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Better link what we know to what we grow

Overview and synthesis of existing Food Systems studies and research projects in Europe

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Motivation

There is a bright future for food and for farming in Europe, poses a memo from the European Commission to the AGRIFISH Council of February 2018, if in the EU we manage to “better link what we know to what we grow”. Thinking of future food security as a systems challenge is helpful in this regard. The FOOD 2030 initiative boasts the food systems approach to research & innovation (R&I) as one that contributes to “address the long term systemic challenges to our food and nutrition systems, to secure jobs and growth in this EU sector, and make good use of new scientific and investment opportunities”, and ultimately to deliver on the UN SDGs. What is known on food systems can be more sufficiently linked to research programming and research policy, allowing impact on what and how we grow, fish, process and retail food to consumers.

Knowledge gap

What value added of a food systems approach can be demonstrated from examples in the published and grey literature?¹ There is a plethora of research initiatives and innovation actions that have addressed the links between food production and consumption at different scale of governance and granularity (global, nations, landscapes, cities, communities, etc.). How each of these initiatives and actions have given shape to a food systems approach to R&I in the EU differs widely.

Objective

The objective of this paper is to provide a state-of-the-art synthesis of relevant existing studies and research projects using a food systems approach to study Europe’s food system (as a whole) or geographical parts (countries, regions, cities) and certain aspects (for example nutrition, or environmental issues) as input to formulation of knowledge needs for EC research programs.

Approach

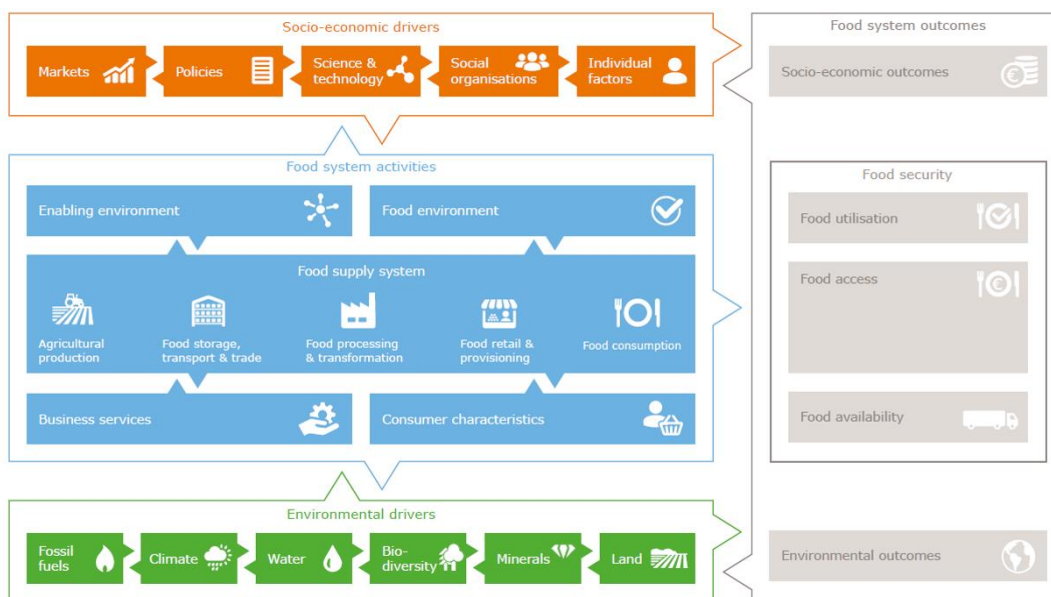
The following approach is taken:

¹ Food systems are the compounded and connected activities of primary agriculture and fisheries and the related use of input, the processing, transformation, distribution and consumption of food, and the impact of these activities on environment, social conditions and outcomes and public health (Zurek et al., 2015).

- An analytical framework on food systems R&I is developed that builds on earlier work on research and innovation under SCAR, on alternative concepts for systems thinking, and concepts for food systems approaches. The framework combines alternative “hard” and “soft” systems approaches with potential solutions it offers for addressing societal challenges on food security, and the scale at which systems approaches are potentially applied.
- The framework is developed into a landscaping tool for food systems approaches to R&I, which informs an R&I programming perspective.
- Literature search (in databases for published research and in repositories for grey literature) and additional interviews are performed to select examples of relevant R&I actions, which are plotted on the overall landscape
- Based on analysis of the selected R&I actions (desk study and expert interviews), a gap analysis is made on the extent that the food systems approach has been used to potential.
- A concluding perspective identifies how food systems may be used in different ways as a research guiding approach : it can focus on studies of Food systems and its elements and complexities and it can be an overall framework for selecting and focusing the research needs in specific parts.

Box 1. Food systems describe the linked processes in the production and use of food, as relations between (see figure):

- Food systems activities, typically organized in food value chains and shaped in a setting of input industries, knowledge and innovation systems and the food (choice) environment;
- Food systems drivers, both environmental and socioeconomic;
- The outcomes of food systems: food security and other outcomes.



(Based on UNEP 2016; Global Panel, 2016; HLPE, 2017)

Table 1. Preliminary list of food systems R&I actions to be studied.

Global initiatives engaging EU researchers and practitioners <ul style="list-style-type: none">•eg GIOPAN, IPES, EAT, UNEP SFS, UNEP IRP, WBSCD, A4NH, AGMIP,
EU wide research, framework programs <ul style="list-style-type: none">•eg ISAFRUIT, DEPIDAC, SUSFANS, TRANSMANGO
Regional (supra national, transboundary) <ul style="list-style-type: none">•eg INTERREG, RURBAN, Milan Urban Food Policy Pact
National level food research and action <ul style="list-style-type: none">•Brazil, UK, Australia, US food systems research models; Netherlands Task Force on Circularity in Food; etc..
Local level <ul style="list-style-type: none">•Milan - Lombardy region food system research; FOODMETRES, NGO networks in UK, NTH, DE engaging consumer and producer organizations in action research; etc.

Questions

1. What systems challenges related to the food system should be studied in your view?
 - Planetary health
 - Resilience (of what to what?)
 - Sustainable (and healthy) diets
 - Circular systems
 - Inclusiveness
 - Etc.

 2. Which publications (academic literature, grey literature) from food systems R&I actions and/or ongoing projects researching food systems could you suggest we include in our selection, perhaps particularly from your member states and at subnational level?
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