

# KlimaPro – Standardisierungstool to Achieve Climate Neutral Products



Materials Science & Technology

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## Introduction

The export of agricultural products, especially food, is still an important source of income for developing and transition countries. Apart from traditional export products such as coffee and bananas (Picture 1), new attractive revenues are achieved through trade with fresh products like tropical fruits, vegetables, fish or cut flowers. At the same time, the number of companies aware of the long-term benefits through active investment in climate neutral products and processes is increasing.



Picture 1: Coffee and bananas are two of the most famous export products in developing countries (source: Wikipedia)

Institutions and enterprises that are willing to get involved with climate protection should be able to rely on internationally accepted standards and tools. Otherwise, their effort is vulnerable to the risk of being denounced as “green-washers” or “eco-dumpers” with substantial counterproductive effects to their reputation.



Picture 2: Gold Standard (WWF) or VCS Standard (Climate Group)

At present, some quality standards like “Gold Standard” developed by NGOs such as WWF or the “Voluntary Carbon Standard” (VCS) by the Climate Group are available for climate protection projects in the South (see Picture 2 as examples).

However, a widely supported standard for climate neutral products is still missing. Existing initiatives (climate neutral air traffic or climate neutral notebooks) use different criteria or concepts with different effects to climate protection.

## Objectives & Methods

**Project goals:**

- develop and establish widely applicable and accepted criteria and practices to create climate neutral products;
- collaboration with relevant stakeholders like companies, wholesalers, climate protection activists, NGOs and governmental organisations;
- strong focus on scientific LCA-knowledge.

Three **basic principles** shall lead to a scientific sound standard for climate *neutral* products:

- full value-chain perspective of products;
- increase of eco-efficiency and substitution with renewable energy; and
- compensation and/or neutralisation with independent quality control.

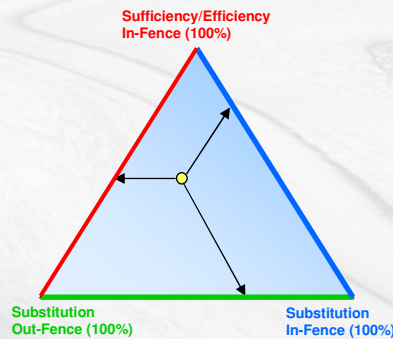


Figure 1: 3-Principle Approach with both in-fence and out-fence measures (source and ©: www.compensate.ch)

Technical part of the project: The **tool** will have to take several aspects into account:

- it has to be compatible with the ISO norms 14025 (on environmental labels and declarations) and 14040 (on environmental management and LCA);
- the establishment of a rule set to define the product as well as the neutralisation process (Figure 2);
- the web-based tool should allow calculating the greenhouse gas potential of products and processes.

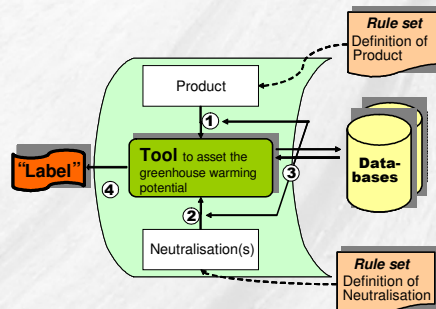


Figure 2: Rule sets to define products and neutralisation measures; Tool to assess GWP and to establish Label

Companies fulfilling the criteria shall be awarded by a label similar to a fair-trade label such as Max Havelaar.

## Case Study

In order to decide in what depth a full product chain has to be analysed, a well-studied prototype is assessed. GEBANA soy oil was recently investigated by Carbotech. The data on the raw materials, the production and different transport stages was analysed for this project with the LCA software UMBERTO (Figure 3).



Picture 3: Study object: Soja oil by GEBANA (source: Wikipedia)

The underlying datasets for the unit processes were retrieved from the ecoinvent database. This allowed a relatively accurate assessment of the product. For other products like e.g. in the electronics field, it is much more difficult to get data from all the different suppliers and stakeholders involved. Therefore, the question on how detailed a product life-cycle can be described is crucial.

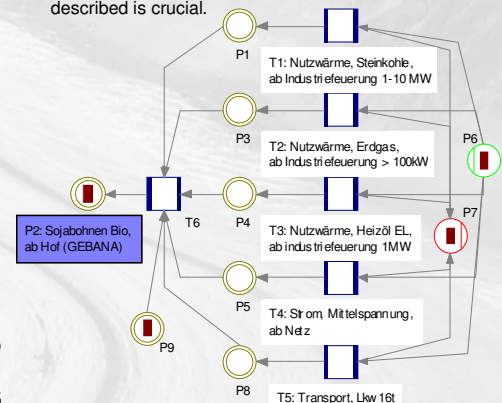


Figure 3: GEBANA Soy oil production modelled in UMBERTO

## Outlook

Immediate **next steps** of the study are as follows:

- Choose a list of possible products with the input of major Swiss stakeholders (stakeholder platform);
- Define the set of rules both from the product and from the neutralisation point of view;
- Develop an online tool to assess products and single product lines for their impact on global warming;
- Establish a label that is widely acceptable, uncomplicated but still scientifically sound.

The major **benefits** of a climate neutral product label would be:

- Marketing effect as a plus for companies;
- People in the 1st and 2nd world could eat food, wear clothes and consume goods from developing countries with a much better conscience;
- Working conditions around climate neutral products would improve.

## References:

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