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## **COMBINING TYPE I AND TYPE III ECO-LABELS: A SUCCESSFUL EXPERIENCE IN THE WINE SECTOR**

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### **ABSTRACT**

In the framework of the European project LIFE HAprowINE, the authors suggest that the award of Type I eco-labels should be based on certified environmental product declarations and which are based on quantitative environmental information obtained from specific products (through an LCA study). This approach is currently being tested within the wine sector with the cooperation of a number of wineries of the Spanish region of Castilla y León. To this end, a combination of Type I and Type III eco-labels types is suggested, including the definition of thresholds for awarding the best products with a life cycle perspective.

### **INTRODUCTION**

Eco-labels are used by manufacturers and distributors to provide information about the environmental performance of their goods on a voluntary basis. When accurate and relevant, this information should help consumers to identify those products and services of the market with lower environmental impacts. In order to avoid impact shifts between different categories or life cycle stages, a life cycle approach should be applied when defining the rules for awarding eco-labels. Currently, only Type III eco-labels (or Environmental Product Declarations, EPDs) require that a LCA study of the product is undertaken following specific pre-defined calculation rules (named Product Category Rules, PCR). However, the technical and detailed contents of EPDs make them better suited for professional purchasers rather than final consumers, which may have the time and competence to understand their contents. On the other hand, Type I eco-labels are easier to understand, however the extent in which LCA methodology is followed in the definition of awarding criteria varies from one Type I scheme to another.

Within this context, the European project LIFE HAprowINE (LIFE08/ENV/E/000143) suggests that wine producers first develop an EPD of their products and then, by comparison to average market reference values of the different environmental impact categories (without aggregation), companies award an Eco-label Type I for their wines if they satisfy the threshold values. Such scheme, which may be applied to other product sectors, implies that the Eco-label Type I criteria should be based on LCA results of individual products. To this end, average environmental impacts of product categories should be known in advance.

Therefore, LCA studies developed for a number of wines of the Spanish region of Castilla y León have been used in combination with scientific literature in order to define the thresholds values for the Type I eco-label.

## **METHODS**

### *Product Category Rules for development of Environmental Product Declarations of wine*

Type III environmental declarations, also known as “environmental product declarations” (EPDs), present relevant and quantitative environmental information about the life cycle of products. The information declared is based on an independently verified Life Cycle Assessment (LCA) study undertaken according to specific rules (i.e. Product Category Rules, PCR) developed in the framework of ISO 14040-44 and ISO 14025 standards.

Up to date, the only EPD programme which has published a PCR document for wine is the *International EPD® System*. However, no published EPDs produced applying this PCR are available. On the other hand, the project partners considered that some specific contents of this PCR, such as the functional unit or the impact categories to be declared, needed further discussion. For this reason, within the HAProWINE project a new PCR document for wine has been prepared.

As stated in ISO 14025, the previous PCR document has been taken into account, as well as previously published LCA studies on wine. However, it has been the development of a number of detailed LCA studies of the products of local wineries and the consultation with additional wineries and stakeholders of the region of Castilla y León that allowed gaining the required in-depth knowledge to develop a PCR document suitable for the wine produced in Spain.

### *Definition of the environmental thresholds for the Type I eco-label*

The Type I eco-label requires a benchmark against which each applicant wine can be measured. For each impact category, average values can be defined based on the results declared through EPDs. These values should be updated periodically in order to foster the continuous reduction of the environmental footprint of wine.

Within the HAProWINE project, pilot EPDs and LCA studies have been developed in collaboration with wineries of Castilla y León. In addition, and considering the results of the complete LCA studies, key inventory data have been collected for additional wineries. Finally, a comprehensive literature review of LCA studies of wine in different parts of the world has been undertaken. Based on this available information, benchmarks have been identified for wine for the following impact categories and indicators: global warming, water use, (fossil) primary energy consumption and eutrophication.

## **RESULTS**

EPDs of Spanish wines will be produced as pilot case studies within the HAProWINE project. In addition, a PCR document will be available for its application in further cases. In this sense, conversations with EPD program holders are in progress in order to facilitate the use of this outcome of the project in already existing EPD systems in Spain and abroad. Finally,



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environmental benchmarks on the production of wine for the Castilla y León region and/or the global market will be available.

## **DISCUSSION**

The development of the Product Category Rules and the definition of the environmental thresholds have been subject to external review by wineries and other stakeholders belonging to the advisory group of the HAProWINE project. A number of seminars were held with them to discuss key assumptions and methodological decisions, so as to achieve the widest possible agreement and contribute to the advancement of the state of the art in the LCA of wine.

Both the developed Product Category Rules and environmental thresholds for awarding the Type I eco-label have been tested for a reduced number of wines of the region of Castilla y León. It is considered that PCR could be applied to wines produced in other regions of the world, whereas environmental thresholds would need further revisions.

## **CONCLUSIONS**

Once the HAProWINE project will be closed (December 2013), a tested scheme for combining Type III declarations with Type I eco-labels will be available for wines, including Product Category Rules and environmental benchmarks for distinguishing those wines with better environmental performance in comparison to average products. With minor adaptations, the outcomes of the project could be transferred to other wine producing regions of Spain and abroad.

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