

SUSFANS

Metrics, Models and Foresight for European Sustainable Food And Nutrition Security

A H2020 Research project to explore sustainable diets in the EU



Strengthening EU food and nutrition security requires more sustainable food consumption and production

To gauge the policy reforms needed for this major societal challenge, the SUSFANS-consortium will identify how nutritional health and food production in the EU can be better aligned. The multidisciplinary research agenda of SUSFANS will build the conceptual framework, the evidence base and analytical tools for underpinning EU-wide food policies with respect to their impact on consumer diet and their implications for nutrition and public health, the environment, the competitiveness of the EU agri-food sectors, and global food and nutrition security (FNS).

Based on a conceptual model of the food chain and its stakeholders (Fig. 1), SUSFANS will develop suitable metrics and identify major drivers for sustainable FNS, integrate data and modelling, and develop foresight for European sustainable FNS. The project will thereby provide a comprehensive set of tools for assessing sustainable FNS in Europe, centred around the implications of the current diet for the sustainability of production and consumption in the EU, and the options for the EU agri-food sector (including fisheries and aquaculture) to improve future diets in the near future (up to 5 years) and in the long run (one or more decades ahead). The research design, summarised in Fig 2, is based on three, inter-related pillars

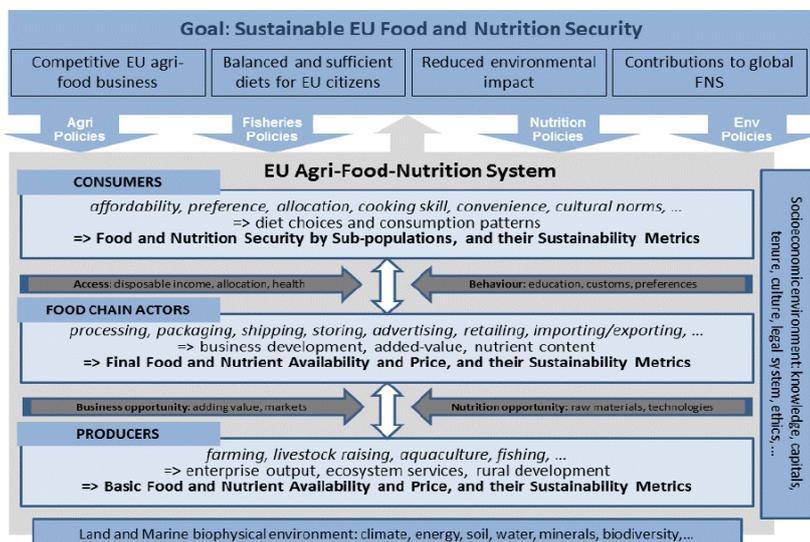


Fig. 1 Conceptual model

Project partners

Wageningen University and Research Centre
 Institute for Food and Resource Economics, Universität Bonn
 INRA, Institut National de la Recherche Agronomique
 CEPS, Centre for European Policy Studies University of Oxford
 IIASA, Internationales Institute für Angewandte System Analyse
 Státní zdravotní ústav (Czech National Institute of Public Health)
 ANSES, Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail
 CRA, Consiglio per la Ricerca e la Sperimentazione in Agricoltura
 DTU, Danmarks Tekniske Universitet Fødevareinstituttet
 ILSI-Europe (International Life Sciences Institute)
 SP, Sveriges tekniska forskningsinstitut
 JRC, European Commission Joint Research Centre IES
 National Taiwan University
 Luke, Luonnonvarakeskus (Natural Resources Institute Finland)
 DSM Nutritional Products
 Dutch Dairy Association (NZO)
 Unilever R&D

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Contract

H2020-SFS19A, Grant 633692, to the sum of €5M over 2015 to 2019



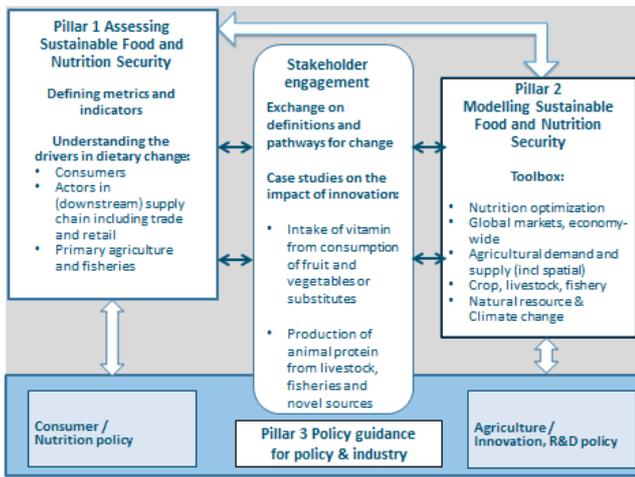


Fig. 2 Research design

Pillar 1: Assessing sustainable FNS

The vision is that sustainable FNS in Europe has to be based on "SHARP" (Sustainable Healthy Affordable Reliable Palatable) diets, and that patterns of consumption, production, processing and trade will shift to better support those qualities. Analysing the factors that underpin the vision requires a strong conceptual framework and sustainability metrics encompassing a number of world views.

Pillar 2: Innovative micro- and macro-modelling of the nutrition chain from primary production to consumer intake

A core methodology is a coherent toolbox (Fig. 3) which integrates two complementary strands of state-of-the-art quantitative analysis: (i) micro-level modelling of nutrient intakes, habitual dietary patterns and preferences of individual consumers, and

(ii) macro-level modelling of food demand and supply in the context of economic, environmental and demographic changes on various time-scales (short to long term) and for multiple sub-regions. The tools will bridge the current gap between policy analysis on the EU agri-food sector and the nutrition-health sector. Case studies and scenarios based on stakeholder input from consumers, food industry, farmers/fishermen, government and the scientific community, are instrumental in achieving this goal.

Pillar 3: Case studies on producer and consumer innovations to test the framework and options for policy reform to support sustainable FNS in the EU

Case studies for livestock and fish, and fruit and vegetables will illustrate and validate sustainability metrics for assessing FNS in major current food supply chains. These will help to identify a set of innovative sustainability pathways as a contribution to defining scenarios for modeling future FNS for (i) the livestock-fish supply chain, taking a producer's perspective; and (ii) the fruit-vegetable supply chain, taking a consumer's perspective. They will also be used to assess the impacts of applying enhanced sustainability metrics at interlinked hierarchical levels of these innovative development pathways in the livestock-fish and fruit-vegetables supply chain using the SUSFANS toolbox.

Engaging with stakeholders for impact

The drivers, interests and perspectives of stakeholders and actors in the agri-food industry (including farmers and fishers, food industry, consumers, civil society, media, government, etc.), will be established, discussed and examined within an integrated and balanced framework. Foresight will be based on scenarios balancing interest from the various stakeholders and actors with an emphasis on nutritional, environmental and economic sustainability. Trade-offs and synergies between and within the various scenarios will guide policy analysis and foresight.

The framework, evidence base and tools resulting from SUSFANS will help the future development of sustainable FNS by advancing the scientific standards for metrics, models and foresight-activities that support policy-makers and other stakeholders to achieve sustainable FNS in the EU.

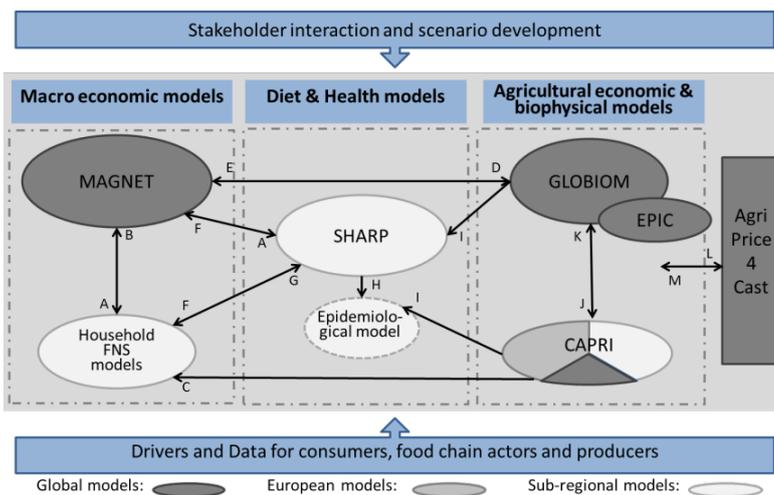


Fig. 3 SUSFANS Modelling toolbox

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