How do consumers perceive sustainability?

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EU-project: SUSFANS

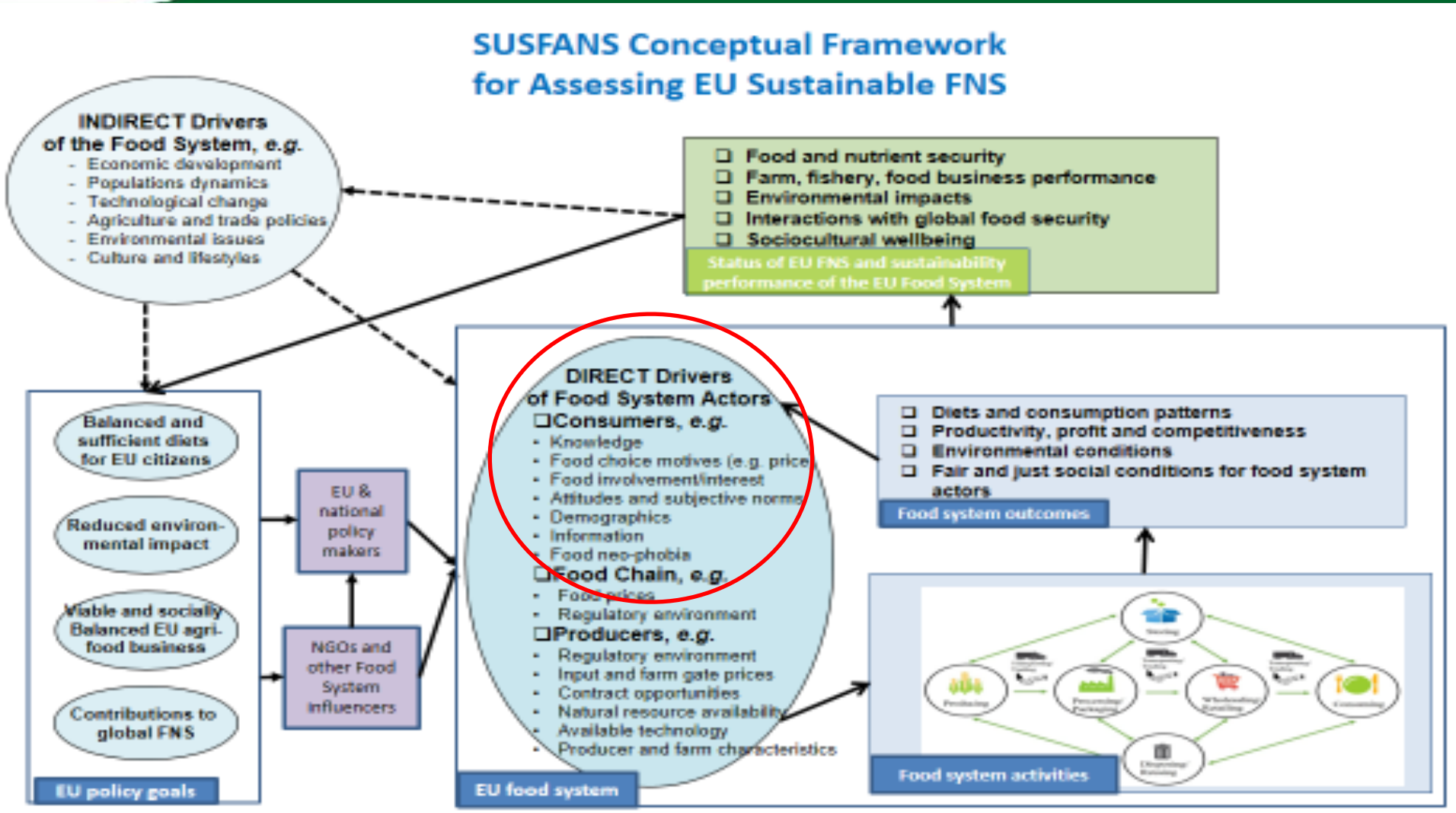
Overall aim of SUSFANS

To strengthen sustainable food and nutrition security in Europe, by advising food policy makers regarding healthy and sustainable food production and consumption.

Aim current research

To identify consumer drivers of change of diets across different countries.

SUSFANS conceptual framework



Method: participants

- Online survey 5043 participants
  - 5 countries (NL, DK, CZ, FR, IT)
  - Spring 2016
  - Representative on gender, age, education, urbanisation
  - 18+

Method: online questionnaire

1. Perceptions of sustainable food

2. Intentions and behaviour
   - ➢ Openness to meat replacers

3. Underlying drivers

Regression analysis

Method: underlying drivers

Underlying drivers included in the regression analyses:

- **Demographics**
  - Country, Gender, Age, Education, Income
- **General drivers of food consumption**
  - General Food Involvement
  - Food Neophobia
- **Specific drivers of healthy/sustainable food consumption**
  - Subjective knowledge about healthy/sustainable food
  - Attitude healthy/sustainable food
  - Interest in healthy/sustainable food
  - Descriptive norm sustainable consumption
  - Perceived effectiveness sustainable consumption
- **Food choice motives**
  - Sensory, Price, Convenience, Natural, Seasonal, Local, Mood, Weight/health, Sustainable, Familiarity

Results
Perception of sustainable food

Table 1 Perception of sustainability aspects (% mentioned)[1]

	Total	NL	DK	CZ	FR	IT
Seasonal fruits and vegetables	35.9	31[a]	31.6[a,b]	33.0[a,b]	19.0[c]	35.2[b]
Food waste	34.0	29.2[a]	41.3[b]	36.2[c]	27.0[a]	36.1[c]
Water use	32.1	36.6[a]	30.8[b]	36.6[a]	31.8[b]	26.2[c]
Use of natural resources	31.9	39.3[a]	29.2[b]	35.2[a]	25.2[c]	30.2[b]
Air and water pollution (e.g. nitrogen, ammonia, nitrates, phosphorus)	29.3	34.3[a]	31.4[a]	27.4[b]	22.8[c]	30.7[a,b]
Animal welfare	29.3	32.1[a]	41.5[b]	22.9[c]	23.1[c]	27.2[d]
Healthy food	28.4	24.5[a]	25.8[a]	42.0[b]	18.6[c]	30.6[d]
Organic food	28.1	30.8[a]	39.1[b]	17.9[c]	25.8[d]	26.8[d]
Food safety	27.8	27[a]	28.5[a,b]	31.8[b]	19.9[c]	31.1[b]
Local or regional food	27.7	20[a]	27.7[b,c]	30.5[c]	34.6[d]	25.7[b]
Use of pesticides	27.6	30.4[a,b]	32.4[b]	20.5[c]	26.7[a]	28.4[a]
Land use	26.7	27[a]	14.1[b]	39.6[c]	25.2[a]	27.2[a]
Transportation distance of food	26.0	25.6[a]	27.3[a]	21.4[b]	32.2[c]	23.6[a,b]

Results
Perception of sustainable food

Table 1 *Perception of sustainability aspects (% mentioned)*[1]

	Total	NL	DK	CZ	FR	IT
Fair wages for producers	19.9	24.6 [a]	24.6 [a]	14.5 [b]	18.3 [c]	17.6 [b.c]
Affordable food	19.2	14.8 [a]	15.2 [a]	33.8 [b]	10.6 [c]	21.2 [d]
Biodiversity	18.8	19.2 [a]	14.5 [b]	11.1 [c]	26.7 [d]	22.7 [e]
Balanced diet	18.4	10.7 [a]	15.9 [b]	29.6 [c]	17.6 [b]	17.9 [b]
Global food availability	17.8	18.2 [a]	17.1 [a]	22.1 [b]	13.1 [c]	18.3 [a]
The amount of meat consumption	16.6	20.6 [a]	15.3 [b]	15.1 [b]	16.8 [b]	15.1 [b]
Ethical working conditions	15.3	16.1 [a]	18.0 [a,b]	11.3 [c]	11.2 [c]	19.9 [b]
Child labour	9.7	16.4 [a]	12.0 [b]	4.4 [c]	5.4 [c]	10.2 [b]
Malnutrition	7.6	6.8 [a,b]	6.0 [a,b]	5.2 [b]	8.0 [a]	11.9 [c]

Results
Openness to replacements of meat

Table 7 *Openness to several types of meat-replacing products per country*

	NL	DK	CZ	FR	IT
Animal-based products	4.50^{a}	4.55^{a}	5.00^{b}	4.82^{c}	$4.85^{b,c}$
Plant-based products	3.52^{a}	3.33^{b}	3.51^{a}	3.72^{c}	3.88^{d}
New products	$2.22^{a,b}$	2.04^{c}	1.77^{d}	2.34^{a}	$2.08^{b,c}$

Note: Different subscripts per row indicate significant different values

Animal-based products	Plant-based products	New products
Demographics Gender (*Beta*=-.056***) Inc (*Beta*low=-.036*) Edu (*Beta*low=-.075***)	**Demographics** Gender (*Beta*=-.045**) Age (*Beta*=-.121***) Edu (*Beta*low=-.140***; *Beta*med=-.094***)	**Demographics** Gender (*Beta*=.147***) Age (*Beta*=-.195***) Inc (*Beta*low=-.045**) Edu (*Beta*low=-.087***; *Beta*med=-.091***)
General drivers Food involvement (*Beta*=.101***) Food neophobia (*Beta*=.165***)	**General drivers** Food involvement (*Beta*=.053**) Food neophobia (*Beta*=.114***)	**General drivers** Food involvement (*Beta*=.045**) Food neophobia (*Beta*=.081***)
Subjective knowledge Sustainability (*Beta*=-.041*)	**Subjective knowledge** Health (*Beta*=.073***)	**Subjective knowledge** Sustainability (*Beta*=.041*)
Food interest Sustainability (*Beta*=-.050*)	**Food interest** Sustainability (*Beta*=.069**)	**Food interest** Health (*Beta*=-.099***)
Attitude Sustainability (*Beta*=.078***) Health (*Beta*=.101***)	**Attitude** Sustainability (*Beta*=.093***)	**Attitude** Sustainability (*Beta*=.064**) Health (*Beta*=-.160***)
Descriptive norm Sustainable consumption (*Beta*=.074***)	**Descriptive norm** Sustainable consumption (*Beta*=.101***)	**Descriptive norm** Sustainable consumption (*Beta*=.225***)
		Perceived effectiveness Sustainable (*Beta*=-.050***)
Motives Nat, seas, loc (*Beta*=.089**) Sensory (*Beta*=.043**)	**Motives** Sustainability(*Beta*=.098***) Nat, seas, loc (*Beta*=.092***) Sensory (*Beta*=-.092***) Weight, health (*Beta*=-.065**) Familiarity(*Beta*=-.107***)	**Motives** Mood (*Beta*=.056**) Sensory (*Beta*=-.174***) Weight, health (*Beta*=.099**)

Conclusion
1. Perceptions of sustainable food consumption

Most often perceived as aspects of sustainability:

- The environmental aspect (seasonal F&V, waste, use of water and natural resources)

Least often perceived as aspects of sustainability:

- The social aspect of sustainability (e.g. ethical working conditions)
- The amount of meat consumption

Conclusion
2. Behavior & Underlying drivers

Openness to meat replacements

- Consumers are most open to animal-based products
- Consumers are least open to new products

Underlying drivers

- Consumers are more open to meat replacements, when:
  - Higher educated
  - More involved with food
  - Less food neophobic
  - Positive attitude towards sustainable food consumption
  - Perceived norm that others are eating sustainable

Conclusion
2. Behavior & Underlying drivers

- Gender
  - Females more open to animal- & plant-based products
  - Males more open to new products
- Age
  - Younger people are more open to plant-based and new products as compared to older people.
- Attitude towards healthy food consumption
  - Positive attitude more open to animal-based products
  - Negative attitude more open to new products
- Food choice motive: Sensory appeal
  - The more important ‘sensory appeal’, the less open to plant-based and new products
  - The less important ‘sensory appeal’, the more open to animal-based products

Thanks for your attention!