

Woraus bestand Ihre letzte Mahlzeit?

Wie umweltfreundlich und gesund war sie? Wieviel hat sie gekostet?





## Ernährungsszenarien im Nachhaltigkeits-Check

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23.03.2023 | ZHAW Departementstag 2023 "Nachhaltigkeit" | ZHAW Winterthur

# Die dreifache Herausforderung des Anthropozäns (Kremen & Merenlender, 2018)

## Biodiversitätsverlust



## Klimawandel



## Limitierte Ressourcen



# Sustainable Development Goals (SDGs)



**FEED**

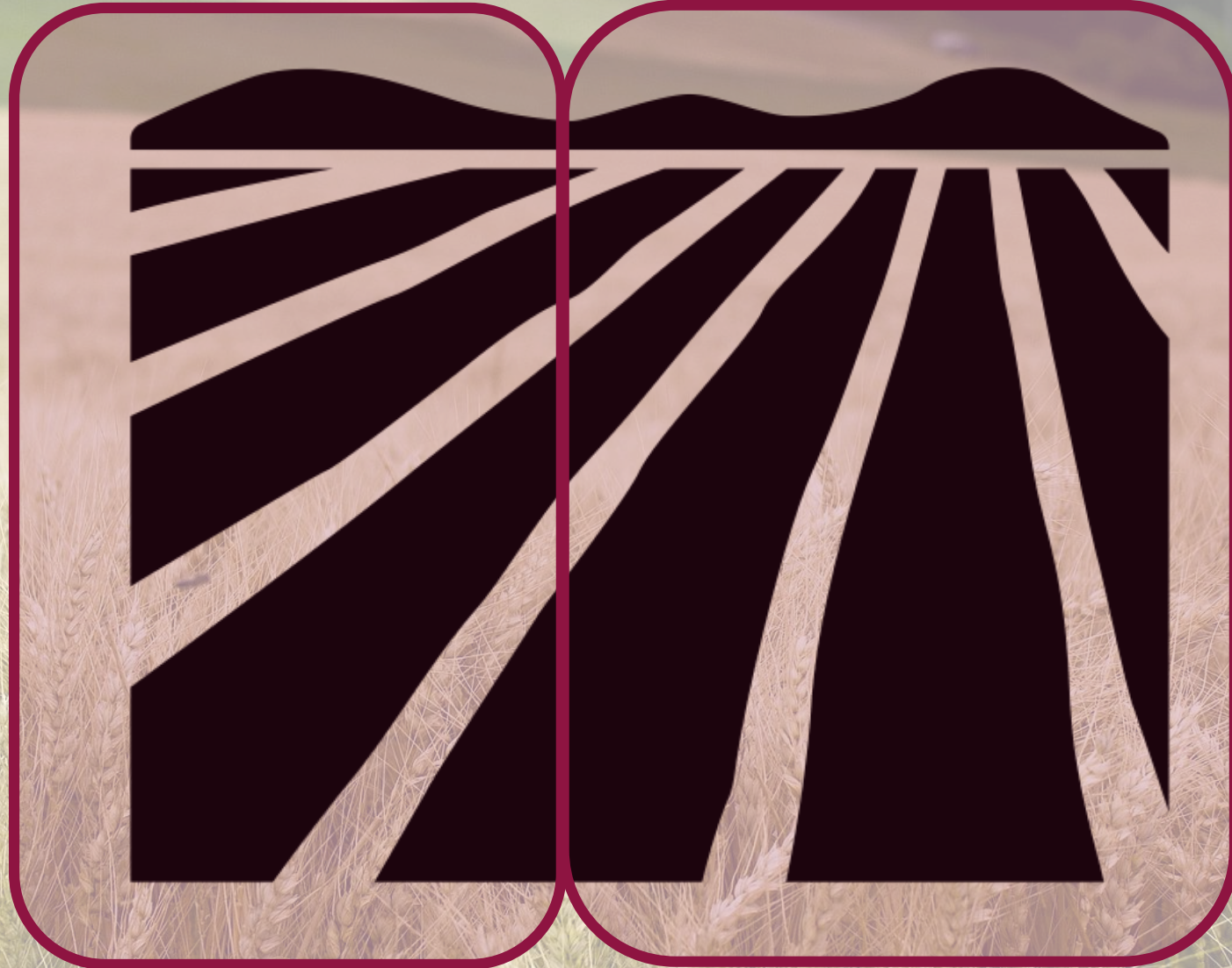
**WASTE**

**FOOD**



**FEED**

**FOOD**



# Ernährungssituation in der Schweiz

## Lebensmittelpyramide

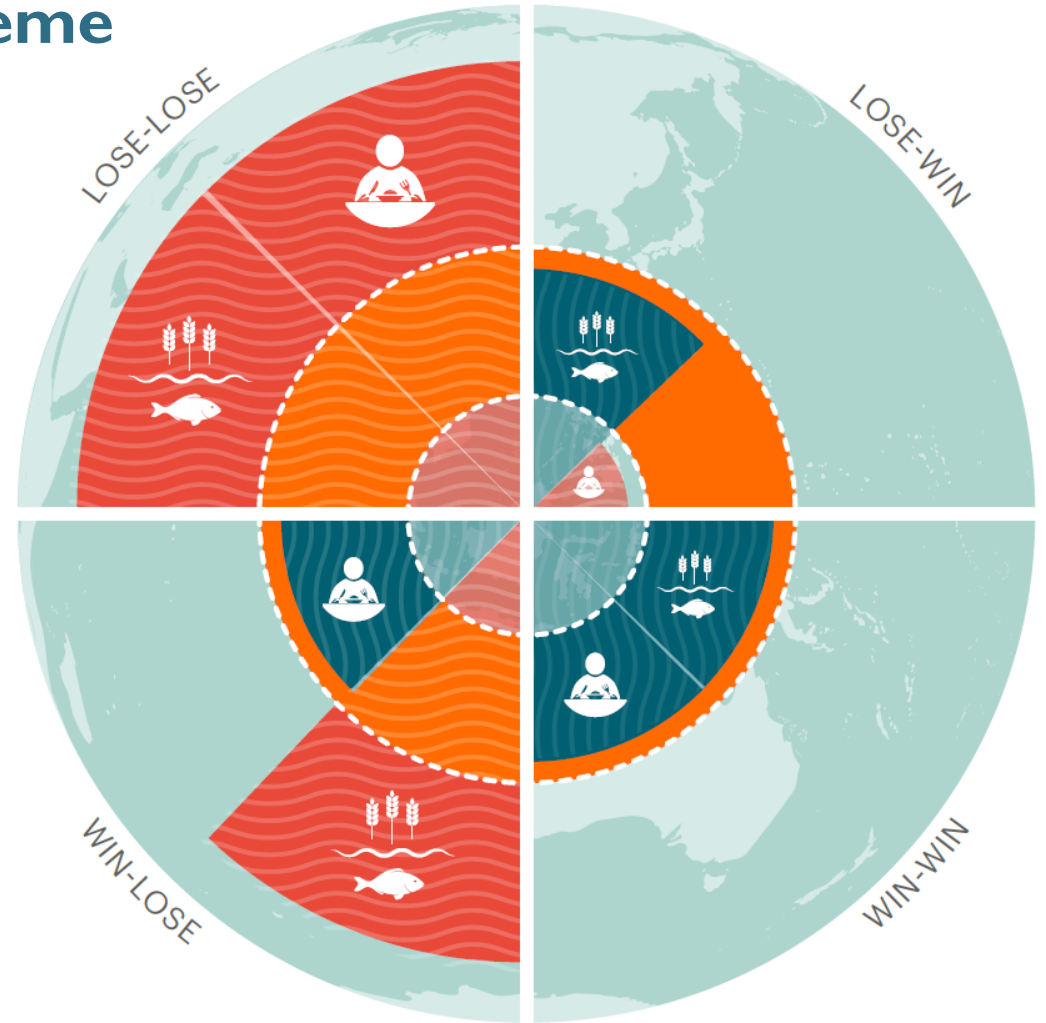
## menuCH Ernährungserhebung



# Verbesserungsraum für Ernährungssysteme



Source: EAT-Lancet



Source: EAT-Lancet



# Konsum- und produktionseitige Strategien



Reduzierter  
Fleisch-  
konsum

25% | 50% | 100%



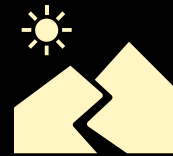
Ernährungs-  
empfehlung

25% | 50% | 100%



Reduzierter  
food waste

25% | 50%



Erhöhter  
Konsum  
einheimischer  
Lebensmittel

≥ 50%



Erhöhter  
Konsum  
biologischer  
produzierter  
Lebensmittel

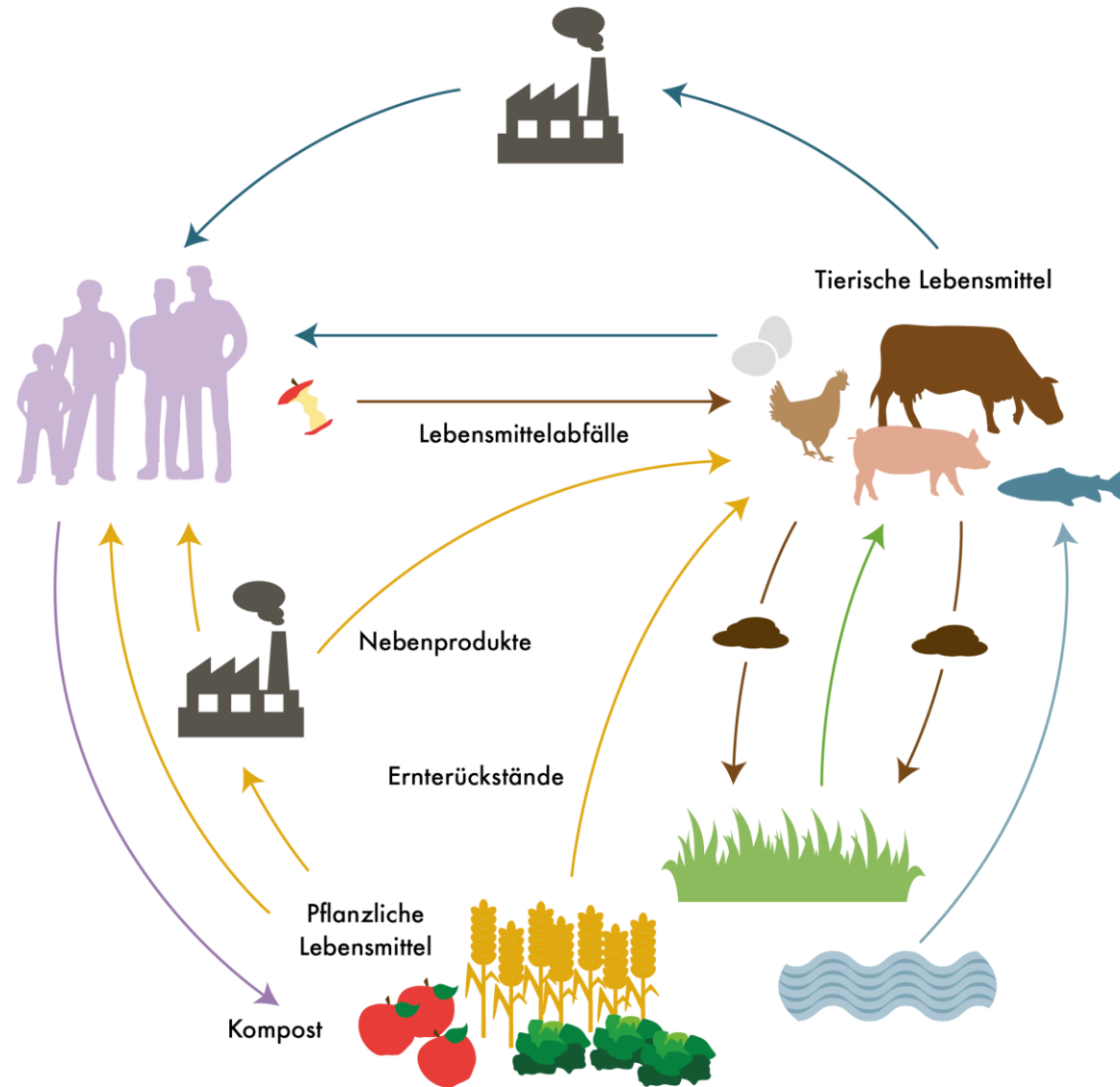
25% | 50% | 100%









Mehr biologische  
Lebensmittel  
und zirkuläre  
Strategien

25% | 50% | 100%

# Zirkuläre Strategie: Weniger Flächen- und Nahrungsmittelkonkurrenz

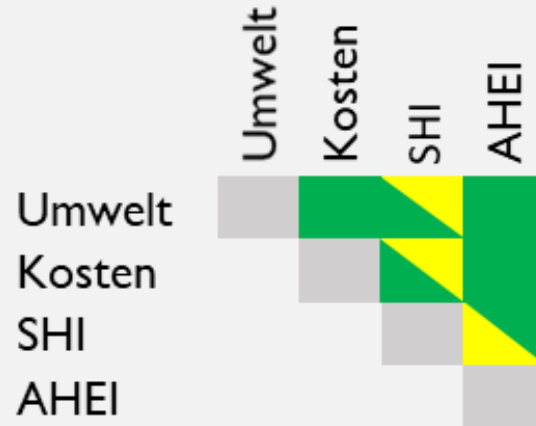


Positiv		Negativ				Klima- wandel	Land- nutzung	Stickstoff- überschuss	Soziale Risiken	Ernährungs- qualität	Kosten
<20%	<20%	no diff									
20-40%	20-40%										
>40%	>40%										
	<b>Reduktion Fleisch</b>	25%	-14.8%	-17.1%	-14.9%	-1.8%	2.1%	-6.0%			
		50%	-29.1%	-32.5%	-28.7%	0.0%	13.6%	-11.0%			
		100%	-55.3%	-56.0%	-51.0%	18.9%	17.9%	-17.0%			
	<b>Ernährungs- pyramide</b>	25%	-8.5%	-8.3%	-8.0%	2.6%	14.3%	-6.9%			
		50%	-17.0%	-16.1%	-16.6%	5.3%	28.6%	-13.8%			
		100%	-34.0%	-33.2%	-32.2%	10.6%	57.3%	-27.6%			
	<b>Food waste</b>	25%	-1.9%	-1.9%	-2.0%	-2.8%	0.0%	-2.4%			
		50%	-3.8%	-3.7%	-4.0%	-5.6%	0.0%	-4.9%			
	<b>Lokal</b>	50%	-0.3%	2.0%	-0.4%	-20.2%	0.0%	0.0%			
		25%	0.3%	8.3%	-15.0%	0.0%	0.0%	10.6%			
	<b>Biologisch</b>	50%	0.5%	16.7%	-30.0%	0.0%	0.0%	21.1%			
		100%	1.0%	33.3%	-60.0%	0.0%	0.0%	42.2%			
	<b>Zirkulär biologisch</b>	25%	-7.3%	-12.5%	-18.8%	0.0%	0.0%	10.6%			
		50%	-14.6%	-28.1%	-37.5%	0.0%	0.0%	21.1%			
		100%	-29.3%	-68.9%	-75.0%	0.0%	0.0%	42.2%			

Frehner et al., 2021,  
American Journal of  
Clinical Nutrition

# Synergien und Zielkonflikte

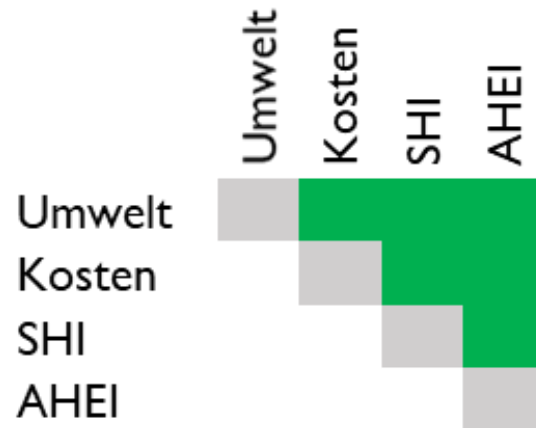
## Mehr Hülsenfrüchte



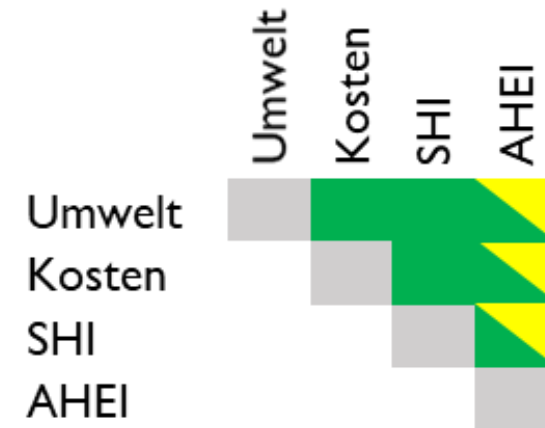
## Mehr Früchte und Gemüse



## Weniger Rind- und Schweinefleisch



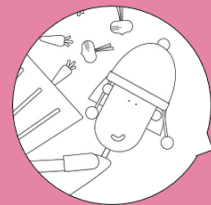
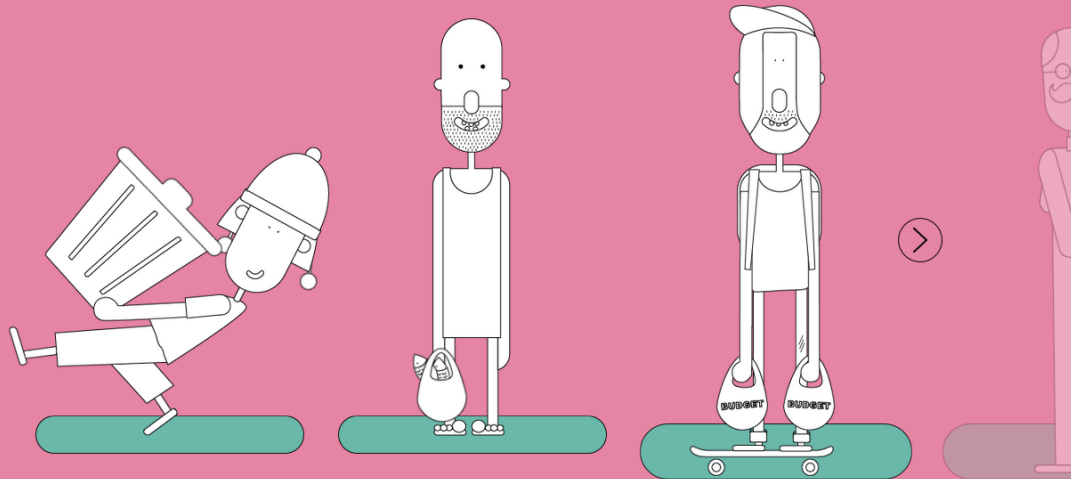
## Weniger Geflügel und Fisch



Frehner A., 2021, Diss.  
Wageningen University  
and Research

# Healthy and sustainable: Simulator

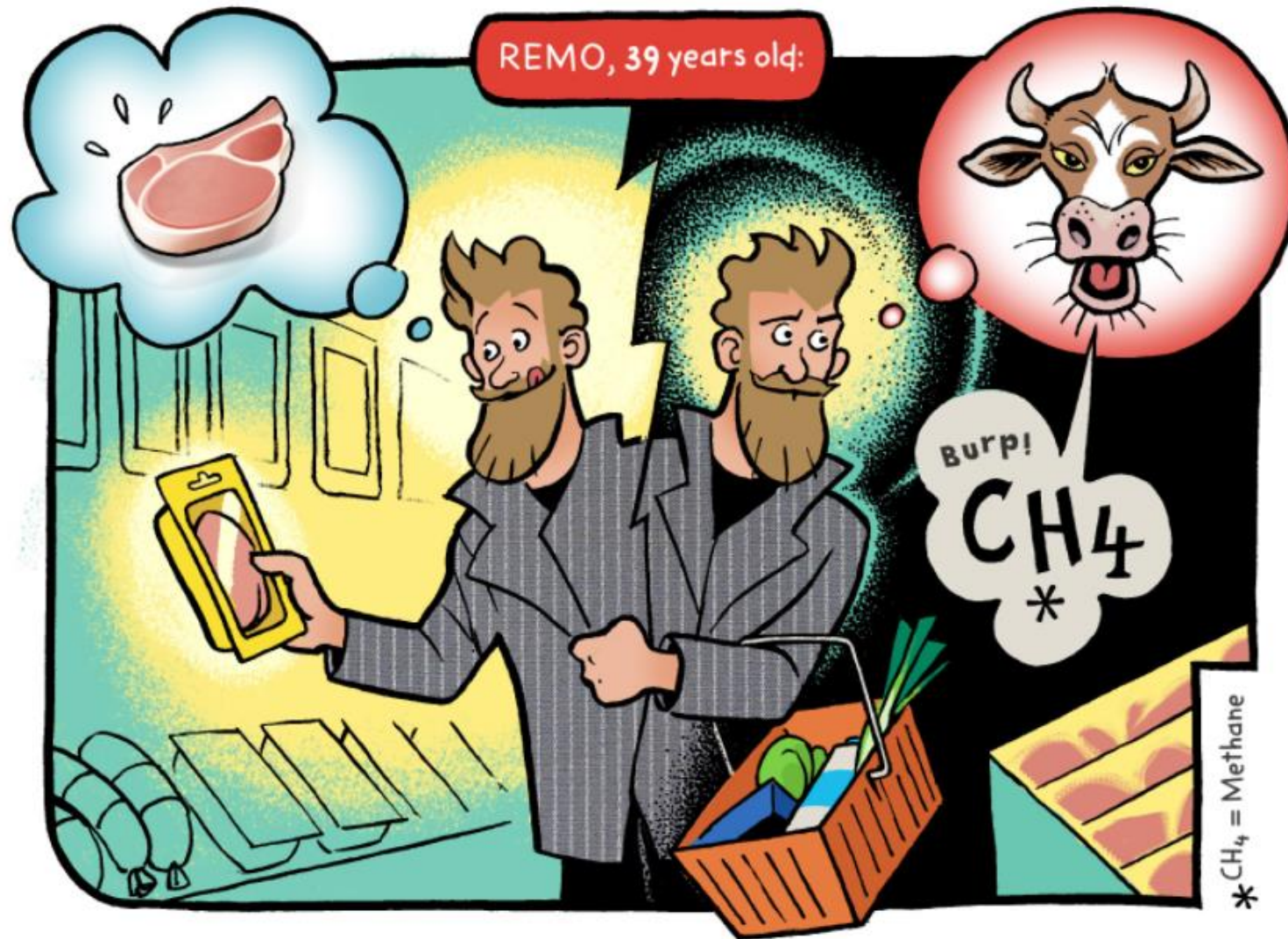
What type of consumer are you?



## Sarah the food waste avoider

One third of global food production is either thrown away or wasted as it makes its way along the food chain. The resources used to produce it are therefore also wasted. This has made 51-year-old Sara sit up and think. Nowadays, she and her family take much greater care to ensure they don't leave food to rot or simply throw it away. As a result, Sara has been able to reduce household waste, and the family is saving money too.

<http://healthyandsustainable.ch/en/simulator>



**MORE SUSTAINABLE ENJOYMENT — THIS IS HOW IT WORKS!**

What we eat and buy has an impact on our health, the environment, the economy, and on humans and animals — both in Switzerland and in other countries. How can we make sure our influence is as positive as possible? How can we eat in a way that is healthy and sustainable? Here are some ideas...

# Empfehlungen

- “Eat food, not too much, mostly plants.” (Michael Pollan)
- Kombination von Strategien vielversprechend
- Gemeinschaftsgastronomie → grosser Hebel

## Kontakt

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### Studie:

Frehner, A., De Boer, I. J. M., Muller, A., Van Zanten, H. H. E., & Schader, C. (2022). Consumer strategies towards a more sustainable food system: insights from Switzerland. *The American Journal of Clinical Nutrition*, 115(4), 1039-1047.

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**FOCUS**

Nachhaltige und  
gesunde Ernährung  
gehen Hand in Hand