SUSFANS – Where does the project stand?

Metrics, models and foresight for sustainable food and nutrition security in Europe

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4th meeting, Stakeholder Core Group, Amsterdam Airport Schiphol, 5-6 June 2018

WAGENINGEN
UNIVERSITY & RESEARCH

H2020
Grant no.
633692

SUSFANS
food systems for health - environment - enterprise

Interdisciplinary research on metrics, models and foresight for sustainable food and nutrition security in Europe

Working with partners towards EU food systems for health, environment and enterprise...

...By delivering high-quality research on metrics, models and foresight to support evidence-based policies and innovation strategies for a sustainable and food and nutrition secure EU.

H2020
Grant no.
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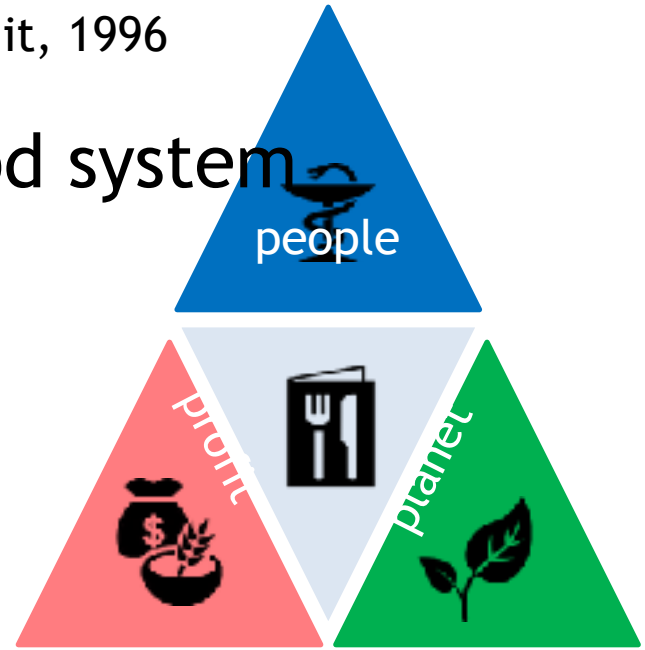
European *sustainable* food and nutrition security

Food and nutrition security in EU

World Food Summit, 1996

+

Sustainable food system



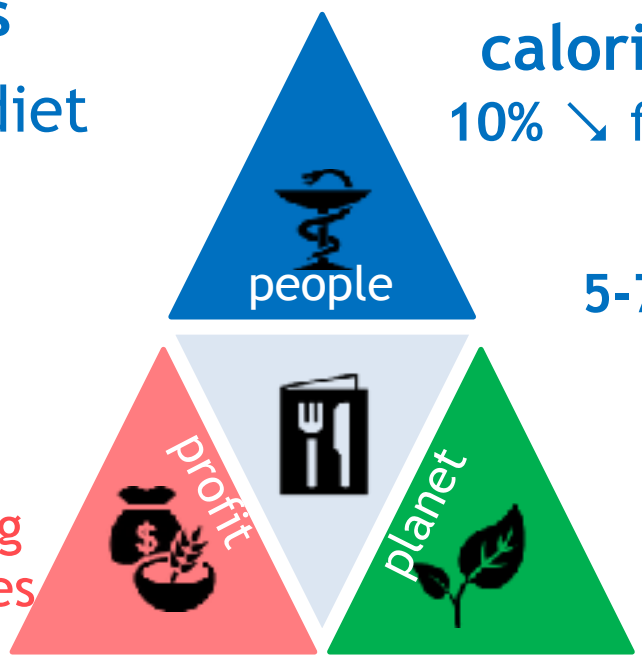
Rutten et al. (2018); Zurek et al. (2017, forthcoming)

EU Sustainable food & nutrition security – food system public goods and "bads"

20-75% of cancers

is attributable to diet

(WCRF, 1997)



Burden of malnutrition: calorie deficiency (in NMS)

10% ↘ fruits & vegetables, ↗salts

8% underweight (children)

(Lim, 2010)

5-7% of pop. undernourished

(IFPRI, 2014; Cockx et al. 2015)

Growth & jobs

In EU MS farms, fishing & food/drink industries contribute

5-15% of GDP;

1-30% of jobs

(Eurostat 2015)

Climate change, polluted air & water, biodiversity, food loss

15-28% of total GHGe is attributable to food supply

SUSFANS research objective

«To build the conceptual framework, the evidence base and **analytical tools**

for underpinning EU-wide food policies with respect to their impact on **consumer diets and their implications**

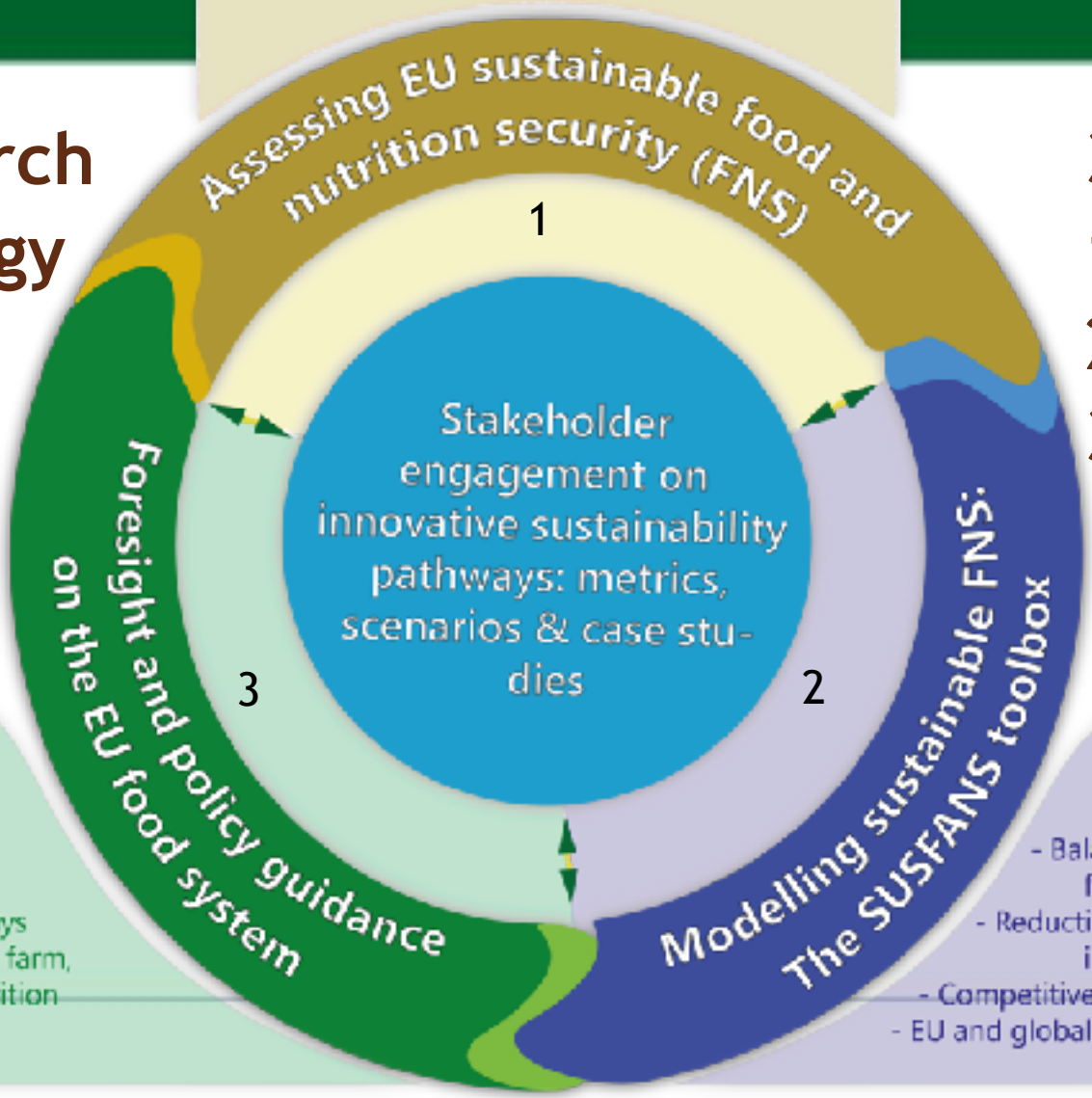
for nutrition and public health in the EU, the environment, the competitiveness of the EU agri-food sectors, and global food and nutrition security»

Leverage points (working hypotheses)

- Strengthening **EU food and nutrition security** requires more sustainable food consumption and production
- Consumer diets a pivotal tool – a shared responsibility!
- Impact of **consumer choice & diets** on society ←→decisions along entire food value chain
- **Innovation and policy** reform drive societal change
- Need analytical **tools** to inform debate

Research Strategy

&



3 “Pillars”

1. Assessing
2. Modelling
3. Foresight policy

SUSFANS Research Consortium (2015-2019)

Grant no. 633692 under H2020-SFS-19A (Societal challenge 2)

Project Advisory Board

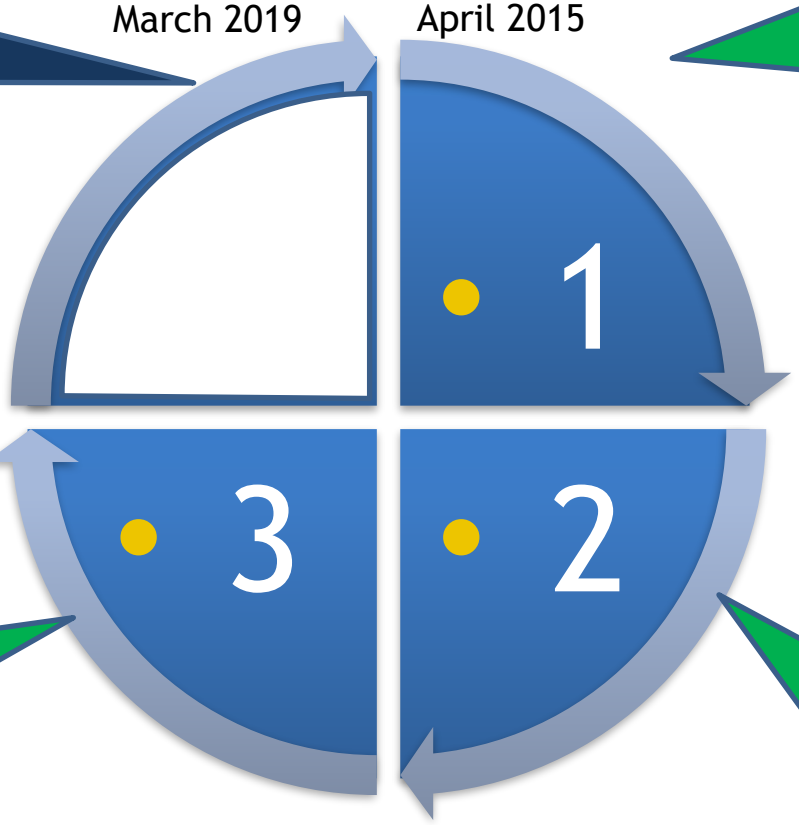
- Jacqueline Broerse (Athena Institute, VU Amsterdam)
- Karen Cooper (Nestlé and FReSH / WBCSD)
- John Ingram (University of Oxford, UK)
- Monique Raats (University of Surrey, UK)

State of play

Project phases & stakeholder dialogue

END
March 2019

START
April 2015



FINAL workshop
Validate & disseminate the SUSFANS toolbox

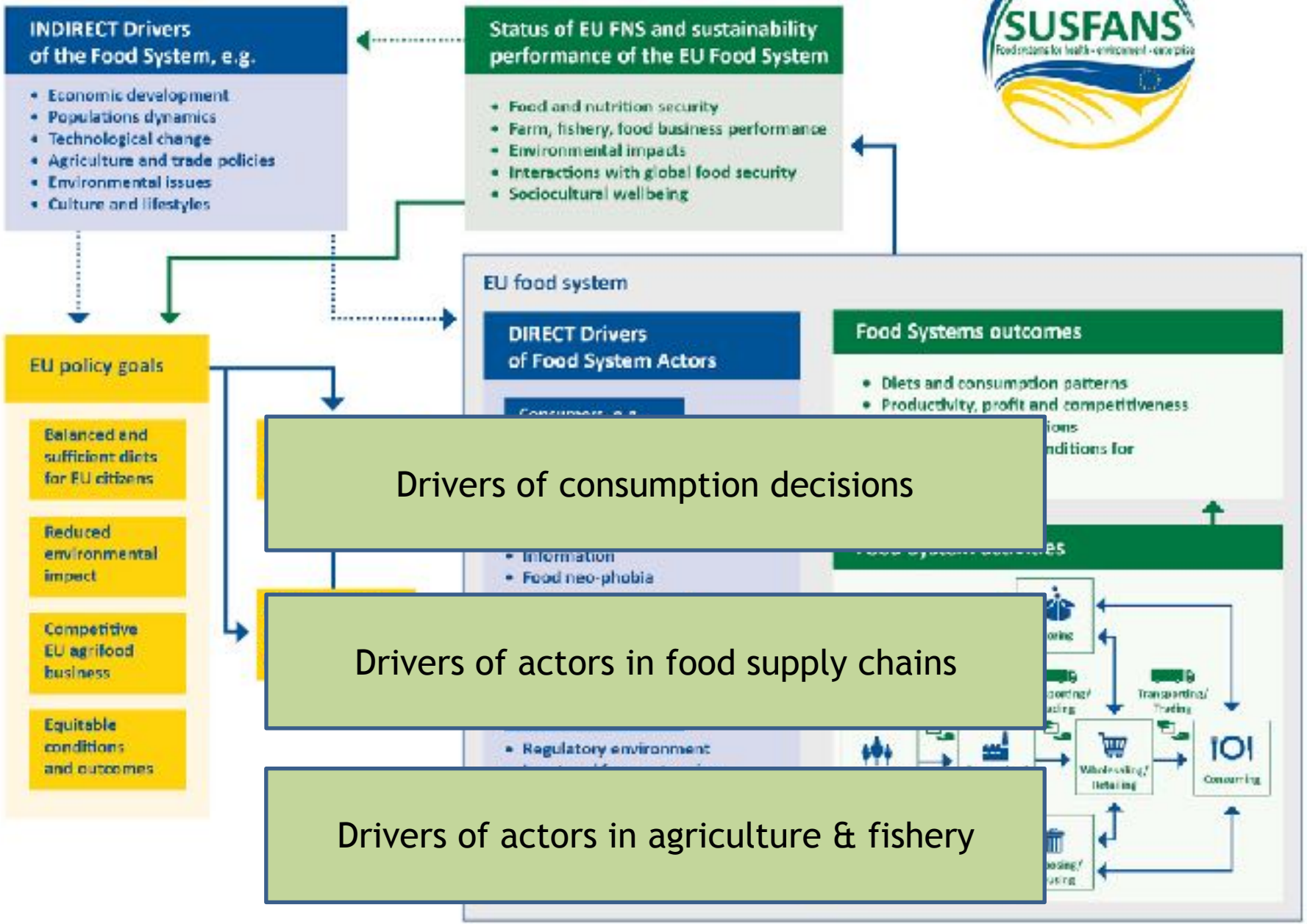
1st workshop
October 2015
Scoping

4th workshop
Spring 2018
Test
(Fruit & Vegetables)

3rd workshop
September 2017
Test
(animal source food)

2nd stakeholder core group workshop
27-28 October 2016
Review metrics

SUSFANS Conceptual Framework for Assessing EU Sustainable FNS

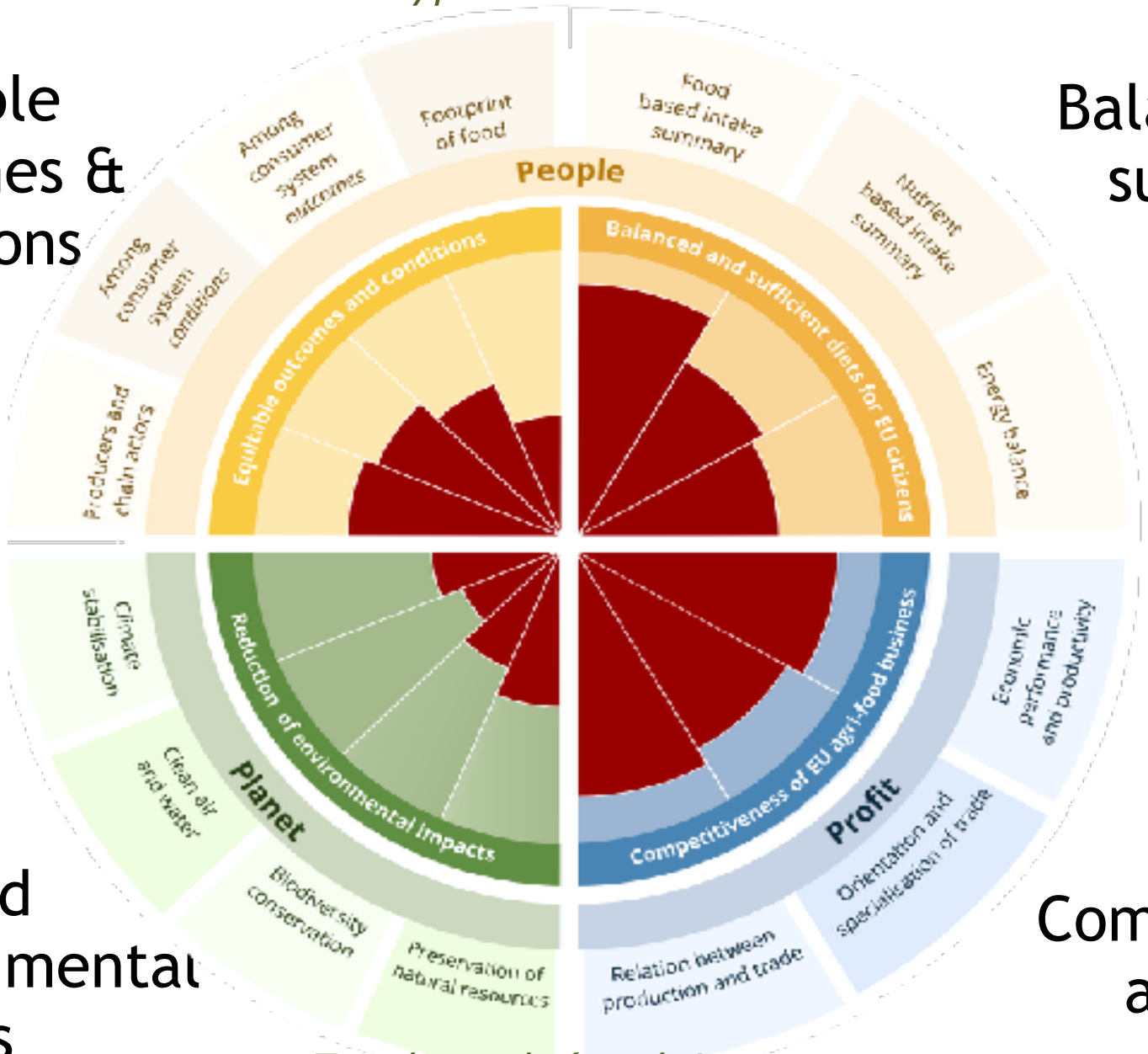


SUSFANS performance metrics for EU food systems

Note: hypothetical assessment

Equitable outcomes & conditions

Balanced & sufficient diets



Reduced environmental impacts

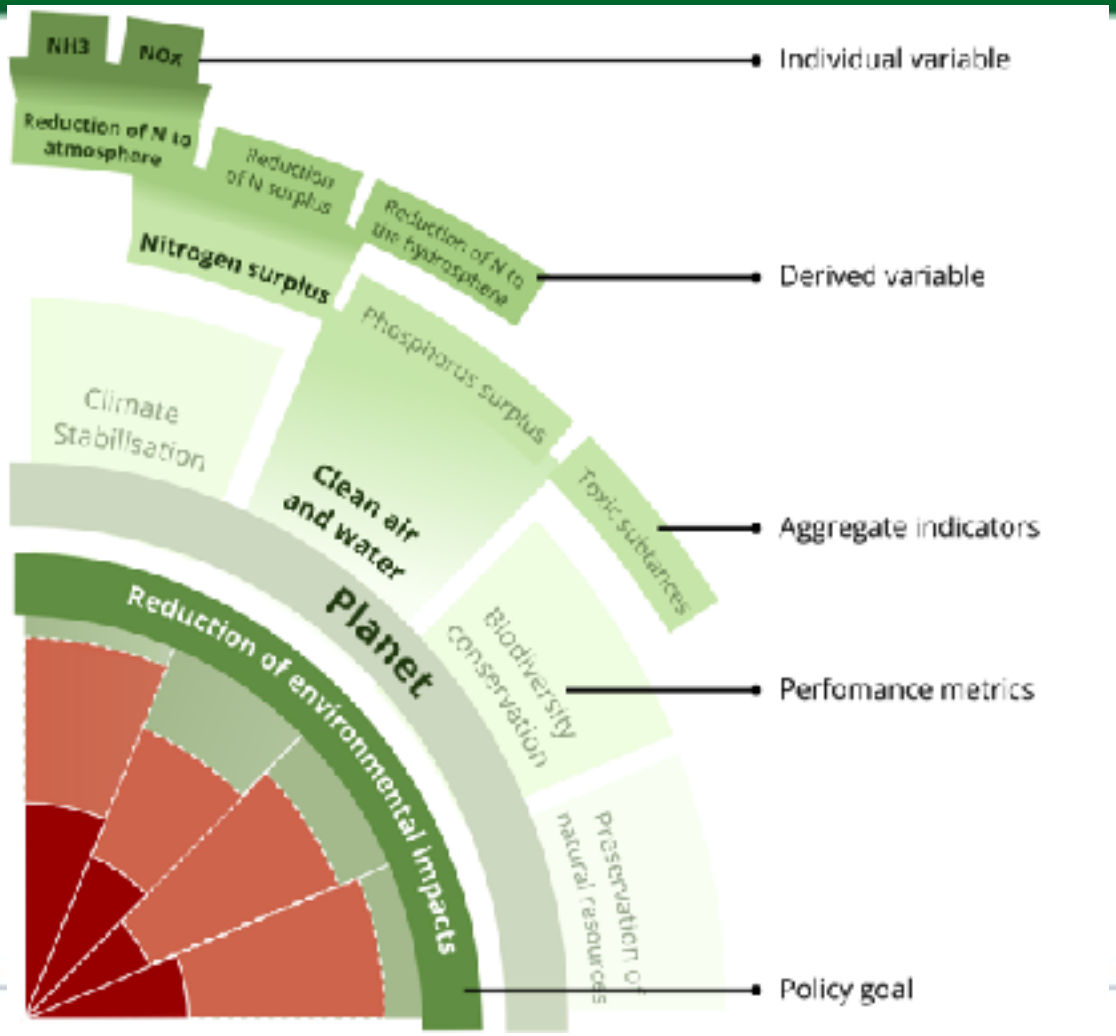
Competitive agri-food business

Zurek et al. (work in

Metrics for goals and sub-goals of EU sustainable FNS

Hierarchical approach to building performance metrics out of individual indicators, depicted in the SUSFANS SFNS-impact visualizer

Zurek et al. (2018)



Models in the SUSFANS box

Macro-economy	*Diet & health*	*Agricultural production*
	SHARP Product detail Specific diet needs Short run EU4	**GLOBIOM** Spatial detail Environmental impacts Long run Global, grid
MAGNET Complete economy Income effects Long run Global, countries	**DIET** Consumers preferences Health & environment Short run EU3	**CAPRI** EU detail Production detail Long run Global, EU, NUTS2

Foresight on Sustainable FNS

Trading off healthier diets and environmental goals?

Balanced diet

Environmental protection

Today's meeting

- The consumer perspective in sustainable food and nutrition security
- Consumer-oriented innovation pathways for fruit and vegetables

- Provide an overview of relevant nutritional indicators, and a protocol for defining the nutritional adequacy
- Define on the basis of food-based dietary guidelines, complemented with specific nutrients that are important for human health.
- Metrics for assessing the policy goal related to « Balanced and sufficient diet for EU citizens".

European Journal of Nutrition
https://doi.org/10.1007/s00394-018-1673-5

ORIGINAL CONTRIBUTION

CrossMark

Geographic and socioeconomic diversity of food and nutrient intakes: a comparison of four European countries

Elly Mertens[1] · Anneleen Kuijsten[1] · Marcela Dofková[2] · Lorenza Mistura[3] · Laura D'Addezio[3] · Aida Turrini[3] · Carine Dubuisson[4] · Sandra Favret[4] · Sabrina Havard[4] · Ellen Trolle[5] · Pieter van't Veer[1] · Johanna M. Geleijnse[1]

Describe dietary intakes across 4 European countries - Data from national food surveys

Table 2 Energy-standardised food group intakes and the adherence to their corresponding food-based dietary guidelines in four European populations, aged ≥ 18 years

	Cut-offs	Denmark (n = 2025)				Czech Republic (n = 1869)				Italy (n = 2831)				France (n = 2624)			
		Mean	Median	(P25; P75)	%adh	Mean	Median	(P25; P75)	%adh	Mean	Median	(P25; P75)	%adh	Mean	Median	(P25; P75)	%adh
Foods to increase																	
Fruit, g/day	≥ 200	174*	133	(36.0; 255)	35%	118*	83	(12.0; 171)	20%	199*	163	(76; 275)	40%	140*	95	(0.0; 210)	26%
Vegetables, g/day	≥ 200	147*	112	(63; 184)	21%	95*	74	(39.0; 127)	10%	239*	206	(138; 300)	53%	187*	157	(84; 254)	27%
Legumes, g/day	≥ 19	6.5	1.6	(0.0; 6.7)	10%	7.5	0.0	(0.0; 3.0)	12%	11.0	0.0	(0.0; 2.4)	19%	16.5*	0.0	(0.0; 0.8)	18%
Nuts and seeds, g/day	≥ 15	2.2	0.0	(0.0; 0.0)	5%	2.6	0.0	(0.0; 0.0)	7%	0.5*	0.0	(0.0; 0.0)	1%	1.7	0.0	(0.0; 0.0)	3%
Dairy products, g/day	≥ 300	302*	248	(113; 422)	41%	134	94	(31.0; 192)	12%	129	116	(8.0; 20)	8%	199*	152	(55; 290)	24%
Fish, g/day	≥ 21	18.0	5.5	(0.0; 24.1)	28%	11.7	0.0	(0.0; 0.0)	17%	44.6*	6.5	(0.0; 77)	42%	34.3*	4.3	(0.0; 54)	43%

Variability between countries
Fruit : 118 to 199g/day
Vegetables : 95 to 239g/day
Dairy: 129 to 302g/day…

Low intakes for F&V ; High intakes for red and processed meats

Variability within countries: age, gender, education

Assessing the welfare, health, environmental effects of adopting dietary recommendations by consumers in France, Denmark, Finland

1. What would be the consequences on the whole diets (substitutions) induced, for instance, by a 5% increase in F&V consumption in the 3 countries?
2. What would be the health and environmental (GHGEs) consequences induced, for instance, by a 5% increase in F&V consumption in the 3 countries?
3. Would it be cost-effective to promote, for instance, a 5% increase in F&V consumption in the 3 countries?

DIET MODEL
Consumers preferences
Health & environment
Short run

EU3

Irz, Jensen, Leroy, Requillart, Soler (submitted). Based on Deliverable 2.6

Results

- Most **dietary recommendations (+ F&V, - red meat, - animal products…) would improve social welfare**
- Healthy-eating recommendations targeting consumption of **F&V, salt and saturated fat should be prioritized for promotion (=most cost-effective)**
- Although synergies dominate, **trade-offs between environmental and health** occur in some cases
- **The taste/utility costs of dietary changes** imposed on consumers should be included in the welfare analysis of diet recommendations
- **Common trends but also variability across countries** due to differences in current consumption patterns, food composition and consumers' preferences (income, and own and cross price elasticities)

Irz, Jensen, Leroy, Requillart, Soler (submitted). Based on Deliverable 2.6

Have a fruitful meeting!

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