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Labeling scenarios for products made with CO₂

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Due to the approaching market introduction of CO₂-based products, the question arises whether and how the specific properties of such products can be communicated to possible consumers [1]. CCU products might be more expensive than their conventional equivalents, or the producer might find it advantageous to promote CCU products as environmentally beneficial. Either way, while a product labelling by a single producer does not seem advisable, the application of labels which are independent of specific manufacturers could be a more suitable method to impart the utilization of CO₂ in a production process. Thus, a multitude of labels, certifications and designations that already exist today as well as different ISO norms could be applicable for different groups of CCU products.

Message	Type of label	Certified eco label type I (ISO 14024)	Certified eco label "type I like"	Self declaration type II (ISO 14021)	Environmental declaration type III (ISO 14025)
Footprint	Intermediate product (B2B communication)	Not possible, type I certificates always represent more than one property	Possible, not very useful since B2B customers are not the target group	Possible, to recommend as a declaration option for a strategic alliance of users	Possible and recommended as part of an environmental declaration
	End product (B2C communication)	Not possible, type I certificates always represent more than one property	Possible and recommended	Possible, to recommend as a declaration option for a strategic alliance of users	Possible, not very useful since final customers are not the target group
Database	Intermediate product (B2B communication)	Not possible, type I certificates always represent more than one property	Possible, not very useful since B2B customers are not the target group	Possible, to recommend as a declaration option for a strategic alliance of users	Possible and recommended as part of an environmental declaration
	End product (B2C communication)	Not possible, type I certificates always represent more than one property	Possible and recommended	Possible, to recommend as a declaration option for a strategic alliance of users	Possible, not very useful since final customers are not the target group
Recycling	Intermediate product (B2B communication)	Not possible, type I certificates always represent more than one property	Not possible, message displays product properties, not ecological effects	Possible, to recommend as a declaration option for a strategic alliance of users	Not possible, no information about ecological effects of the product
	End product (B2C communication)	Not possible, type I certificates always represent more than one property	Not possible, message displays product properties, not ecological effects	Possible, to recommend as a declaration option for a strategic alliance of users	Not possible, no information about ecological effects of the product
CO ₂	Intermediate product (B2B communication)	Not possible, type I certificates always represent more than one property	Not possible, message displays product properties, not ecological effects	Possible, to recommend as a declaration option for a strategic alliance of users	Not possible, no information about ecological effects of the product
	End product (B2C communication)	Not possible, type I certificates always represent more than one property	Not possible, message displays product properties, not ecological effects	Possible, to recommend as a declaration option for a strategic alliance of users	Not possible, no information about ecological effects of the product

Figure 2: Possible options to use existing environmental labels to communicate customer-oriented CCU aspects [3]



Figure 1: Different types of labels that might be eligible for CCU products [2]

Therefore, it is reasonable to examine which possibilities might be eligible for the environmental **labeling** of CO₂-based products, and more generally, to then find relationships between these and the possible **properties and messages of products** resulting from implementation of CCU processes.

As figure 2 shows, a number of options for environmental labeling should be considered for CCU products (applicable: green characters). Even if there is currently still a great deal of uncertainty in the perspectives regarding labelling and several obstacles need to be overcome in the further design and achievement of a certification for CCU products, it is still recommendable for parties in industry and associations to consider and perhaps prepare designation and certification options already now in cooperation with experts from the fields of environmental protection and certification.

References

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