Transition pathways towards a more sustainable food system considering dietary consumer archetypes

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Introduction

The research:
- focuses on the relationship between dietary patterns, psychological factors, and socio-demographic characteristics;
- aims to bridge the gap between consumer behavior analysis and practical policy making;
- offering insight into how interventions and policies can address specific consumer archetypes to enhance the sustainability of the food system;
- seeks to identify the potential for change on the consumer side;
- identifies leverage points and transition pathways for the change through a consumer survey;
- taking into account the nature of different consumer archetypes.

"The consumption of healthy and sustainable diets offers opportunities to reduce greenhouse gas emissions from food systems and improve health outcomes", Peyraud and Macleod, 2020

Background

Dietary choices are influenced by personal and socio-cultural factors. Despite rising health and environmental concerns, global meat consumption is expected to grow by 2050. Consumers fall into three groups—**meat eaters, reducers, and avoiders**—driven by different motivations and values. While interest in sustainability is rising, price and taste remain primary drivers. Closing the gap between attitudes and behaviors requires inclusive, value-aligned policies and a combined top-down/bottom-up approach to encourage dietary change and support sustainable food systems.

Methodology

- We applied the **Alphabet Theory** framework and addressed the attitude-behaviour gap by integrating motivation as a key variable in behaviour analysis.
- We designed and conducted a cross-national online survey (n=2551) in **Germany, France, Italy, Sweden, and Romania** to explore self-reported eating habits, attitudes, motivation, and socio-demographics characteristics.
- We investigated **consumer acceptance of sustainability policies** (e.g. food labeling, guidelines, financial incentives, and regulations) to inform decision-making in the food system.

Tab.1: Acceptance of interventions related to sustainable food consumption single archetypes

	Dairy	Starch	Protein	Fibres	Total
Labelling of sustainable products (traffic light)	3.72	3.81	3.63	4.00	3.78
Release concrete instructions for sustainable food choices and communicated to	3.60	3.63	3.52	3.93	3.67
Labelling of benefits of sustainable foods.	3.75	3.80	3.57	4.01	3.77
Financial incentives for sustainable food choices (e.g. VAT reduction for sustainable alternatives).	**3.82**	**3.86**	**3.60**	**4.05**	**3.82**
Impose taxes/monetary compensation for unsustainable products.	3.03	3.12	3.20	3.38	3.19
The introduction of binding agricultural regulations to promote greater sustainability in the food system.	3.49	3.60	3.53	3.86	3.62

Tab.2: Acceptance of policies related to sustainable food consumption single archetypes

	Dairy	Starch	Protein	Fibres	Total
Continued meat (and other animal-based products) consumption: Meat consumption patterns cannot and should not be moderated.	3.23	3.29	3.22	2.84	3.13
More efficient meat (and other animal-based products) production through improved production systems.	3.69	3.68	3.52	3.64	3.62
More artificial lab-grown meat as an alternative to meat.	2.24	2.16	**2.65**	2.33	2.38
More protein-rich foods from plants and algae as an alternative to meat (and other animal based-products).	3.03	3.09	3.25	3.52	3.24
Shift to consumption of locally produced meat (and other animal-based products).	3.78	**3.87**	3.61	**3.90**	**3.78**
Significant reduction of meat (and other animal-based products) consumption.	**2.99**	3.00	3.20	3.55	3.21
Shift to consumption of meat (and other animal-based products) from animal friendly production systems.	3.80	**3.87**	3.62	3.92	**3.79**
More meat and other animal-based products from organic production.	3.60	3.72	3.52	3.74	3.63

Results

We identified four distinct consumer archetypes - **Dairy, Starch, Protein, and Fibres** each characterized by specific dietary patterns, socio-demographic characteristics, and levels of motivation and attitudes for sustainable food consumption.

‣ Sustainability motivations and concerns vary significantly across regions and consumer archetypes:
- **"Fibres"** group shows the strongest motivation for sustainable food choices across environment, climate, and animal welfare, alongside a high focus on nutrition.
- **"Protein"** consumers rank second in sustainability motivation, except for animal welfare.
- **"Starch"** consumers, common in Romania and with lower education and income, are the least motivated.
- **"Dairy"** consumers score highest on animal-friendly choices but lower on other sustainability aspects.

‣ Consumers prefer pull policies (e.g., financial incentives, labeling) over push measures (e.g., taxes), with notable variation in acceptance depending on consumer archetypes.

Discussion

‣ The overall findings highlight the **complexity** of consumer behaviour related to sustainable consumption and the need for **tailored strategies** to support dietary shifts.
‣ These archetypes provide valuable insights into consumer behavior and their potential responsiveness to sustainability policy interventions.
‣ There is strong support for local, animal-friendly meat production and opposition to intensive farming, lab-grown meat, and plant-based substitutes. While the overall preference leans toward traditional approaches, variations across consumer archetypes suggest the need for further analysis to assess the potential for innovation and relevant consumer segments.

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