

**Position Paper on the Labelling of Products
to indicate their CO₂ impact
("carbon footprint" of products)**

1) *Background*

One measure under consideration in discussions on how to contribute to climate protection and the reduction of harmful greenhouse gases is the labelling of products to indicate their respective CO₂ impact (i.e. the so-called "carbon footprint" of products).

This measure is intended to provide consumers with information about the respective amount of CO₂ emitted and used in the overall production and marketing chain of a given product. A number of companies in the UK have already announced proposals to put CO₂ labelling on a large number of products. So far, however, such labelling has only been applied very selectively to a limited range of products.

2) *Evaluation*

The HDE believes in the importance of an ambitious and effective climate policy and therefore welcomes, in principle, the efforts of the European Union and the German Federal Government to set and meet targets in terms of energy efficiency and the reduction of greenhouse gas emissions.

In the context of the varied measures taken by the German retail trade to contribute to climate protection, the HDE is also considering the CO₂ labelling of products. However, for the reasons set out below, the HDE's assessment of the aims and feasibility of this option is, on the whole, rather critical.

Indicating the CO₂ footprint of products has only very limited reliable significance as far as individual products are concerned and, moreover, involves a range of concrete problems in terms of implementing such a labelling scheme. It is important to bear in mind – in this connection – that consumer information can only be meaningful if it is reliable and correct, i.e. such information should not lead to confusion or give rise to misconceptions.

In view of the above, the HDE should like to raise the following problems and issues:

➤ **Scope and limits of the CO₂ impact to be considered:**

In order to draw up an adequate and meaningful impact assessment for an individual product – which is a basic prerequisite of CO₂ labelling – the product's entire life cycle would have to be taken into account. This would involve carrying out a comprehensive analysis, ranging from the production of the raw materials to the time and effort required for the production, transport and storage of the product.

Taking, as an example, a frozen pizza with a topping of tuna fish and peppers, this would involve, to begin with, a very complex survey of the cultivation of the peppers and the fishing of the tuna, as well as of their processing and transport to the pizza factory. To this we must add the work involved in making the pizza, transporting it to the retail outlet and storing it there.

But the product's life cycle does not end here; it also includes the foreseeable impact of the disposal of the packaging and/or, if necessary, of the product itself. In some cases, it is difficult to typify certain stages in the life cycle of a product. It will of course make a difference, for example, if the pizza is marketed regionally or nationally or is distributed internationally. And how can the retailer and/or the producer possibly estimate the consumer's own CO₂ footprint resulting from transportation, storage and preparation of the product? Moreover, we must consider the fact that e.g. the pizza is made up of a large number of other ingredients which have already been processed in part.

Similar considerations apply to many other products, also beyond the food industry. Especially in the case of complex products – such as computers, washing machines, televisions, toys and cosmetics – it would be far from easy to draw up a meaningful impact assessment.

In addition to taking into account all the ingredients of a product in terms of their potentially harmful effect on the environment, any changes in the design of the product and the processes involved in its distribution would also have to be considered in order to be able to draw up a comprehensive "balance sheet" and/or provide correct information. In practice, this means that the result of the impact assessment could be significantly affected not only by such factors as the optimisation of the formulation of foodstuffs or the composition or construction of a product, but also by changes in the size of the packaging or the design of the product, the introduction of new logistic processes, etc.

Furthermore, focusing on the product's CO₂ impact alone would lead to a one-sided and not very meaningful assessment of the product's overall environmental impact.

➤ **Can the assessment and the labelling be implemented reliably in practice?**

Although attempts have been made to develop a unified methodology to calculate the relevant energy consumption processes involved in different stages of a product's life cycle (from production to disposal), many diverse and often highly complex factors must be taken into account, and these vary depending on the product. For this reason, only a very superficial and overly-general form of standardisation is conceivable, if at all. It can therefore be said that the more approximate the methodological basis, the greater will be the risk of misleading the consumer.

➤ **Lack of comparability with simplified labelling**

In view of the high costs and time-consuming efforts required for a comprehensive life cycle analysis, simpler alternative labelling models – such as the model which only takes into account the relevant means of transport – are currently being considered. But this approach gives rise to other problems.

Thus, for instance, a simplified label indicating e.g. that a product was transported by air, does not give the consumer any concrete information about the emissions generated by the product in comparison with products transported by other means.

To clarify this point we may refer to a well-known example: Although it is generally accepted that transport by road generates less CO₂ than transport by air, contrary to this assumption, flowers from South Africa may have a better CO₂ balance sheet in practice than Dutch greenhouse flowers (in spite of the CO₂-intensive transport by air).

It is therefore apparent that while "simple" solutions do not lead to any meaningful consumer information, complex systems – insofar as they can be implemented at all – involve high costs and a very considerable expenditure of time and effort.

➤ **Poor cost-effectiveness**

In view of the above, the HDE is convinced that the costs of a comprehensive, correct, meaningful and clear labelling of CO₂ emissions on a product (based on the product's complete life cycle) are out of all proportion to the expected benefits.

Although, in principle, identifying the energy expenditure of a product and making use of any energy saving potential along the product cycle (including transport and recycling) should be considered the right approach, and granted that everyone responsible for a product should identify and implement possible and meaningful ways of saving energy at the relevant stage in the product cycle, it is apparent that effective measures for climate protection should be applied first of all at the point where the greatest energy saving can be made as cost-effectively as possible.

Given the large number of products distributed in the retail sector (a supermarket, for instance, often keeps more than 15,000 articles), an enormous expenditure of time and effort would be required for a comprehensive analysis of the full product range. As mentioned above, relatively small changes in a product's distribution process or design could significantly distort its laboriously calculated impact assessment. A dynamic, constantly updated calculation of all energy or climate relevant processes would involve an investment of time and effort whose results could neither be adequately displayed nor meaningfully conveyed to the consumer.

In view of this, a blanket implementation of comprehensive CO₂ labelling seems to be unreasonable, cost-ineffective and impracticable.

➤ **Lack of a reference for comparison by consumers**

Another question should be addressed openly in this context: How would consumers benefit from the requirement to calculate and declare the CO₂ impact of products? If CO₂ labelling is to contribute to climate-conscious shopping behaviour, consumers must first have access to a comprehensible and clear reference for comparison.

Only consumers who are informed about their personal CO₂ needs can assign the relevant proportion of the CO₂ of a product to themselves and, on this basis, make informed decisions about their consumption – provided they are willing and able to interpret the label correctly. But, in considering the feasibility of achieving this goal, we should bear in mind the above-mentioned difficulties involved in obtaining reliable information on a specific product's CO₂ impact.

➤ **Taking individual consumers' behaviour into account**

As suggested above, consumer behaviour (not least in relation to individual transport, product storage at home, the use and preparation of the products, etc.) is also partly responsible for the burden placed on the environment. This means that, "to get the full picture", in addition to the stated amount of CO₂, consumers would also have to consider their own CO₂ impact associated with the use of the product.

Especially in the case of certain products – such as deep-frozen food – this leads to the question of whether a (complex and time-consuming) CO₂ labelling system would be economically meaningful, given that the energy requirements of households for the storage and/or preparation of foodstuffs are at least as environmentally relevant as the energy and/or CO₂ requirements at the level of production. Of course, this also applies to the energy use of e.g. electric appliances, where, additionally, one has to take into account the fact that the CO₂ impact depends on the relevant energy source.

3) *Alternative climate protection instruments and contributions from the retail sector*

In discussions on CO₂ labelling, we should also take into account the so-called Eco-design Directive, currently being developed at European level. This Directive aims to improve the energy efficiency and environmental compatibility of energy powered product groups on the basis of life-cycle studies. Furthermore, detailed energy consumption labelling already exists for many electrical appliances. Such labelling, which includes important information about the energy requirements of each product, will also be revised and extended at European level in the near future.

As far as the food retail sector is concerned, it should also be taken into account that many products already carry information about their origin (e.g. in connection with seasonal availability) for the interested consumer, and this provides a basis for an informed decision, on his or her part, to buy or not to buy the product. In this connection, we should bear in mind that consumers generally wish to have a large choice of articles throughout the year. Reflecting this fact, the retail sector is meeting the increasing demand for organic products by offering an ever wider range of organic foodstuffs.

However, this critical evaluation of the CO₂ footprint at product level should not be understood to imply that the HDE questions the need to save energy along the production and supply chains. Effective measures are already being taken at individual level in the production process and during processing as well as in the areas of storage and transport, among other reasons because such measures help to reduce costs in times of rising energy prices.

The German retail sector is actively involved in many initiatives to reduce the energy consumption of individual establishments and logistic processes, without however limiting the diversity of the goods on offer or the services provided to the customer. Furthermore, retail companies have been informing consumers – for a long time and in many different ways – on energy consumption and energy saving issues (for example, through the customer service department in shops, information materials, the Internet, telephone hotlines, etc.).

Aside from complying with ambitious environmental standards in the areas of waste disposal and recycling, building management and product responsibility, German commerce enterprises have taken numerous voluntary measures to increase energy efficiency and sustainability. Major investments have been made, e.g. in the use of renewable energies, energy-efficient technologies for refrigeration and less climate-damaging refrigerants.

By researching and using their (individually differing) potentials for energy efficiency, an increasing number of commerce enterprises are making a responsible contribution to climate protection and the reduction of CO₂ emissions.

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