



LCA DF 79

Joining forces to allow consumers to make more informed choices and the respective challenges:
Migros M-Check



What is the M-Check?

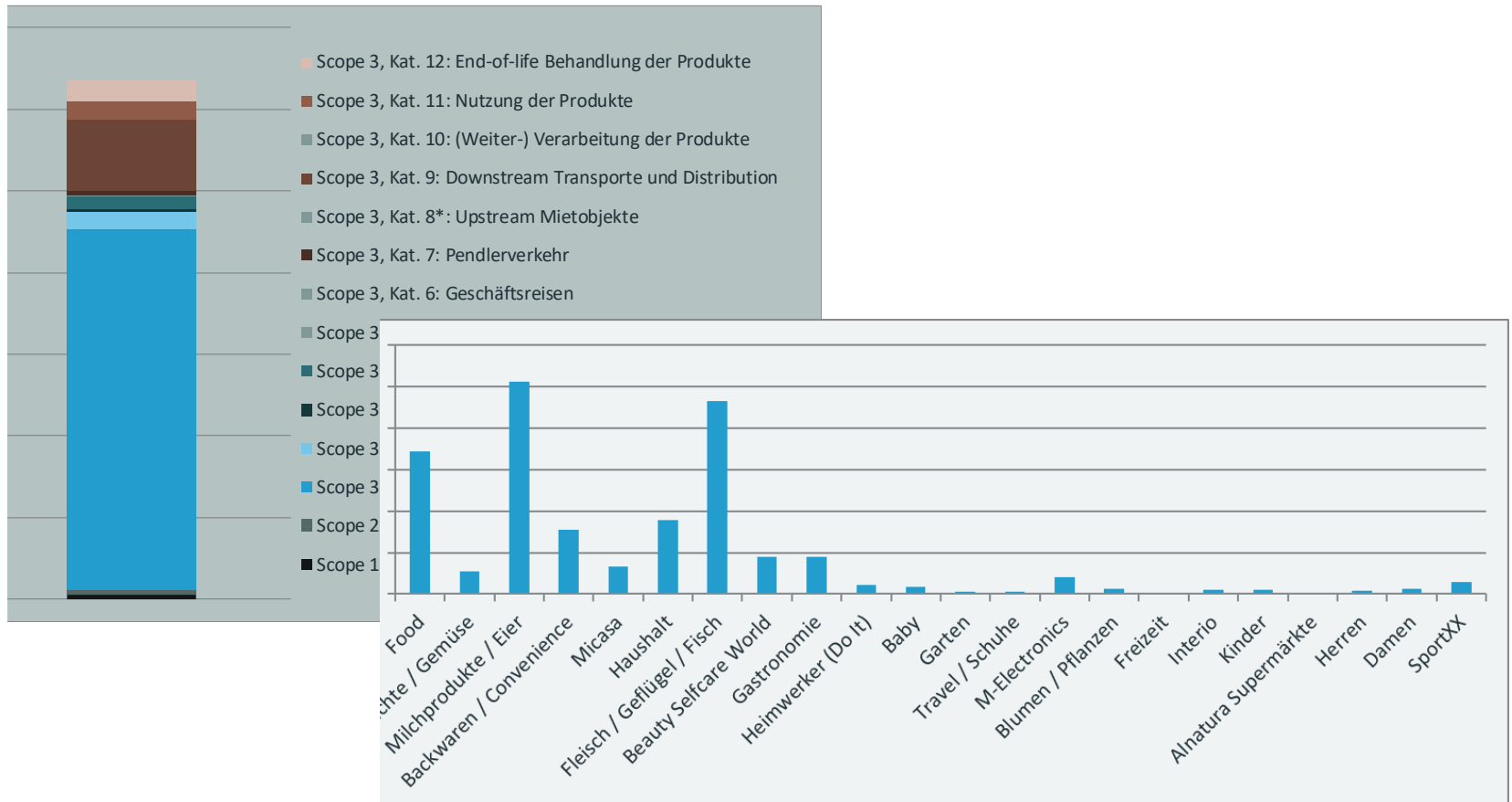
- Sustainability rating from Migros, introduced in spring 2021
- Migros:
 - Swiss retailer, mainly for food products
 - Turnover: 16.5 bn CHF
 - 10 regional cooperatives; over 600 stores (CH)
 - 100'000 products, around 80% own brands
- Two dimensions:
 - Climate
 - Animal welfare
- Still in development:
 - Improvement of existing dimensions
 - Integration of further dimensions

M-Check: 100% transparent





Data basis



Compilation of emission factors for product range

Product range	Data basis	Inventory	GHGem production
SWEETS	LCA-Daten	Dark chocolate, at plant/kg	14.956
ANIMAL FOODS	LCA-Daten	wet pet food, at plant/kg	1.024
APERRO	Umwelt-IOT	g15g, Bakery and farinaceous products, IOT 2008/CHF/CH U	0.258
BISCUITS	Umwelt-IOT	g15g, Bakery and farinaceous products, IOT 2008/CHF/CH U	0.258
BAKERY	LCA-Daten Det.	Most important products according to GPC-Bricks	0.755
SIDES/INGREDIENTS	LCA-Daten Det.	Most important products according to GPC-Bricks	1.014

Detailed emission factors per GPC-Brick

BEILAGEN/ZUTATEN	Anteil		1.01
Teigwaren / Nudeln – nicht verzehrbereit (ohne Kühlung haltbar)	24%	pasta, dried, durum wheat, without eggs, at plant/kg	1.15
Gemüse – bearbeitet / verarbeitet (ohne Kühlung haltbar)	12%	vegetables, conserved/kg	0.40
Speiseöle – pflanzlich (ohne Kühlung haltbar)	11%	Rapeseed oil, at oil mill/kg	1.61
Körner / Getreide – nicht verzehrbereit (ohne Kühlung haltbar)	11%	Wheat grains, at farm/kg	0.87
Saucen (ohne Kühlung haltbar)	8%	sauce bechamel, at plant/kg	2.16
Eingelegtes Gemüse / Sauerkonserven	7%	vegetables, conserved/kg	0.40
Essig	6%	apple juice, packed, at plant/kg	0.45
Gemüse- / Kartoffelbasierte Produkte /- Gerichte – nicht verzehrbereit (ohne Kühlung haltbar)	5%	Potato starch, at plant/kg	0.66
Kräuter / Gewürze (ohne Kühlung haltbar)	3%		

Assignment of emission factors

Production

1. EF of corresponding GPC-Brick
2. EF of demand area -> Increased level of detail where necessary
3. EF of demand world

Transports

According to country of origin (domestic / imported)

- Generic factor for transports within Switzerland
- Generic transport chains for imports
- Flight transports specifically taken into account

Packaging: Generic factor

Rating

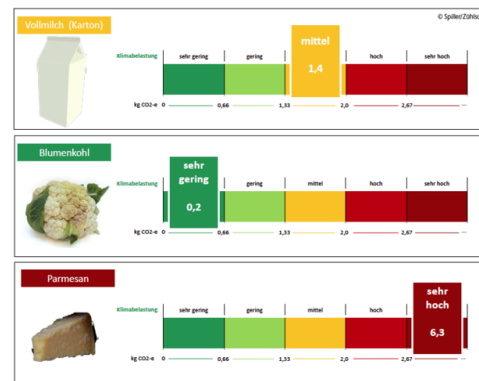
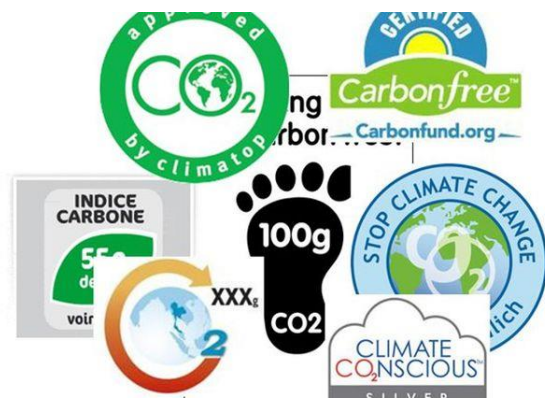
Category	GHGem [kg CO2-Äq./kg]	Product range	Communication
*****	0 – 0.9	5% of the products with the lowest emission factor	If you buy mainly products of this category, you can reduce your CO2 footprint very much.
****	1 – 1.9	5% of the products with the second lowest emission factor	If you buy mainly products of this category, you can reduce your CO2 footprint significantly.
***	2 – 4.7	15% of the products with the third lowest emission factor.	We are still in the best quarter of the range.
**	4.8 – 9.9	Products in the better half of the range in terms of emissions	
*	> 10	50% of products with the highest emission factor	If, then these products are to be consumed consciously and only in small quantities.



Challenges

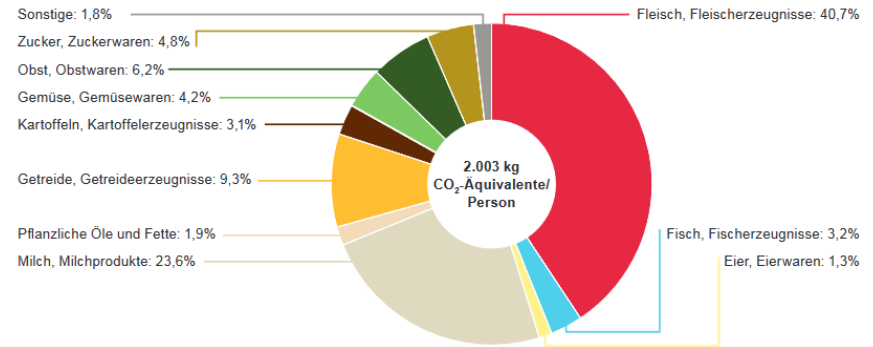
- Data management: Mistakes in product classification
- Appropriate level of detail
- Reference entity

There is enough data, the challenge is to make it available to the public in a comprehensible way!



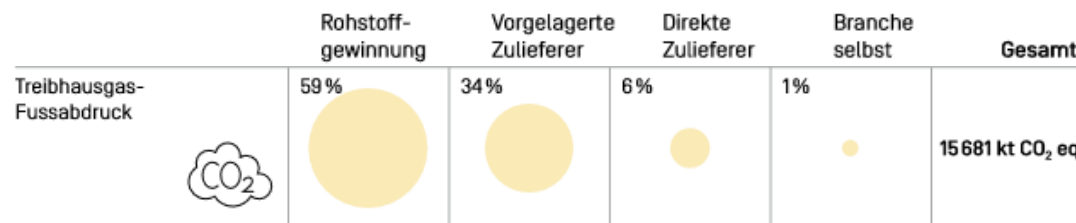
Impact

- Consumer awareness
- Internal awareness
- Compilation of emission factors was transmitted to CM:
 - Questions -> enhanced understanding of GHG-emissions
 - Demand for new, more detailed emission factors
- Printing of new packaging: Rating must be included
- New products: Rating must be provided



Source: Noleppa (2012): Klimawandel auf dem Teller. WWF Deutschland

Source: Alig et al. (2020): Umweltatlas Lieferketten Schweiz. Treeze Ltd. & Rütter Socecco AG



Outlook

- Continuing improvement of emission factors
 - Enhancing level of detail
 - Integration of specific emission factors for packaging
 - Expansion to near- and non food-products
- Integration of further dimensions of sustainability



Source: Noleppa (2012): Klimawandel auf dem Teller. WWF Deutschland / Willett et al. (2019): Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems

Thank you for your attention.

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