

MIGROS

Using life cycle assessment for packaging decisions in Migros

54th LCA Discussion Forum

A large, 3D orange 'MIGROS' sign is mounted on a dark blue building facade. The sign is made of thick, block letters and is illuminated from below, casting a warm glow. The building's facade consists of horizontal slats. The background is a clear blue sky.

MGB, Logistik-TA, Ecology, 12/5/2013
Hanna Kraye

Sustainability in Migros – Generation M

Unser Versprechen an Solei:

Bis Ende 2013 nehmen wir alle Plastik-Flaschen an und rezyklieren sie.

Mehr Versprechen auf generation-m.ch

GENERATION **M**

MIGROS
Ein **M** besser.

LCA in packaging development and optimization

- LCA is used in the packaging development process already
- Packaging developers and LCA experts in Migros work closely together
- Screening LCA on different packaging scenarios is undertaken
- Identification of best packaging solutions (packaging type, material, etc.)



LCA as basis for environmental guidelines on packaging

- Ecological packaging need to consider product specifications
- LCA results of most ecological
 - ...packaging material
 - ...packaging type

		Which material is to be used?															
		Paper	Card-board	Alu	Tin-plate	Glass	Plastics ²						K3 ¹	Cardboard composite	Corrugated cardboard		
							PP	PE	PET	rPET 50%	PS	PVC	NR ²				
Env. pollution points (UBP/g)		2.6	2.9 ³	11.5	4.4	1	3.1	3.5	4.4 ⁴		4.5	14.2	3.7	2.6	2.2	2.1	
Which type of packaging is involved?	Cup	●	●			●	●	●	●	●	●	●	●	●			
	Pouch	●					●	●	●	●	●	●	●	●			
	Blister pack						●	●	●	●	●	●	●	●			
	Etui		●				●	●	●	●	●	●	●	●			
	Flask / Small box (small <0.50)																
	Flask (large >11)																
	Box		●	●	●			●	●	●	●	●	●	●	●	●	●
	Bowl		●	●				●	●	●	●	●	●	●	●	●	●
	Pot ¹					●		●	●	●	●	●	●	●	●	●	●
	Trays		●					●	●	●	●	●	●	●	●	●	●
	Tube			●				●	●	●	●	●	●	●	●	●	●
	Wide-neck jar					●		●	●	●	●	●	●	●	●	●	●
	Bunch	●		●				●	●	●	●	●	●	●	●	●	●
	Capsules ⁴			●				●	●	●	●	●	●	●	●	●	●
	Lid / Closures			●	●			●	●	●	●	●	●	●	●	●	●
Etikette	●						●	●	●	●	●	●	●	●	●	●	

● optimal ● ok ● avoid ● prohibited

PMS
Process Management System

MIGROS

Directive

W7.4.40: Guiding principles for sustainable packaging Directive

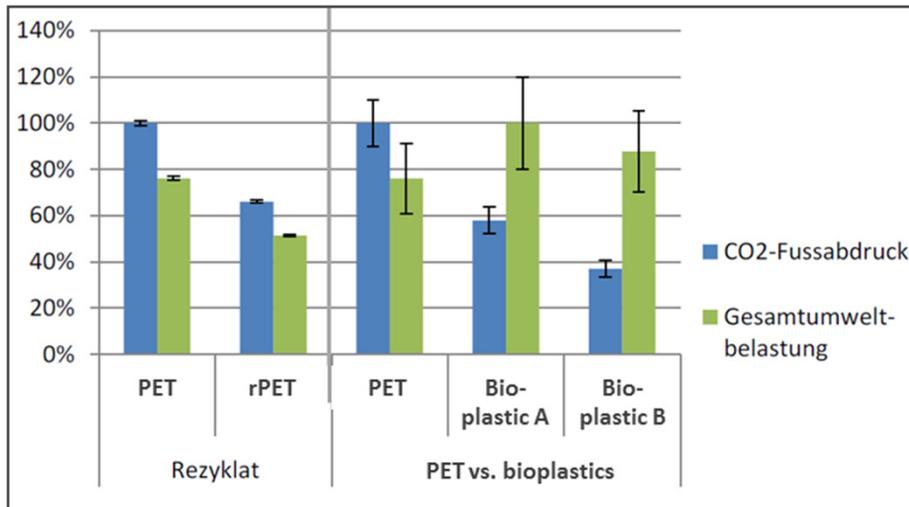
1. Aim/purpose 2
2. Scope 2
3. Principle 3
4. Definitions, abbreviations 3
5. Packaging guidelines 3
6. Other applicable documents 4

- Core function of packaging is to protect the product
- Information to most ecological material and packaging type

LCA as basis for environmental guidelines on packaging



- LCA on different bio plastics
- Application of ecological scarcity



PMS
Process Management System

MIGROS

Directive

W7.4.42: Guidelines for bioplastics

- Proof of LCA (not only GWP)
- No competition to food production
- No GMO (genetic. mod. organisms)

Generation M – promise on sustainable packaging

■ Goal / Motivation:

- Ecological optimization of packaging
- To reduce the environmental footprint of packaging by 10% until end of 2012 *

■ Methodological approach:

- The environmental footprint was measured applying the method of ecological scarcity

■ Lessons learned:

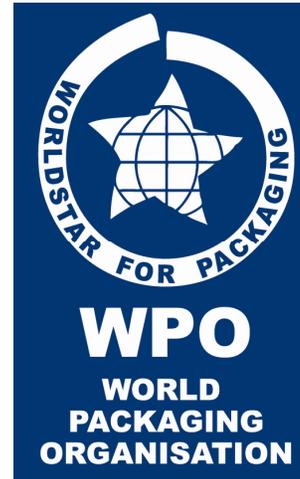
- Good methodological approach to show ecological optimizations
- Controlling created a large work load
- Method of ecological scarcity was not well understood by the broad public

* of the best-selling products by 10% till end of 2012.



Conclusion

- Methodological challenges
 - availability of good and reliable generic process data
 - environmental credits for collected and recycled packaging material
 - positive effect of labeled products and packaging material (f.e. FSC and Bio)
- The method of ecological scarcity is
 - ...rather understood by experts, not by the broad public
 - ...not suitable for marketing because of its complexity
- Advantages: The method is applied for Migros-internal decisions because it
 - ...is suitable to identify ecological optimization potential
 - ...considers different ecological impacts
 - ...is a single score method that is understandable
 - ...has a Swiss focus



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