of early designs prior to revision

Following discussion with the Commission, the designs were refined and final versions were prepared for the focus groups. The six designs tested are shown in Figure 8.

⁷ For examples of these designs, please see the Annex.

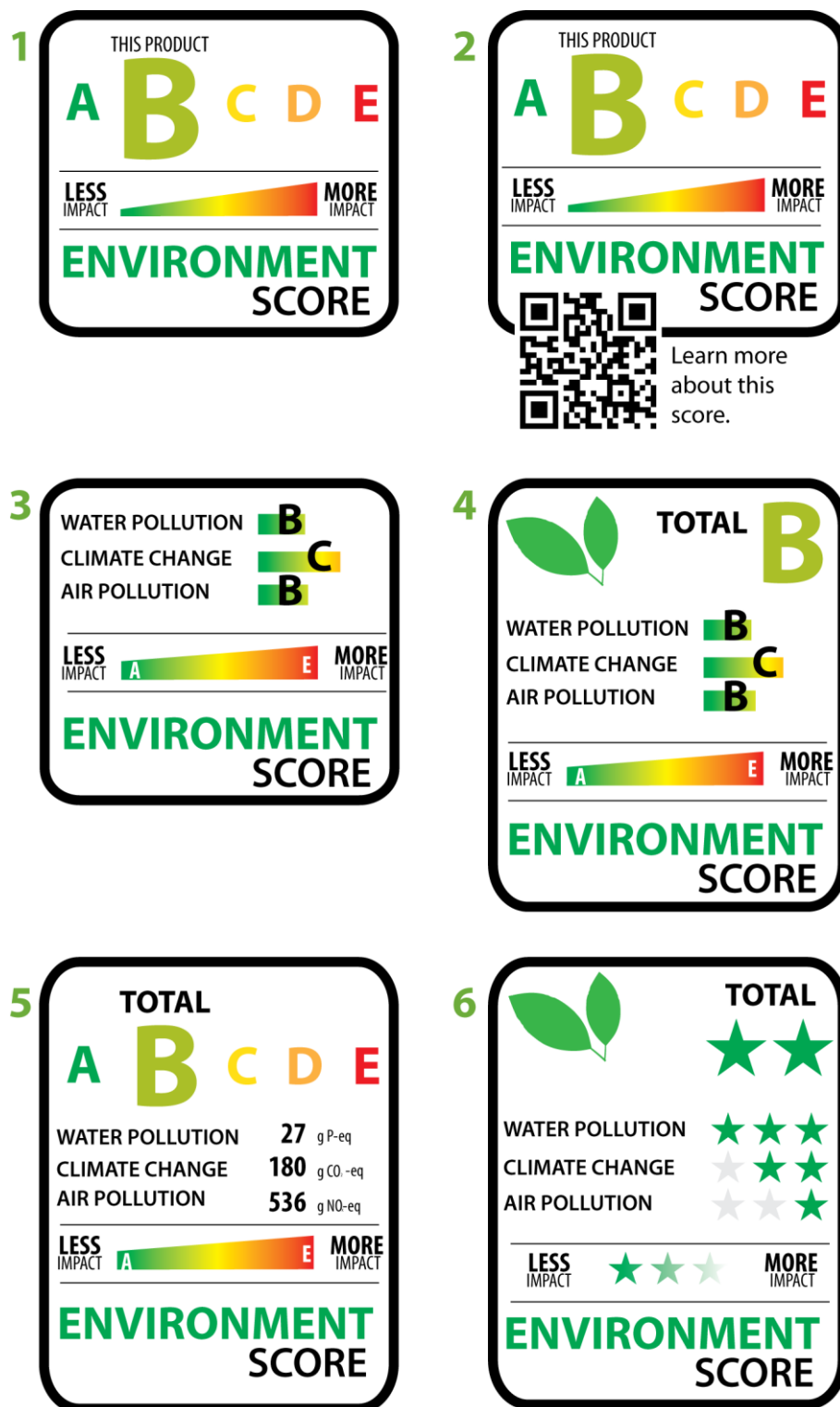


Figure 8: Designs tested via the focus group

The motivation for testing the designs in Figure 8 was as follows:

- Designs 1 and 2 would allow the presence or absence of a 2-dimensional bar code to be discussed in the focus group.
- Designs 3 and 4 would allow the presence or absence of an aggregated indicator to be discussed in the focus group.

- Designs 4 and 5 would allow the use of quantitative disaggregated indicators to be discussed.⁸
- Designs 4 and 6 would allow the use of stars in the place of letters to be discussed.

In order to guide the discussions in the focus groups, a script was prepared for the group facilitators. This script divided the discussion into two main sections. The first section explored the participants' understanding of terms such as "environmental label" and their existing motivation to seek low-impact products. The second section discussed the designs specifically.

Once finalised, the script and the label designs were then translated into the national languages of the test countries. Figure 9 shows the translated versions of Design 4, as an example.

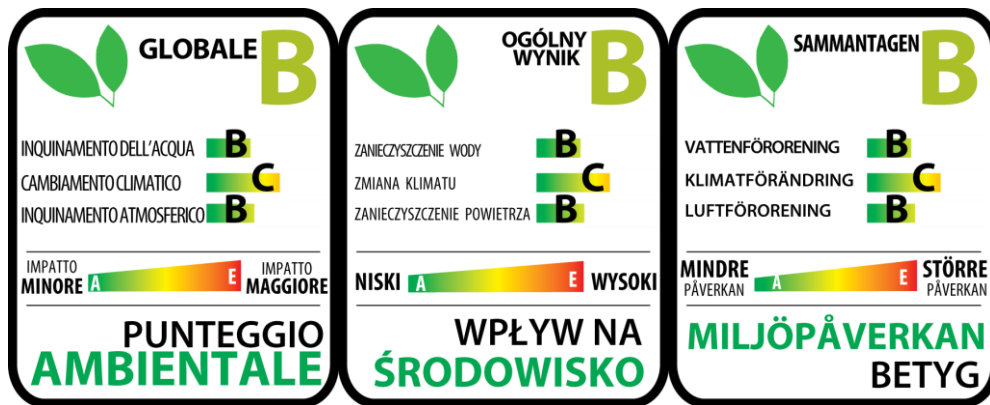


Figure 9: Design 4 translated into Italian, Polish and Swedish

2.2 Focus group

2.2.1 Structure and organisation

One focus group was organised in each of the target countries. Each focus group consisted of 8 participants. These participants were a mix of men and women, aged from 25 to 60 years old, coming from the lower and middle socio-economic classes. The participants were also identified as being the person regularly in charge of household purchases. A moderator was present to guide the focus groups, as was a note-taker to record the comments and reactions of the participants.

The moderators led the groups through the exercise using a script. General information was collected on the participants' buying habits, as well as their reactions to the designs. The designs were also considered in the context of four different product groups, namely clothing, food and drink, electronics, and household cleaning supplies. The participants were also asked to provide suggestions for improving the designs.

⁸ The quantitative values used were fictitious and do not correspond to any particular product. The values were chosen in such a way to show different units with large differences between the nominal values in the hopes of testing the possibility of consumer confusion.

2.2.2 Key findings

The reactions and comments of the focus group participants were summarised and aggregated. The main finds are presented below. It is important to keep in mind, however, that this qualitative feedback is the coming from a small sample and is thus not necessarily representative of European consumers more generally. That said, the goal of this exercise was to obtain feedback on the initial designs, so as to improve them before launching the quantitative study.

► **Concept of multi-criteria environmental impacts across product life cycles is unfamiliar**

Broadly speaking, the participants were unfamiliar with the idea that products can have environmental impacts across different impact categories over their entire life cycle.

One source of the confusion was the fact that understood that some products could have specific impacts associated with certain life-cycle phases. For example, some participants expressed an understanding of the GHG emissions associated with the energy consumed in the use phase of electrical products, or the toxicity impacts associated with the disposal of household cleaning supplies.

Some participants, however, expressed surprise and confusion when presented with the idea that a cleaning product could have caused GHG emissions before it is used.⁹

► **Any potential ambiguity in the design or the language can lead to confusion**

Given consumers' low level of general knowledge on multi-criteria environmental impacts across the life cycle, it is not surprising that any ambiguity in the design or language can lead to confusion. In particular, the participants noted the following:

- The term "Environmental score" would be more easily understood than "Environmental index".
- Normative terms such as "better" or "worse", which serve to guide the consumers action, are more easily understood than purely factual terms like "less impact" and "more impact".
- Using symbols like stars (as in Design 6) can lead to confusion as the meaning of more or less stars can be ambiguous.¹⁰

► **Aggregated indicators help understanding**

The absence of an aggregated indicator is a clear source of confusion for consumers. When presented with Design 3, they noted that a consumer would need to understand the issues of global warming, air pollution and water pollution to be able to make a judgment on the overall impact of a product, and thus influence their purchasing behaviour.

⁹ Such impacts would, in principle, be associated with its production and transportation life-cycle phases.

¹⁰ Questions were raised such as, "Are more or less stars preferable?" More stars could be understood as meaning "more impact" and therefore worse, or could be understood as meaning "a better choice" (as is the case in other contexts, such as online retailers).

▶ **Letter scales are deeply associated with the Energy Label**

Scales using a letter as an indicator of overall performance were quite familiar to the consumers. They understood quite well that an “A” product performs better than a letter lower on the scale.

▶ **Consumers have different expectations for different product groups**

Consumers expressed clear opinions about the appropriateness of different labels and impact categories for different product groups. These opinions may be the result of a superficial understanding of the environmental impact associated with products.

With regard to food and drink, and electronics, consumers expressed an understanding of certain impacts associated with these products. That said, the understanding of environmental impact was closely entwined with nutritional and health concerns (in the case of food and drink) and energy use and the related cost (in the case of electronics).

In the case of household cleaning supplies, consumers expressed an understanding of the potential for harm associated with toxic or hazardous products, but did not feel that the designs as they were presented communicated this clearly.

Finally, in the case of clothing, the participants stated that none of the designs seemed appropriate for them and suggested a simplified label, like the EU Ecolabel, to indicate if the product is “environmentally-friendly” or not.

▶ **Quantitative indicators are of mixed value**

Finally, the presence of quantitative indicators and their associated units is of mixed value. Some consumers — in particular, senior consumers — expressed confusion when presented Design 5. For them, the presence of such numbers cast doubt on their understanding of the label. At the same time, other consumers — in particular, younger generation consumers — expressed an appreciation for the indicators, saying that it increased their confidence in the accuracy of the label, even if they did not understand exactly what the numbers meant.

2.3 Refinement

Based on results of the focus group and further discussion with the Commission, the designs were refined. In order to explore each design in more detail, the total number of designs was limited to four. The four designs as they were tested are presented in Figure 10.

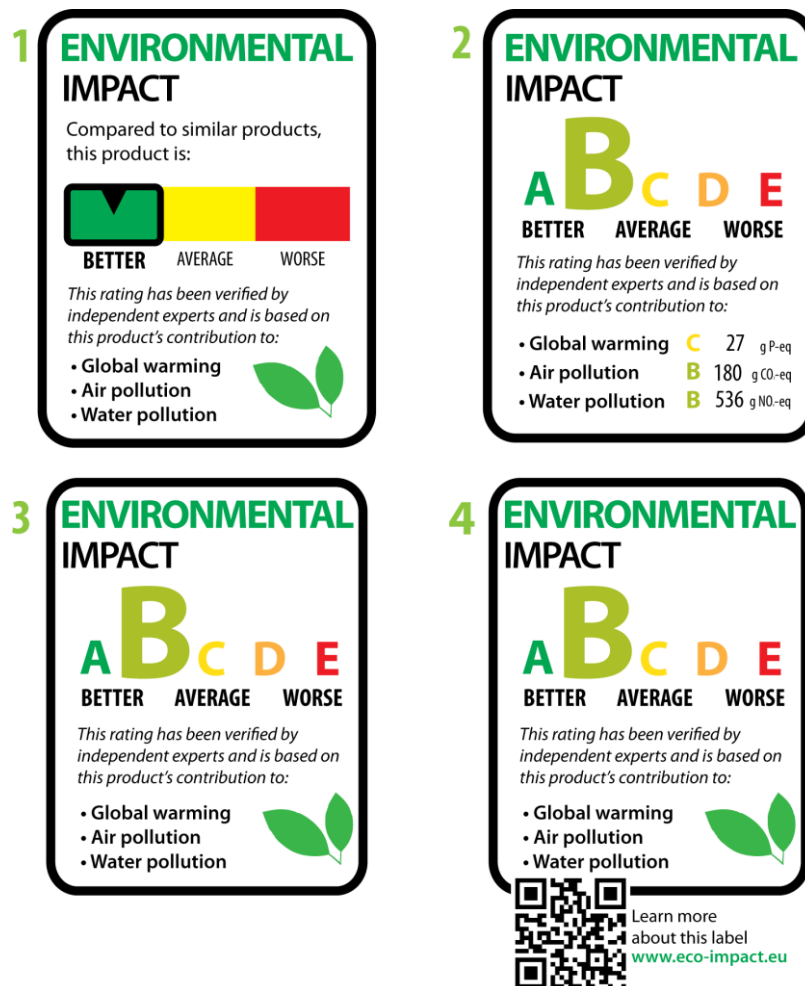


Figure 10: Refined designs tested in the quantitative survey

The following general changes were made to the designs:

- The title of the label was changed to “Environmental impact” instead of “Environmental index”, and was moved to the top of the label.
- The phrase, “This rating has been verified by independent experts and is based on this product’s contribution to: [relevant disaggregated indicators]” was added to encourage confidence in the data and methodology supporting the label.
- The colour and layout of the labels was simplified.

The motivation for testing the specific designs in Figure 10 is as follows:

- Designs 1 and 3 would test the impact of the “slider” design as compared to the letter scale.
- Designs 2 and 3 would test the impact of the presence or absence of quantitative disaggregated indicators.
- Designs 3 and 4 would test the impact of the presence or absence of a two-dimensional bar code.

A questionnaire was then developed to present the designs to the survey participants. The goal of this questionnaire was to collect their feedback on the designs and to test their understanding of the environmental information presented on the designs.

2.4 Development of survey

The survey was constructed with several sections that were presented in the following order:

- Introductory questions to measure the respondents pre-disposition towards environmental issues;
- Questions aiming to test the label's ability to communicate environmental information, which presented the same label design on two similar products, each with a different level of environmental impact, and asking the participant to choose the product with the lower impact (see Figure 11 for an example);
- Questions asking participants to rate each design across several different metrics (e.g. clarity and ease of understanding);
- Questions asking the participants whether they consider environmental impacts when purchasing products of different types; and
- A question asking if the participants are favourable or not to environmental labelling.

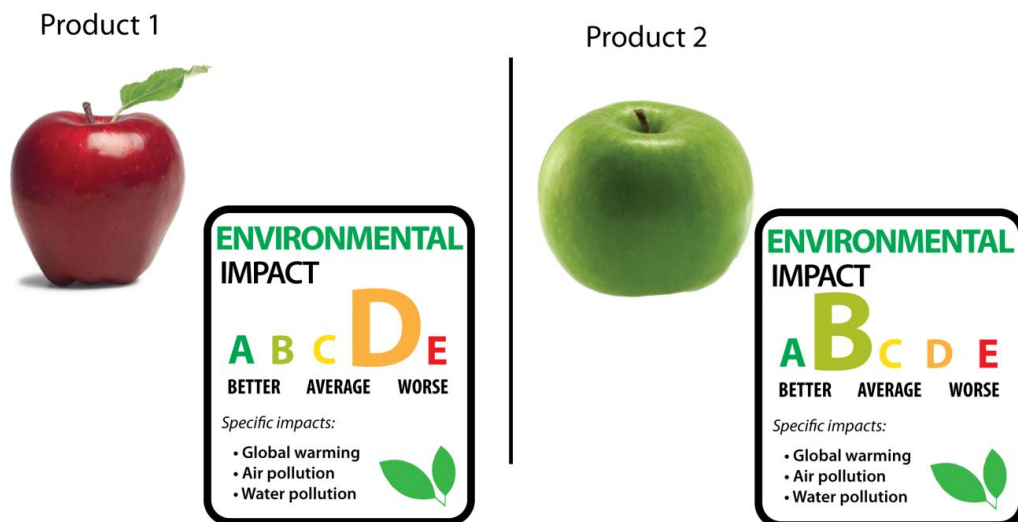


Figure 11: Example of question designed to test consumers' understanding of environmental information when presented via different designs

The translated questionnaires and designs were then presented to 500 participants in each of the three target countries via an online survey, providing the 1,500 total responses. The results were automatically collated and a statistical analysis was performed to identify the underlying trends.

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Chapter 3: Results of consumer survey

Based on the results of the focus group described above, a consumer survey was carried out to further refine the design options. The three consumer surveys were conducted through the IPSOS Online Access Panel. They were carried out in three different Member States (Poland, Italy, Sweden) to gather a statistically significant base of information on the effectiveness of the proposed designs. IPSOS's Online Access Panel gathers more than 4 million panellists in 43 countries, covering all of the major markets in Europe, North and South America, Asia-Pacific.

This chapter presents the analysis of the results of the consumer survey.

3.1 Demographic information on survey participants

The questionnaire was administered to ensure that 500 complete responses are received in each of the target countries, for a total of 1,500 complete responses. The survey participants were selected to represent the national populations (in terms of gender, age, occupation, and region). See Table 2 below, which includes detailed demographic information for the participants surveyed. The "quotas" method was used to select the participants for the consumer survey. This method selects a sample of people with similar socio-demographic characteristics that are representative of the general population. The criteria used included gender, age, occupation of the respondent, market size and region.

Table 2: Demographic information of survey participants

Demographic characteristics		Number of participants from all countries
Gender	Female	749
	Male	751
Age group	18-24 years	219
	25-34 years	334
	35-44 years	344
	44-54 years	336
	55 + years	268
Individual occupation	Managers and professionals	209
	Technicians, clerks, service workers	399
	Workers, elementary occupations, armed forces	362
	Inactive/unemployed	530
Level of education	Primary / Secondary	500
	Vocational	529
	University	421
Main household shopper	Main shopper	1,336
	Not main shopper	164
Total sample size		1,500

3.2 Consumer understanding of product environmental information

The questionnaire's section on consumer understanding of product environmental information was split into two main sections. The first section asked generic questions to gauge consumers' overall understanding of product environmental information. The second part of the questionnaire tested consumers' responses to specific label designs.

Results of the generic section of the questionnaire indicate that, overall, consumers seem to understand the concept of environmental impact of products, if only superficially. Approximately 57% of respondents claim to know and understand the concept of "the environmental impact of a product", whereas 38% have heard of the expression, although they do not really know what it means.

In terms of where product information should be placed, the survey results show that for consumers, information about the environmental impact should be provided on the product itself. Thus, the majority of respondents (68%) would prefer to find this information directly labelled on the product, rather than on the shelves next to the product (37%), on a website (21%),

on a flyer available in the store (18%), or through a mobile application (5%). Table 3 summarises the above responses.

Table 3: Quantitative summary of questions on understanding of environmental impact and where information should be located

Question	Responses				
	Yes and I know what this means	Yes, I have heard of this expression, but I do not know what it means	No, I have never heard of this expression		
Do you understand what the "environmental impact of a product" means?	57%	38%	5%		
Where should product environmental information be located?	As a label on the product itself	In the store, on the shelf near the product	On a website	On a flyer in store	On a smartphone
	68%	37%	21%	18%	5%

Following this generic section, questions were asked to test consumers' understanding of environmental information when presented via different designs that were prepared specifically for this study. The different labels (see Figure 11 on page 31 for an example) presented two similar products, each with a different level of environmental impact presented with the same design, and asking the participant to identify the product with the lower impact. The labels were tested on three different product groups. Two of the labels included an aggregate indicator (clearly signalling which product was "better" or "worse"), whereas the third contained only three disaggregated indicators (thus rendering the judgement of absolute environmental impact indeterminate). In general, the two labels with aggregate indicators showed that most consumers (84% and 86%, in the two cases) were able to successfully identify the lower-impact option. In the case of the label with no aggregate indicator, 75% of the respondents selected the same option, notably the one without a single particularly low score on any of the disaggregated indicators.

The second part of this section of the questionnaire explored consumers' reactions to specific label designs. Four different label designs were tested. It should be noted that there was not significant opposition or difficulty in understanding any of the labels tested. Of the four labels tested (see Figure 10, page 30), design 1 was the preferred choice of respondents in terms of relevancy and helpfulness in understanding of the environmental information being communicated (see Table 4 for detailed results).

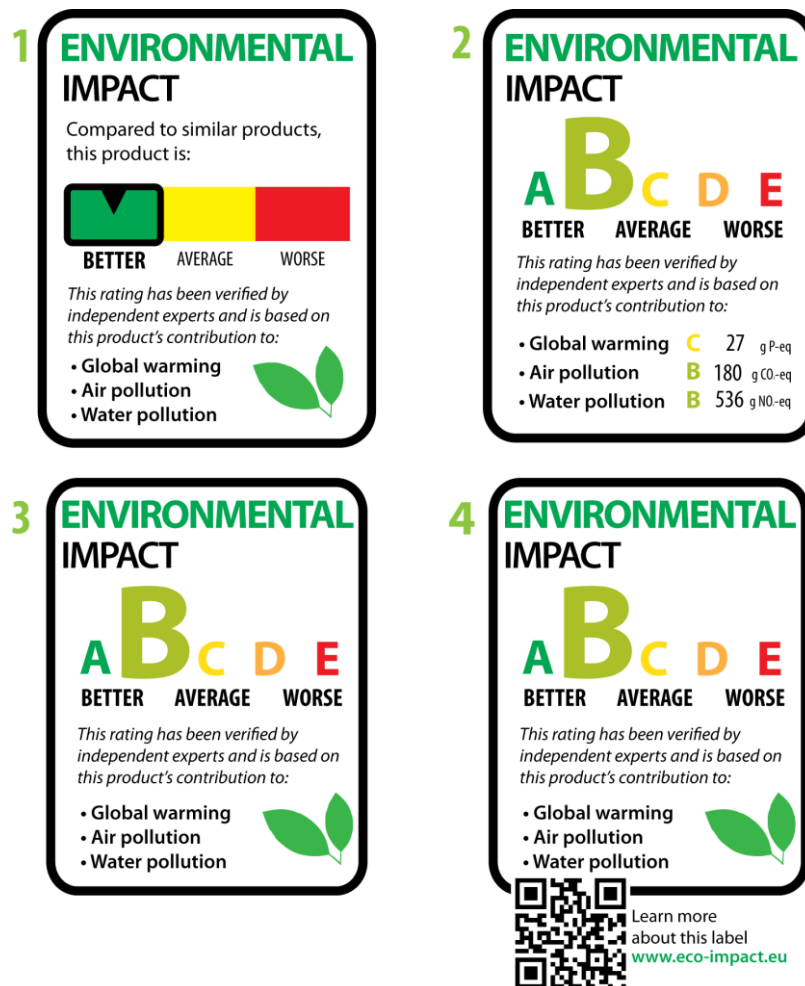


Figure 12: The four labels tested (tested versions were translated to local languages)

With regard to design 1, the following responses were received:

- The label is interesting: 91%
- The label is clear: 91%
- The label encourages the consumer to consider it before purchasing the product: 86%
- The label is easy to understand: 88%
- The label provides good information on the product's environmental performance: 79%

Overall, the majority of respondents preferred design 1 in terms of communicating environmental information (49%). This is compared to 32% who preferred design 2, 8% who preferred design 3 and 11% who preferred design 4.

Design 1 stood out from the other three options on nearly all of the metrics, consistently across the three countries. The only criterion for which design 1 was not first choice was on the aspect related to “the label provides good information on the product’s environmental impact”. Respondents from Sweden and Italy preferred design 2 in this case.

With these results in mind, design 1 seems to be the most efficient in terms of consumer understanding of the information communicated. This is most likely due to not only the

qualitative and thus straightforward description of the product's environmental performance, but also thanks to the colour-coded system that is used in parallel. This brings further clarity and understanding to consumers.

Table 4: Quantitative summary of how helpful the label is in purchasing decision¹¹

To what extent is the label relevant and helpful in your purchasing decision?							
Labels	Response	Label is clear	Label is interesting	Easy to understand information	Encourages me to look at it before purchase	Encourages purchasing decision	Provides good info on env. impact of product
Design 1	Very helpful	56%	50%	51%	46%	45%	43%
	Somewhat helpful	35%	41%	37%	40%	41%	36%
Helpful %		91%	91%	88%	86%	86%	79%
Design 2	Very helpful	41%	39%	33%	37%	37%	37%
	Somewhat helpful	41%	48%	41%	44%	43%	43%
Helpful %		82%	87%	74%	81%	80%	80%
Design 3	Very helpful	40%	39%	36%	35%	35%	31%
	Somewhat helpful	45%	48%	45%	46%	47%	45%
Helpful %		85%	87%	81%	81%	82%	76%
Design 4	Very helpful	35%	36%	32%	32%	31%	28%
	Somewhat helpful	48%	48%	45%	47%	47%	47%
Helpful %		83%	84%	77%	79%	78%	75%

3.3 Consumer expectations for product environmental information

When asked on which products they would most likely seek environmental information, the respondents indicated food, fruits and vegetables, cosmetics, household appliances, and

¹¹ Please note that the table only provides the responses « Very helpful » and « somewhat helpful » of the respondents. The responses « somewhat helpful » and « very unhelpful » were also a possibility

cleaning products and maintenance. The top two items for which environmental labels are sought are food items, whereas the others have health and safety considerations. This finding corresponds closely to what has been observed in existing literature. Consumers often link environmental performance with health benefits, which is a very important factor in purchasing decision.

For consumer electronics, toys, clothing, and household linen, consumers pay slightly less attention to environmental labels, even if they remain alert to this aspect when buying. This could be explained in part by the fact that, for items such as electronic appliances (music systems, computers, etc.), technical performance is usually a significant factor in purchase decision. Similarly, for items such as clothing, textiles, and shoes, purchasing decision is very often linked to personal preferences above all. Clothing is a way to express personal and individual identity in society, therefore purchasing decisions are often influenced by evolving fashion trends, rather than environmental performance.

Overall, in all three countries tested, consumer expectations for environmental labelling are real. In these countries, 96% of respondents favour the establishment of environmental labelling—of which 65% are very favourable. Only about 4% of respondents are strongly opposed.

3.4 Summary of key findings

Following are the main findings from the analysis of the consumer survey results and literature review:

- Consumers express a desire for environmental information, but only about half look for it. The information therefore needs to be obvious (impossible to miss) and explicit (impossible to misunderstand).
- Consumers think differently about different categories of products:
 - Connect environmental impact to human health (food, cosmetics)
 - Strong understanding of energy use (brown goods, EEE)
 - Understanding of toxicity (cleaning supplies)
- Generally, there is little understanding of life-cycle impacts of a product (e.g. the focus group participants had a difficulty understanding that a product can have an impact before the use and disposal phases)
- A strong case can be made for the use of normative (or qualitative) language when communicating environmental information. This means using “Better” or “Worse” instead of the purely factual “Less impact” or “More impact”.
- Aggregated indicators are very helpful for consumers, though they do introduce significant technical and policy challenges to the process.
- Consumers expect the relevant information to be available at their point of decision. This would generally mean on the product or shelf. For most products, consumers are unlikely to be willing to look up a product on a smartphone or to visit a website in order to inform their decision. Such media, however, could be useful places to present

supporting information (e.g. methodology used, explanation of the indicator), that would seek to increase consumer understanding and trust in the label.

- Overall, the results of the consumer surveys indicate that there were few differences among the three MS tested. Results of the consumer surveys carried out in the context of this study also closely correspond to a recent consumer survey carried out in France (Ernst & Young, 2009). Results from both surveys emphasise:
 - The importance of having a global aggregated note that allows for easy comparison amongst products
 - The importance of a colour coded scheme to facilitate quicker understanding of the information
 - The importance of the information verified by an independent party
 - Consumers prefer ranking systems using letters, rather than just the technical environmental indicators

3.5 Selection of most optimal design options

The results of the results of the focus groups and the quantitative survey were analysed together and were then discussed with the Commission. From this basis, the designs in Figure 13 were proposed as having the optimal combination of elements, based on the parameters explored in this study.

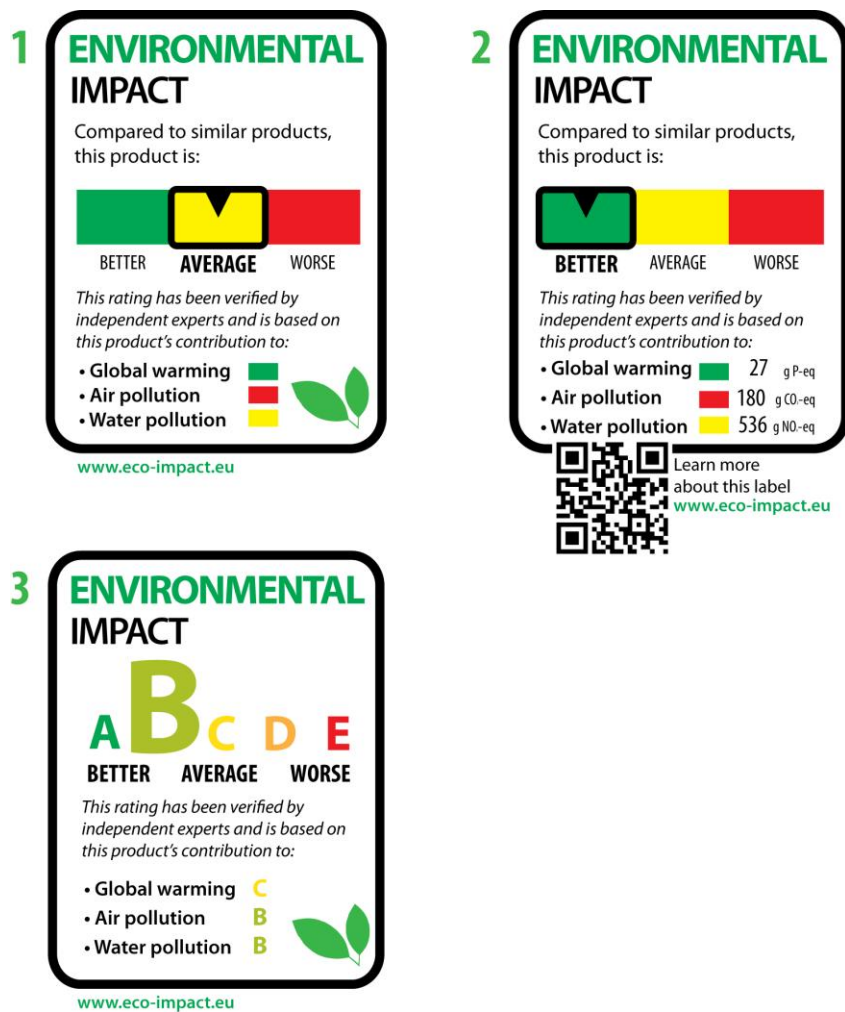


Figure 13: Optimised label designs

The main changes to the designs are as follows:

- The addition of coloured indicators for the disaggregated impact categories in Designs 1 and 2.
- The addition of a URL¹² in all designs.
- The addition of quantitative data to Design 2 and the removal of quantitative data from Design 3.

¹² The URL, www.eco-impact.eu, is for illustrative purposes only.

Chapter 4: Legal considerations

Potential legal implications are a key aspect related to communicating environmental information and product labels. Over the last years, the implications of WTO rules on environmental labelling have received much attention in legal debates, particularly concerning the labelling of genetically modified organisms. Labelling has been discussed controversially in the WTO Committee on Technical Barriers to Trade (TBT Committee), and on 15 September 2011 a WTO panel adopted a landmark decision on environmental labelling. In this decision, the panel ruled on a US labelling scheme that prohibited the misleading use of the term “dolphin safe” and introduced rules on certifying tuna.¹³ In the case of an appeal, the WTO Appellate Body would review and possibly repeal the panel’s decision. Despite the possibility of an appeal, the panel decision provides important insights into how the WTO dispute settlement bodies handle environmental labelling schemes.

The following analysis is based on this decision and a brief review of more recent literature. It clarifies the broad lines of the WTO’s consistency on environmental labels directed at consumers and discusses the relevant provisions of the TBT Agreement (TBT) and the General Agreement on Tariffs and Trade (GATT). With discussions on reforming EU labelling still underway, the analysis remains generic. We emphasise that this analysis discusses only in general terms the WTO rules that lawmakers must observe when adopting legislation on environmental labels directed at consumers. As the devil lies in the details, it is indispensable to scrutinise the details of each newly proposed labelling scheme in light of applicable WTO provisions. In addition, many of the issues discussed in this chapter have not yet been decided by the WTO dispute settlement. Therefore, this chapter can only provide an indication of the likely position of the WTO dispute settlement, but does not and cannot constitute a final conclusion.

This analysis focuses on the labelling of products and does not refer to the labelling of services.

Generally speaking, it is possible to categorise labelling schemes pursuant to three criteria:

- Government involvement (whether the scheme is administered by public authorities or privately sponsored);
- Their legal effect (whether labelling is mandatory or voluntary); a labelling system is regarded as mandatory when the award of the label functions as a legally binding market access requirement; otherwise, it is classified as voluntary.¹⁴
- Their scope (whether they apply to product-related characteristics only, or whether they — also or exclusively — cover process and production methods (PPM)).

¹³ WTO, United States — Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, Report of the Panel, 15 September 2011, WT/DS381/R, www.wto.org/english/tratop_e/dispu_e/cases_e/ds381_e.htm

¹⁴ Vranes, Erich, 2010, Climate Labelling and the WTO - The 2010 EU Ecolabelling Programme as a Test Case under WTO Law

4.1 Applicable WTO Agreements

Two WTO agreements are applicable to environmental labelling: the TBT and the GATT. All 153 WTO members are parties to the GATT and TBT, which entered into force in 1947 and 1995 respectively.¹⁵

The TBT applies to technical regulations and standards. It aims at reducing (non-tariff) barriers to trade and sets requirements for the permissibility of technical regulations and standards.

According to Annex 1.1 TBT, a technical regulation is a:

“

[d]ocument which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, **with which compliance is mandatory**. It may also include or deal exclusively with terminology, symbols, packaging, marking or **labelling** requirements as they apply to a product, process or production method” (emphasis added).

According to Annex 1.2 TBT, a standard is a:

“

[d]ocument approved by a recognised body, that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, **with which compliance is not mandatory**. It may also include or deal exclusively with terminology, symbols, packaging, marking or **labelling** requirements as they apply to a product, process or production method” (emphasis added).

WTO dispute settlement bodies have decided that labelling schemes fulfil these definitions, in principle, and can thus, when mandatory, be considered a technical regulation.¹⁶ As Annex 1.1 and 1.2 TBT are worded similarly, this reasoning can be applied *mutatis mutandis* to voluntary labelling schemes. In consequence, the TBT applies, in principle, to labelling schemes established and administered by a WTO Member, irrespective of whether they are mandatory or voluntary in nature. They are, however, subject to slightly different rules.

Moreover, there has been a controversy about whether the TBT only applies to product-related labels, i.e. labels that describe the immediate characteristics of a certain product only (e.g. its energy efficiency or genetic modification) or also to non-product related process and production method (PPM) labels. Non-product related PPM-labels describe the environmental footprint of a product during its production (e.g. carbon emissions caused during its production). Some have argued that the TBT should be narrowly interpreted to only cover product-related environmental

¹⁵ Status of ratification: http://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm, note that the GATT has undergone significant amendments since its adoption in 1947.

¹⁶ WTO, United States — Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, Report of the Panel, para. 7.71 with further references.

labels.¹⁷ However, in the recent Mexico-US Tuna case, the WTO panel has decided that the rules on the use of the label “dolphin-safe” represented a technical regulation in line with Annex 1.1 TBT.¹⁸ As the label “dolphin-safe” relates to the way that tuna was caught (and not to its physical properties), this implies a rejection of the above, narrow reading of the TBT as only covering product-related standards that relate to the physical characteristics and the performance of a product. However, it remains to be seen, what the Appellate Body will say on the matter.

The GATT, in turn, contains general rules on trade in goods. Its most relevant Article (Art. III:4, see below) covers “all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use.” This broad definition includes environmental labelling schemes.

Concerning the relationship between both agreements, the Note to Annex 1A to the WTO Agreement stipulates that the TBT Agreement shall prevail over GATT in the case of a conflict between the two agreements. If there is no such conflict, the WTO case law so far indicates that both the TBT and GATT are applicable to a given measure.¹⁹ Because the TBT Agreement is the more specific agreement when it comes to labelling, a WTO dispute settlement panel would probably first assess a labelling measure under the TBT and only after this under the GATT.²⁰ However, this does not mean that only the TBT is applicable.

4.1.1 Agreement on Technical Barriers to Trade (TBT)

The TBT agreement contains formally different rules for mandatory and non-mandatory legislation. For this reason, it is necessary to clarify which forms EU legislation on environmental labelling could take and whether they would be of mandatory or voluntary character. The following types are conceivable:

- Type 1: A scheme that business actors can use, but whose use is not mandatory.
- Type 2: A scheme that introduces no obligation to provide environmental information but requires business to comply with specific requirements if they have decided to display environmental information.
- Type 3: Legislation that obliges business actors to provide certain environmental information for certain products and makes the provision of such information a condition for market access.

Type 1 is clearly voluntary in nature, and would thus be a “standard” according to TBT terminology, provided that the other requirements for a standard in Annex 1, para. 2 TBT are also fulfilled. Type 3, in turn, is clearly mandatory and therefore a “technical regulation” in TBT

¹⁷ Vranes, Erich, 2010, Climate Labelling and the WTO - The 2010 EU Ecolabelling Programme as a Test Case under WTO Law and Joshi, Manoj, 2004, Are Eco-Labels Consistent with World Trade Organization Agreements?, *Journal of World Trade* Vol. 38:1, p. 69-92

¹⁸ WTO, United States — Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, Report of the Panel, para. 7.78f.

¹⁹ See Koebele, in Wolfrum et al, 2007, p. 183

²⁰ Idem.

terminology. Defining Type 2 measures is more difficult. In the recent Mexico-Tuna case, the panel decided that the US labelling scheme fell in the Type 2 category. Mexican tuna importers could use the label “dolphin safe” under certain conditions, but were not required to do so as a pre-condition for exporting their tuna to the US. Based on an earlier Appellate Body case, the panel in the Mexico-Tuna case decided that the US tuna labelling rules were mandatory in character.²¹ However, it should be noted that the Mexico-Tuna decision contains an extensive dissenting opinion of one (out of three) panel members on this matter. The dissenting member qualified type 2 measures as voluntary. Dissenting opinions are unusual in WTO jurisprudence. This shows that there is a certain degree of legal uncertainty concerning type 2 measures.

4.1.1.1 MANDATORY LABELLING SCHEMES

Art. 2 of the TBT contains a number of requirements that mandatory labelling rules, i.e. technical regulations, have to meet. In addition, Art. 5-9 TBT contain rules on conformity assessments, which will be relevant if the EU integrates rules on verification of compliance in its future legislative framework. The latter apply to situations where “a positive assurance of conformity with technical regulations or standards is required”, as may be the case with an EU environmental labeling scheme. The most important ones are the following:

► National treatment: Art. 2.1., Art. 5.1.1 TBT

Art. 2.1 TBT contains a national treatment rule. Art. 5.1.1 TBT reiterates this rule for conducting conformity assessments.

The national treatment rules stipulate that “in respect of technical regulations, products imported from the territory of any Member shall be accorded **treatment no less favourable than that accorded to like products** of national origin and to like products originating in any other country.” Accordingly, this provision forbids any differentiation between imported products and like products of national origin to the disadvantage of importers. Article 2.1., 5.1.1 TBT prohibit discrimination between domestic and imported products that are alike.

The first question concerning this clause is what constitutes a “like product.” The Mexico-Tuna panel was the first WTO panel to interpret the term in the context of Art. 2.1 TBT. However, the term is also contained in Art. III:4 GATT, which has been extensively discussed in WTO jurisprudence.²² In this context, there is a long-standing debate about whether different process and production methods that do not have any bearing on the physical, chemical, health, or other properties of a final product (e.g. emissions caused in the production process, amount of water used, etc.) make two products that are otherwise identical “unlike.” For example, is a bottle of Sauvignon white wine grown organically “like” the same wine produced in a conventional manner? This discussion is of relevance for environmental labelling to the extent that specific products receive a label, and others do not, e.g. if according to EU legislation certain products receive a label as “environmentally friendly” (e.g. organic agricultural products), whereas other

²¹ WTO, United States — Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, paras. 7.113ff.

²² The Panel in the Mexico – Tuna case found the prior jurisprudence under Art. III:4 GATT to be of relevance to the interpretation of Art. 2.1 TBT as well.

similar products do not. The issue is of lesser (or no) relevance for a scheme where ALL products of a certain type (e.g. food products) must be labelled with certain factual and neutral environmental information (e.g. the emissions caused in its production).

In order to determine whether two products are like, the WTO dispute settlement bodies use the following criteria:²³

- Physical properties of the products;
- Extent to which the products are capable of serving the same or similar end-uses;
- Extent to which consumers perceive and treat the products as alternative means of performing particular functions in order to satisfy a particular want or demand;
- International classification of the products for tariff purposes; and
- In addition to these concrete criteria, the competitive relationship between the domestic and imported product is another criterion to determine whether two products are alike or not.

When it comes to products that are identical with the only exception of the way they were produced, the only criterion²⁴ that could normally make two products “unlike” is consumer perception.²⁵ However, in the Mexico-US Tuna case the panel decided that Mexican tuna and US tuna were like products, as Mexican tuna was not perceived as being different from US tuna by consumers. All Mexican tuna, including Mexican tuna that was “dolphin unfriendly” according to US standards, was thus considered to be “like” dolphin friendly US tuna. Because consumer perceptions will generally not differ based on the origin of a product or its environmental performance, it is likely that products that only differ because of production methods would be classified as like products if one follows the Panel’s line of reasoning. In addition, the Panel recognised that there is a clear competitive relationship between tuna caught in a dolphin-friendly manner and other tuna.²⁶ Similarly, there is a competitive relationship between other products produced in a more environmentally sound way and the same products produced in a less environmentally friendly way.

Articles 2.1, 5.1.1 TBT forbid only discrimination and contain no rules on technical regulations that equally apply to domestic and imported products. A technical regulation is only in conflict with Article 2.1. TBT if it treats imported products less favourably than domestic products, and according to Art. 5.1.1 TBT the same applies to the way that conformity assessments are conducted. Importantly, Article 2.1, 5.1.1. TBT forbid any distinction to the disadvantage of imported products. It is irrelevant whether different treatment of imported and domestic

²³ The first case in which this was recognized was *Japan – Taxes on Alcoholic Beverages*, WT/DS8/AB/R, WT/DS9/AB/R, WT/DS10/AB/R; for a later case see for example Appellate Body Report, *EC – Asbestos*, para. 102.

²⁴ Once it has been settled to which products the proposed EU environmental information legislation should apply, tariff classification can be reviewed. However, it is not to be expected that, e.g. organic and non-organic products have different tariff classifications. At the WTO level, negotiations on reducing tariffs on environmental goods have been conducted for years but have not been brought to a conclusion.

²⁵ This point was, indeed, made by the EU in a third-party submission in the Mexico-Tuna case, see para. 7.248 of the Panel report.

²⁶ Regardless of the outcome of this case, it is noteworthy that unlike products can fall within the same product group of a labelling scheme. Conversely, like products could fall in different product groups of a labelling scheme.

products has an impact or not — there is no *de minimis* rule which would tolerate minimal impacts.

It should also be stressed that WTO law does not only forbid *de jure*, i.e. formally unfavourable treatment (e.g. a rule that imported products must have a label and domestic ones not) but also *de facto* unfavourable treatment. A *de facto* discrimination exists when imported products fall predominately into the disadvantaged group of products or if a regulation has a disparate impact on foreign and domestic like products, thereby altering the competitive conditions for an imported product.²⁷ An example of *de facto* discrimination would be a requirement that environmental labels may only be issued for products that have been certified in the EU, which would represent a higher hurdle for non-EU producers than for EU producers. As labelling schemes are very unlikely to formally differentiate on the basis of the product's origin, *de facto* discriminations are the more likely risk scenario.

Applying these general rules, labelling schemes incur a risk of leading to a *de facto* discrimination: (newly) imported products depend generally on marketing efforts to enter a market successfully, while established products require less marketing. This tends to reinforce a competitive disadvantage for products that are not yet labelled.²⁸ However, it depends on the details of each specific labelling scheme whether the scheme constitutes an unlawful discrimination, in particular, against new entrants. In the Mexico-US tuna case, the panel found, for example, that the US dolphin safe labelling provisions did not discriminate against Mexican tuna products and are therefore consistent with Article 2.1 TBT. The panel concluded that Mexican tuna products are not afforded less favourable treatment than tuna products of US and other origins in respect of the US dolphin safe labelling provisions on the basis of their origin.²⁹ Similarly, EU environmental labelling requirements could be considered non-discriminatory if applied both to EU and non-EU products.

In summary, the EU must make sure that neither labelling rules nor the way that a conformity assessment is conducted discriminate against foreign producers and importers.

► **Proportionality: Art. 2.2, 5.1.2, 5.2 TBT**

According to Article 2.2. TBT, Member States may not adopt technical regulations that create “unnecessary obstacles to international trade” and according to Art. 5.1.2 TBT conformity assessment procedures must “not be prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade”. Specifically, Art. 2.2. stipulates that “technical regulations shall not be more trade-restrictive than necessary to fulfil a legitimate objective, taking account of the risks non-fulfilment would create” and defines a number of such legitimate objectives, such as the protection of human health or the environment. Art. 5.1.2 says that “conformity assessment procedures shall not be more strict or be applied more strictly than is necessary to give the importing Member adequate confidence that products conform with the

²⁷ Vranes, Erich, 2010, Climate Labelling and the WTO - The 2010 EU Ecolabelling Programme as a Test Case under WTO Law

²⁸ Vranes, Erich, 2010, Climate Labelling and the WTO - The 2010 EU Ecolabelling Programme as a Test Case under WTO Law

²⁹ WTO, United States — Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, paras. 7.113ff.

applicable technical regulations or standards, taking account of the risks non-conformity would create". Art. 5.2 contains a number of different requirements for conformity assessments that spell out in greater details the general principle in Art. 5.1.2. In effect, these norms enshrine a proportionality rule.

In EC-Sardines, the panel ruled on Art. 2.2 TBT that "Members cannot create obstacles to trade which are unnecessary or which, in their application, amount to arbitrary or unjustifiable discrimination or a disguised restriction on international trade."³⁰ In this context, the panel found in the Mexico-US tuna case that "the analysis involves an assessment of the degree of trade-restrictiveness of the measure at issue in relation to what is "necessary" for the fulfilment of the legitimate objective being pursued, and this can be measured against possible alternative measures that would achieve the same result with a lesser degree of trade-restrictiveness."³¹ This means that the necessity of a measure always has to be confirmed by comparing it with possible alternatives. The panel therefore found that "in order to determine whether a measure is more trade restrictive than necessary within the meaning of Article 2.2, we must assess the manner in which and the extent to which the measures at issue fulfil their objectives, taking into account the Member's chosen level of protection, and compare this with a potential less trade restrictive alternative measure, in order to determine whether such alternative measure would similarly fulfil the objectives pursued by the technical regulation at the Member's chosen level of protection."³²

Applying these principles, the panel found a violation of Art. 2.2 TBT by the US. It concluded that the US dolphin safe labelling provisions are more trade restrictive than necessary to fulfil the legitimate objectives. The panel found that the US dolphin safe labelling provisions only partly address the legitimate objectives pursued by the United States and that Mexico had provided the panel with a less trade-restrictive alternative capable of achieving the same level of protection of the objective pursued by the US dolphin safe labelling provisions.³³

As a result, the EU has to find the least trade-restrictive measure to enable any new labelling scheme in order to comply with Art. 2.2 TBT. Therefore, any new measure should be weighed against possible alternatives. The existing case law shows that a claimant can bring up alternatives in a WTO settlement and prove that these are less trade restrictive. Consequently, the proportionality of a labelling measure depends on each individual case. Proportionality could concern, for example, the issue where information is displayed (on the package/shelf), the use of primary/secondary data and the voluntary/mandatory nature of a scheme (see below). However, WTO law only forbids more trade-restrictive measures that are *equally effective* for reaching the EU's desired environmental level of protection. For this reason, the EU should define the level of protection and should prove why/why not different regulatory approaches would be effective in

³⁰ European Communities – Trade Description of Sardines, Report of the Panel, 29 May 2002, WT/DS231/R, para. 7.120 [<http://www.tilj.org/journal/42/andenas-zleptnig/Andenas-Zleptnig%2042%20Tex%20Intl%20LJ%20371.pdf>]

³¹ WTO, United States — Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, para. 7.458.

³² WTO Dispute Settlement: Dispute 381 United States — Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, www.wto.org/english/tratop_e/dispu_e/cases_e/ds381_e.htm

³³ Idem.

attaining the environmental objectives of the labelling scheme. These are factual questions that need to be addressed in light of the details of each individual labelling scheme.

The issues of the location of the information and the data source are discussed more in-depth further below. Concerning the use of a voluntary/mandatory labelling scheme, the EU must assess whether a voluntary labelling scheme is less trade restrictive than – and equally effective in informing consumers as – a mandatory system. However, voluntary schemes are often found to be less effective than mandatory ones in reaching the EU's desired environmental protection level.

Concerning conformity assessments, the EU must, again, secure that they are conducted in the least burdensome way for importers which, at the same time, is still effective for assessing conformity with the EU rules.

► **International Standards: Art. 2.4, 5.4 TBT**

Art. 2.4 TBT determines that, where international standards exist for technical regulations, “[m]embers shall use them, or the relevant parts of them, as a basis for their technical regulations except when such international standards or relevant parts would be an ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued.” Art. 5.4 TBT contains a similar rule for conformity assessments.

There are several international standards on environmental labelling that thus need to be taken into consideration. Numerous organisations have adopted standards for environmental labelling. Most notably the International Organization for Standardization (ISO) has set international standards for labelling of the environmental performance of products or services that should be taken into account.³⁴ These international standards apply to voluntary and mandatory labelling schemes alike. ISO 14020 sets out general principles that apply to all environmental claims and labelling schemes. In detail, there are different ISO standards for three types of labels. :

- ISO 14024 -Third Party - (Type I environmental labelling),
- ISO 14021- Self-declared environmental claims (Type II environmental labelling),
- ISO 14025- Environmental Product declarations - (Type III environmental declarations).

The following Table 5 gives an overview of ISO standards relevant for environmental labelling:

³⁴ Annex 1 TBT refers to ISO definitions and Annex 3 TBT assigns certain tasks to the ISO under the TBT. It is thus very plausible to assume that ISO standards are standards in the sense of the TBT, even though the agreement does not say that explicitly, see Humberto Zúñiga Schroder (2009): Definition of the Concept 'International Standard' in the TBT Agreement, *Journal of World Trade* Vol. 43:6, p. 1223-1254

Table 5: ISO standards relevant for environmental labelling

Standard	Description
Type I – Third Party Certified Environmental Labelling: ISO 14024	According to ISO-14024, environmental labelling is "a voluntary, multiple-criteria based, third party program that awards a license which authorizes the use of environmental labels on products indicating overall environmental preferability of a product within a particular product category based on life cycle considerations."
Type II – Self-declared environmental claims: ISO 14021	ISO 14021 specifies requirements for self-declared environmental claims including statements, symbols, and graphics on products. This means that manufacturers, importers, or distributors of products make environmental claims about their goods (e.g. made from XY% of recycled goods). ISO 14021 requires that all claims have to be backed by bona fide and readily available third-party information. There also has to be an explanatory statement, which explains the reason for the claim.
Type III – Environmental Product Declarations (EPDs): ISO 14025 defines	ISO 14025 defines EPDs as "quantified environmental data for a product with pre-set categories of parameters based on the ISO 14040 series of standards, but not excluding additional environmental information." Type III labels are awarded based on a full life cycle assessment. The parameters are set by a qualified third party and verified by that or another qualified third party. Type III labels enable the customer to compare between products fulfilling the same function without judging the products. Examples are the Fair Trade label or the Forest Stewardship Council label.

Against this background, labels must be based on international standards, either entirely or the relevant parts of them. Whenever there is an applicable standard, it must be taken into account. ISO-14024, 14021, and 14025 are examples of relevant ISO standards. Accordingly, new label schemes would have to be based on those ISO standards.

However, article 2.4 TBT provides for an exception to this general rule: mandatory labels need not be based on international standards when such "standards or relevant parts would be an ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued." Art. 5.4 TBT contains a similar rule for conformity assessments. Ineffective or inappropriate means were defined by the panel in the EC - Sardines case where Peru complained that a European regulation prevented Peruvian exporters from continuing to use the trade description "sardines" for their products: "[...] in the context of Article 2.4, an ineffective means is a means which does not have the function of accomplishing the legitimate objective pursued, whereas an inappropriate means is a means which is not specially suitable for the fulfilment of the legitimate objective pursued. An inappropriate means will not necessarily be an ineffective means and vice versa."³⁵ In summary, "ineffective" stands for "not having a result" and inappropriate for "not specifically fitting or suitable."

³⁵ European Communities – Trade Description of Sardines, Report of the Panel, 29 May 2002, WT/DS231/R, para. 7.116

In the Mexico-US tuna case, the panel found that the relevant international standard for the purposes of the US dolphin safe provisions existed and that the United States had not used it as basis for its measures. However, the panel concluded that the international standard would not be appropriate or effective to achieve the US objectives, as it did not fulfil one of the two US regulatory objectives, i.e., avoiding consumers from being misled or deceived (WTO, 2011). Therefore, the exemption of Art. 2.4 TBT applied and it did not matter that the US had not based its label on existing international standards.

As a result, the EU can introduce labels that are not based on existing international standards and nonetheless comply with Art. 2.4 TBT if there is a legitimate objective which is not properly covered by the standards. Whether the exemption, however, can be applied to a certain label, depends on the individual case.

► Environmental exemption clause

Unlike the GATT, the TBT does not contain a general environmental exemption clause. It has been suggested that, in one way or another, an exemption for environmental measures — similar to Art. XX of the GATT — is built into the TBT.³⁶ This line of argument builds on the preamble of the TBT, which recognizes that countries may take “measures necessary [...] for the protection [...] of the environment.” However, the absence of a provision similar to Art. XX GATT is a strong argument against an unwritten exemption clause. In addition, Art. 2.2 TBT makes reference to objectives in pursuit of which it is legitimate to restrict trade. In this sense, Art. 2.2. serves a similar purpose as the general exception clause of Art. XX of the GATT. This line of argument is supported by the recent Mexico-US tuna decision. In this case, the panel did not discuss any environmental exemptions after having found that the US had violated Art. 2.2 TBT. This casts doubt on whether the WTO dispute settlement bodies, which generally put a lot of emphasis on the literal interpretation of the WTO agreements, would be willing to accept such an unwritten environmental exemption under the TBT.

4.1.1.2 **TBT RULES ON NON-MANDATORY LABELLING SCHEMES**

The TBT includes a number of rules for the preparation of (voluntary) standards, such as labelling rules. These are contained in Art. 4 TBT. Art. 4 mandates that WTO members should ensure that their “central government standardizing bodies” accept and comply with the Code of Good Practice for the Preparation, Adoption and Application of Standards in Annex 3 (“Code of Good Practice”). While it is doubtful that the Commission is a “central government standardizing body³⁷,” a teleological³⁸ interpretation of Art. 4 could support the view that the Commission would also be bound by the Code should it adopt a voluntary scheme.³⁹ It is thus recommendable

³⁶ Vranes, Erich, 2010.

³⁷ Central standardising bodies in the EU are the European Committee for Standardisation, the European Committee for Electrotechnical Standardization and the European Telecommunications Standards Institute.

³⁸ Teleological interpretation means interpreting a legal norm based on the objective it is to achieve.

³⁹ An explanatory note on Art. 1.6 TBT makes it clear, at least, that the EU may be considered a central government body. Only where regional bodies or conformity assessment systems within the EU are established, the TBT provision on regional bodies or conformity assessment systems would apply.

that the EU takes these rules into account when designing its labelling scheme. The major rules contained in the Code are the following:

- Art. D Code of Good Practice is identical to Art. 2.1 TBT, i.e. it contains the requirement that imported like products are treated no less favourably than domestic products, introducing a non-discrimination rule.
- Art. E Code of Good Practice repeats the first part of Art. 2.2 TBT, i.e. contains a requirement that standards do not create unnecessary obstacles to international trade, hence a proportionality rule.
- Art. F Code of Good Practice is similar to Art. 2.4 TBT, i.e. contains a requirement to use existing international standards as basis for technical standards, except where such international standards or relevant parts would be ineffective or inappropriate.

The rules in Art. 5 TBT on conformity assessments also apply to non-mandatory schemes.

Thus, the WTO rules for mandatory and voluntary labelling schemes are very similar in wording,⁴⁰ and it is thus most likely that the WTO dispute settlement bodies would interpret them in a similar way.

4.1.1.4 *SPECIFIC ISSUES*

In this section, we will discuss some specific issues that are likely to be of relevance for future EU legislation on environmental labelling.

► **Third-party Verification**

Third-party verification occurs when an independent, neutral entity assesses and certifies that a given product meets the requirements of given standards. There is a large number of Accredited Certification Bodies, which offer ISO certified third-party verification. These organisations are approved by a national authority to perform audits in line with a standard (e.g. ISO 14000) and to verify that an audited facility meets the requirements for the certification.

In light of the requirements discussed above, EU rules regulating third party verification or verification by member states must ensure⁴¹ that:

- it does not discriminate against importers de jure or de facto
- it is not more trade restrictive than necessary to fulfil a legitimate objective, and
- it is based on international standards, where applicable
- complies with the other requirements contained in Art. 5.2 TBT

According to Art. 8.2 TBT, the EU is only allowed to rely on verification by private actors if it ensures that these standards are met.

Regarding restrictions on trade, third-party verification must avoid overly burdensome procedures which risk being incompatible with WTO law if less restrictive and equally effective

⁴⁰ Koebele/La Fortune, in: Wolfrum et al. 2007, p. 248.

⁴¹ This follows from Art. 7, 8 TBT.

alternatives are available. Relevant (ISO) standards must be taken into account. Label schemes may only diverge from (ISO) standards if these are inadequate or ineffective (see above). This can only be determined when the details of a label scheme are known.

In addition, Art. 6 TBT contains rules on the mutual recognition of conformity assessments by central government bodies. According to Art. 6.1 TBT, the EU should, in principle, recognise conformity assessments carried out by entities in other WTO members. However, Art. 6.1 TBT states that they must be recognised only “wherever possible”, and the remaining paragraphs of Art. 6 TBT describe that recognition may require prior negotiations and agreements with other WTO members. While thus the mutual recognition obligation in Art. 6 TBT is not required unconditionally, it is advisable that the EU include in its legislation provisions on the conditions under which conformity assessment can be carried out outside the EU and by non-EU actors. They do not necessarily have to be recognised “on the spot”, but the EU should at least open avenues to other WTO members for negotiations on this matter.

► Primary and Secondary Data

Another issue to examine includes to what extent the verification should be based on primary data (data that is measured and gathered in-person and on-site) or on secondary information (data that has been derived from averages, statistical projections, and spot-checked primary sources). WTO law does not contain any specific rules on data collection.

The data collection method could become relevant in the context of Art. 2.2, 5 TBT and their proportionality requirement. As described above, Art. 2.2 TBT mandates that no alternative measures exist that are less trade restrictive and at the same time equally effective. For this reason, the EU should determine whether *equally effective* but less trade restrictive methods of data collection exist. Art. 5.2.3 TBT stipulates that information requirements must be limited to what is necessary to assess conformity. In addition, any method for data collection must not be formally or factually discriminatory. Anything that would make it more difficult for producers and importers from outside the EU to fulfil the requirements than for EU actors, is not consistent with WTO law. These are factual questions, depending on the details of each individual labelling scheme, which the EU should thoroughly scrutinise while developing future policies.

Finally, labelling schemes falling under specific ISO standards need to be based on the respective standards (see above).

► Design and location of eco-labels

The design of the labels as discussed in this report is unlikely to raise issues under WTO law.. It is irrelevant whether a label is designed in green or red, or whether it uses text or only graphics. The location of the information – either on the packaging, on the shelf, or via a “flash code” – could potentially become relevant in the context of the proportionality test in Art. 2.2 TBT.

The EU must assess whether a regulation requiring labelling on the package of a product is more trade restrictive than one requiring the provision of labels to be displayed in the shop where a product is sold, while at the same time being equally effective. From the perspective of an importer, it may be less burdensome to provide environmental information to the retailer than to print the information on the package of the products themselves. However, only if the display of the information in the shop is as effective at informing consumers of the environmental impact of

the product and is less trade restrictive, WTO proportionality rules require displaying environmental information in the shop. Again, this is a factual question that the EU should investigate once the policy choices are made.

Moreover, rules on the location of the information must not discriminate against non-EU producers and importers. It is difficult to see, though, how EU legislation not discriminating formally against non-EU actors in this regard would have a discriminatory effect.

Finally, to the extent that the ISO standards contain relevant rules, these should also be taken into account.

4.1.2 GATT

The other relevant agreement concerning environmental labelling rules is GATT, in particular its Art. III:4. This article is very similar to Art. 2.1 TBT as it prohibits the unequal treatment of “like” products. Therefore, the above discussion on “like products” is of relevance for Art. III:4 GATT as well.

One difference to the TBT is, however, that even if a measure violates Art. III:4 GATT, it may still be justified. The relevant norm is Art. XX GATT. It allows WTO members to take, inter alia, measures that are “necessary to protect human, animal or plant life or health” (Art. XX b) or “relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption” (Art. XX g). In addition, these measures must be non-discriminatory and must not constitute a disguised restriction on international trade. With regard to environmental consumer information, the question is hence whether there is a sufficient link between the information and the protection of exhaustible natural resources⁴² or whether the information is necessary for the protection of human, animal or plant life or health (e.g. because biodiversity-related information is provided).

In addition, the labelling rules must not privilege certain producers over others. To what extent these conditions are fulfilled will have to be discussed for each proposed option of environmental consumer information individually.

4.2 Recommendations to avoid WTO inconsistency of environmental labels

In light of the above, there are certain factors that will influence the WTO compatibility of an EU environmental labelling scheme:

- EU legislation on environmental labelling must not be discriminatory, i.e., it should not make any *de jure* or *de facto* difference between imported and domestic products.

⁴² For example, clean air was recognised as an exhaustible natural resource by the WTO dispute settlement in the case United States — Standards for Reformulated and Conventional Gasoline, (WT/DS2/AB/R), available at http://www.wto.org/english/tratop_e/envir_e/gas1_e.htm

- The EU's legislation should clearly refer to the environmental objectives of the measure and, optimally, define a certain level of protection sought. It should avoid any reference or statement implying that environmental information rules serve the protection of the internal market.
- The EU should have sound arguments for why the environmental labelling rules chosen are the least trade-restrictive measures conceivable for the objective it pursues. For this, the EU must be able to show that there are no alternative, less trade-restrictive measures available that are equally effective in reaching the desired aim (e.g. general information campaigns). Proportionality could become an issue when the EU chooses between a voluntary and mandatory labelling scheme, concerning the location of the information displayed and the data source used.
- The EU must take into account respective ISO standards on environmental labelling.

However, there are also some factors that are — in principle — unlikely to affect the WTO compatibility of a label. These include

- Its design;
- Which and what types of PPM-related environmental information are included in the label (e.g. CO₂ emissions and information on other air pollution or only information on one of them), as long as for each type of information, the above conditions (i.e., non-discrimination, proportionality) are met;
- Whether third party verification is used as long as it is non-discriminatory and proportional and verifiers outside the EU are also, in principle, accepted;
- Whether the label is voluntary or mandatory (depending on the details of the labelling scheme and the proportionality test); and
- Whether the Commission proposes a directive or a regulation; substance and procedural rules contained in the legislation are the key WTO issues.

Against this backdrop, other important considerations to keep in mind when analysing communication options include:

- Assessing how burdensome different possible options are for importers and whether they pose different hurdles for importers from different countries, and
- Assessing different options and their effectiveness in terms of reaching the EU regulatory objectives in order to ensure there is no alternative that is less trade restrictive.

References and further reading

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