



Wageningen Economic Research | Factsheet

# Knowledge rules for effective sustainability communication for labels and logos on food products

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The sustainability impact of food products is now mainly communicated through sustainability labels and logos at product level. Many consumers find these labels and logos hard to understand and do not always feel addressed. In their current form, labels and logos therefore have limited impact on behavioural choices. In this study, we examine which types of labels and sustainability communications have the most impact on sustainable choices.

The key question here is: What form of information and communication about food product sustainability at product level is most effective in encouraging the purchase of more sustainably produced food? We present the lessons learned from existing labels and logos, explore what sustainability information is appropriate to communicate to consumers, provide knowledge rules for an effective future communication

system, and explore how the impact of this communication system on sustainable behaviour can be strengthened for specific consumer groups. The key findings and recommendations are presented as the focus of this fact sheet. The background and method used to conduct this study are described below.

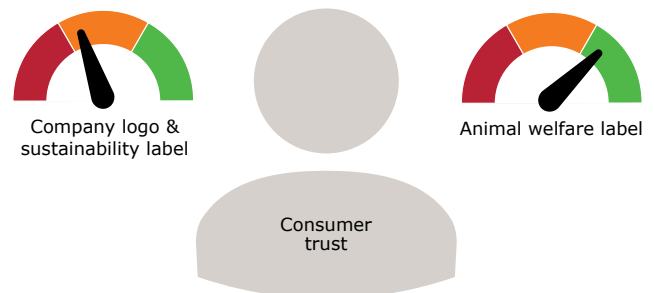
## Result 1: Knowledge rules from existing sustainability communications at product level

Consumers have a more positive attitude and are less suspicious of the existing independently certified animal welfare label, compared with the existing independently certified sustainability label and the privately certified company logo. They also have more knowledge and understanding of the animal welfare label and are more likely to buy products with this logo than the other two logos. This pattern, where a positive attitude coincides with more knowledge and less distrust, illustrates the halo effect: a strong positive image translates into other aspects of perception, such as understanding and distrust. Conversely, a negative image can have similar effects on the perception of a label.

Create a positive initial impression of a new sustainability label by providing a clear story that positively influences attitudes and associations. A strong story is understandable to all consumers and ensures trust in sustainability information.

Consumers trust independently certified labels and the company logo differently. The independently certified animal welfare label is considered more reliable than the independently certified sustainability label and the privately certified company logo. With respect to the company logo, consumers think it protects corporate

interests more than citizens' interests. With respect to the sustainability logo, consumers feel it protects the interests of government agencies and public bodies more than citizens' interests. These findings confirm that consumers trust sustainability labels differently depending on the sender. They illustrate that depending on the sender, consumers make trade-offs about which interests are most protected, even when it concerns an independently certified label.



Strengthen trust in sustainability labels with clear and transparent communication about their goals and values. Regardless of who communicates sustainability, it is more important to convey the message that the label puts the interests of citizens first. This will emphasise the content and not the sender, whether this is a government agency or a company.

## Result 2: Knowledge rules for future sustainability communication at product level

It is important that sustainability labels reflect consumers' perceptions. Respondents appear to be most concerned about issues that have a direct impact on the environment and animal welfare, such as deforestation, reducing food waste, the mistreatment of animals, and the depletion of natural resources. There is less concern for issues more distant from consumers such as energy consumption and carbon emissions and moral issues such as child labour and poor working conditions. Making a clear link between the impact of food production on nature and animal welfare makes the consequences of consumer choices tangible and understandable. Themes

further away from consumers such as carbon emissions feel less concrete and are therefore more difficult to link directly to visible impact on the environment.

When communicating sustainability, focus on direct, tangible effects of production and consumption on the environment and society that connect directly to issues that concern consumers like deforestation, reducing food waste and animal welfare.

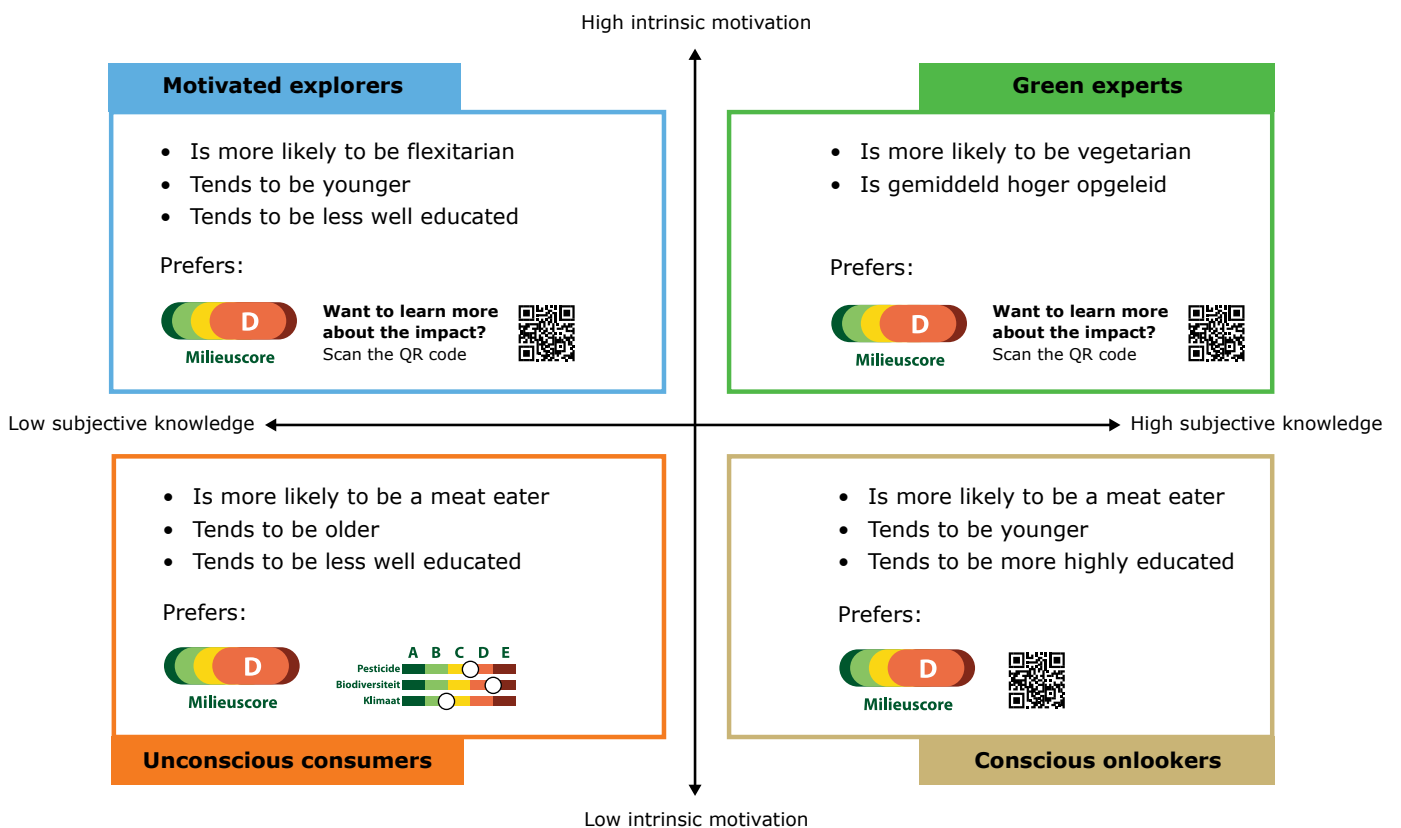


When the link is made between the sustainability themes that concern consumers and their influence on sustainable behavioural intentions, it is noticeable that concerns about animal welfare and environmental damage from the use of land and water - both concrete themes - contribute to motivation for sustainable choices. This emphasises that these themes are the most important aspects of sustainability, not only perceived consciously but also unconsciously. The importance of communicating the visible consequences of unsustainable practices provides a strong basis for formulating effective communication strategies around sustainability labels.

The findings provide knowledge rules for an effective future labelling system: combining a QR code or sustainability indicators with the 'milieuscore' will strengthen consumers' positive perception of a generic logo with spotlight system for sustainability communication at product level. These additions also help make the logo clearer, with the sustainability indicators making an important contribution.

Four consumer groups can be distinguished based on their level of motivation and information to use sustainability labels (see Figure 2): 'Motivated explorers', 'green experts' and 'conscious observers' prefer the QR code, while 'unconscious consumers' prefer the indicators. Environmental scores displayed in numbers or combined with a company logo led to less confidence in the logo. No additional effects were observed for the other additions. There were no differences between consumer groups in terms of their income, how they perceived their financial situation, the urban character or size of their place of residence, their family situation or their gender. On average, respondents have a positive attitude towards a generic logo with spotlight system for communicating sustainability at product level.

A generic logo for communicating sustainability at product level can generate a somewhat positive initial impression. Additional information such as QR codes and sustainability indicators can help reinforce that impression. In this regard, the possibility of in-depth information appears important.



**Figure 2** Consumers were divided into four groups based on their level of motivation to use sustainability labels and their self-assessment of how informed they are about sustainability labels, both individually and compared to others.





### Result 3: Encouraging sustainable behaviour in the online supermarket

Differences can be seen between consumer groups in the choices they made in the online supermarket. Across all product groups, 'green experts' choose products with the least environmental impact, followed by 'motivated explorers', 'unconscious consumers', and finally 'conscious observers'. These findings show the importance of motivation. In addition, using the 'milieuscore' to communicate sustainability information in the online supermarket was effective in supporting more sustainable choices.

There are indications that interventions, such as providing more detailed sustainability information on the label and generating trust by using a Dutch celebrity, within labels can boost impact if the sense of transparency and more information is emphasised. However, the additional interventions aimed at further encouraging the choice of more sustainable products with the 'milieuscore' have no reinforcing effect. Despite the fact that these interventions were specifically designed to encourage more sustainable product choices for the different consumer groups, they show no additional effect for the target group compared with other groups. The interventions used in this study were deliberately non-invasively designed to simulate a realistic choice scenario. Policymakers can consider alternative communication methods such as visual aids, videos, or interactive post-purchase activations that tie in with the sustainability themes to encourage motivation for sustainable choices.

A generic logo with a traffic light system for communicating sustainability information is effective in supporting more sustainable food product choices. This particularly applies to motivated consumers. Motivation thus seems more important than information.

### Conclusion: How sustainability information can encourage sustainable choices

The main question for this study is: 'What form of information and communication about food product sustainability at product level is most effective in encouraging the purchase of more sustainably produced food?' The 'milieuscore', designed for this research to communicate the sustainability at product level, is received predominantly positively by consumers and

appears to be an effective means of promoting sustainable choices. The importance of positive stories and associations promoting sustainability is emphasised, as is the need to intrinsic motivation. A generic traffic light system should tie in with concrete issues that matter to consumers, such as the impact of food on the environment and animal welfare. The 'motivated



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explorers' were most sensitive to sustainability, suggesting that activating motivation is an essential future pathway. Additional information devices such as QR codes can support this, but the effectiveness of

sustainability communication at product level lies in fostering positive feelings and motivation for sustainability, ultimately leading to more sustainable consumer choices.

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## Background and importance of sustainability communication

Sustainability in food production and consumption is at the heart of today's social debate, with a growing emphasis on the need for both consumers and producers to make more environmentally conscious choices. However, the effectiveness of current sustainability labels and logos in encouraging such choices remains limited, mainly because these systems are best suited to consumers who are already informed and motivated. This fact sheet provides insights into lessons learned from existing labels and uses behavioural science insights to optimise sustainability communication. The goal of optimising sustainability communication is to reach a wider audience and positively influence the sustainability choices of all consumer types, from less motivated and less informed to highly engaged and informed consumers.

Several attempts have been made to introduce new forms of sustainability communication at product level, in addition to existing health communication. These previous initiatives range from broad environmental ratings to specific labels that focus on certain sustainability aspects, such as reducing carbon emissions or promoting animal welfare. This usually takes the form of a label, logo or certification mark, all three of which are highlighted as sustainability communications in this fact sheet. Nowadays, multiple means of sustainability communication can coexist on one product packaging. Over the years, it has become clear that while these efforts are valuable, the multitude of labels and the

variability in their meaning and impact can cause confusion among consumers. This evolution in sustainability communication illustrates the need for transparent, reliable and understandable consumer information.

The debate on product category-specific sustainability logos versus a broader approach plays an important role in the effectiveness of sustainability communication. This discussion is about whether sustainability logos should focus on comparing sustainability within specific product groups, or whether they should paint a more general picture of a product's sustainability. This trade-off has important implications for consumer understanding and acceptance. A specific approach helps consumers make more informed choices within a particular category, while a more general approach can contribute to wider awareness of sustainability considerations.

In line with the aim of improving sustainability communication, this fact sheet discusses an integrated traffic light system inspired by both the intuitive colour-coded Nutri-Score and the environmental impact-focused Eco-Score, as adopted by Belgian retailer Colruyt. This system aims to present sustainability information in research in a comparable and exploratory way, in order to reach a wider audience and encourage positive sustainability choices, including less motivated and informed consumers.

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## Research design

This exploratory research was based on a representative sample of 1,029 Dutch respondents. All respondents completed two questionnaires and then chose seven products from a shopping list in a fictitious online supermarket.

### **Questionnaire existing sustainability information**

The first questionnaire distinguished between three ways of communicating about sustainability at product level. The sustainability labels tested were: an independently certified sustainability label, an independently certified animal welfare label and a privately certified company logo to communicate sustainability (see Figure 2). All





sustainability labels were displayed on the packaging of a piece of young mature cheese. Respondents answered questions about their attitudes, knowledge, understanding and distrust of these labels. Respondents were also asked how often they buy products with these labels.

### Questionnaire sustainability information additions

The second questionnaire was used to identify appropriate sustainability themes to communicate to consumers, and we identified knowledge rules for an effective future labelling system. Respondents were asked about their concerns on food sustainability issues. It is known from the literature that concerns about food sustainability can drive consumers to choose sustainable products and use sustainability labels. Understanding consumer concerns on sustainability topics can therefore be used to develop sustainability labels that effectively communicate on topics that reflect consumers' motives.

With additions to a fictitious and generic traffic light system, knowledge rules for future labelling systems were identified (see table 1). A traffic light system to communicate food sustainability information to consumers is seen by the market and science as a potential outcome and more effective alternative to current landscape of labels. Various additions were tested and compared to the standard traffic light system for this study: the 'milieuscore' (environmental score; from A: low to E: high). We tested a version of the traffic light system displayed as a number, adding a government or company logo, adding additional indicators of sustainability or a QR code linking to more information, an indication of the 'real costs', and an indication of the

'real costs' with a visual representation. Respondents answered questions regarding their attitudes, understanding and distrust of the 'milieuscore' and 'milieuscore' with additions.

**Table 1** The additions to sustainability labels presented to respondents in the study

Additions to labels									
'Milieuscore'	Milieuscore								
'Milieuscore' with number	Milieuscore								
'Milieuscore' with government logo	Milieuscore								
'Milieuscore' with company logo	Milieuscore								
'Milieuscore' with sustainability indicators	Milieuscore								
'Milieuscore' with QR code	Milieuscore Want to learn more about the impact? Scan the QR code!								
'Milieuscore' with 'real costs' indication	Milieuscore <table border="1"> <tr><td>Winkelprijs</td><td>€2,50</td></tr> <tr><td>Milieukosten</td><td>€1,43</td></tr> <tr><td>Sociale kosten</td><td>€0,20</td></tr> <tr><td><b>Echte prijs</b></td><td><b>€4,13</b></td></tr> </table>	Winkelprijs	€2,50	Milieukosten	€1,43	Sociale kosten	€0,20	<b>Echte prijs</b>	<b>€4,13</b>
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'Milieuscore' with 'real costs' and visualisation	Milieuscore <table border="1"> <tr><td>Winkelprijs</td><td>€2,50</td></tr> <tr><td>Milieukosten</td><td>€1,43</td></tr> <tr><td>Sociale kosten</td><td>€0,20</td></tr> <tr><td><b>Echte prijs</b></td><td><b>€4,13</b></td></tr> </table>	Winkelprijs	€2,50	Milieukosten	€1,43	Sociale kosten	€0,20	<b>Echte prijs</b>	<b>€4,13</b>
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### Behavioural experiment in the online supermarket

The behavioural experiment was conducted to investigate how consumers can be activated to choose products with lower environmental impact. Four consumer groups were distinguished based on the level of awareness about sustainability labels and motivation to use sustainability labels (see Figure 3). Four specific interventions were developed based on scientific literature and tested for the four consumer groups, in combination with the label in the online supermarket. These interventions included: highlighting a social norm to present products with a lower

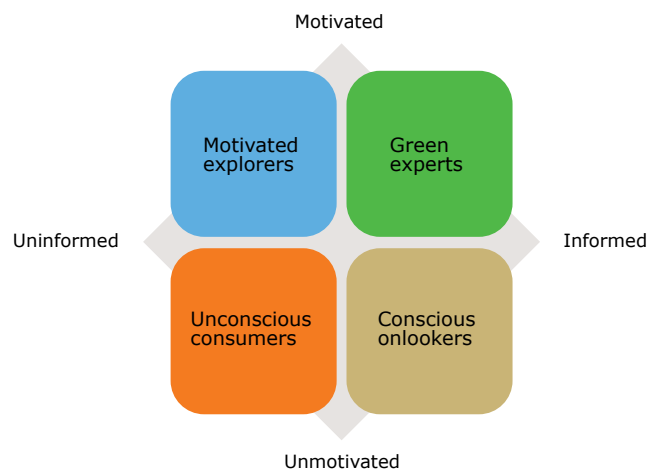


**Figure 3** The existing sustainability labels presented to respondents in the study



environmental impact as standard, providing more detailed sustainability information on the label, deploying a recommendation for products with a lower (more sustainable) 'milieuscore' by a Dutch celebrity to build trust, and activating underlying sustainability values to emphasise the importance of sustainability in the purchasing context.

To examine the effect of the 'milieuscore' and added interventions, respondents were randomly assigned to an online supermarket with no 'milieuscore', with 'milieuscore', or 'milieuscore' with one of the four interventions. Respondents were motivated to make choices that reflected their real preferences by linking the chance of an additional reward to their choices in the online supermarket.



**Figure 4** The four consumer groups based on their level of motivation to use sustainability labels and their self-assessment of how informed they are about sustainability labels, both individually and compared to others.

**Photos** Shutterstock (p.1), Thinglass / Shutterstock.com (p.4)

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