



ETP 'Food for Life' – Food Systems Workshop outcome

ETP Food for Life workshop on 4-5 October 2022

Introduction

The concept of the *Food System and Systems Thinking* has been present in the rationale of the ETP 'Food for Life' since the beginning of the current cycle of its development in 2016. Indeed one of the 3 overarching strategic objectives in the original [Strategic Research and Innovation Agenda \(SRIA\)](#)¹ is entitled *Create a more flexible, dynamic and sustainable food system*. However, since the production of the original SRIA, the concept of food system transformation has gained a new clarity and urgency in the EU and the wider international community (Chatham House document on Food system impacts on biodiversity loss², EU Food 2030 Strategy³ and the upcoming SFS partnership as examples⁴). Indeed, this new intensity around Food Systems prompted the ETP 'Food for Life' to include a chapter on this subject in the revised SRIA published in 2021.

The Commission itself has been consistent in pushing the debate towards systems thinking and it seems clear that this will influence all policy on food – including that related to R&I – which will be developed through the prism of systems thinking. The formal and informal communications made by the ETP have also been consistent in putting positions and advice firmly in the context of sustainable food systems. To this end the ETP 'Food for Life' hosted the 'Food Systems Workshop' with the objectives to better understand the current food system, its challenges, and the changes that need to be made to transition towards a sustainable food system. Also, the ETP wanted to ensure that the priorities already identified in the ETP SRIA truly reflect an integrated systems approach and to understand how to better produce and articulate ideas and initiatives in the context of systems thinking.

¹The ETP 'Food for Life' updated its [Strategic Research and Innovation Agenda](#) and [Implementation Action Plan](#) in 2021, and collaborated with other relevant platforms for a joint vision of the innovation of the agri-food sector, such as the joint statements with Copa-Cogeca ([link](#)) and the EU network of National Food Technology Platforms (NFTPs) ([link](#)), and the joint declaration of the ETP 'Plants for the Future', TP Organics, ETP 'Food for Life' on '[Translating the Green Deal into practice: Research and innovation opportunities for sustainable food systems \(2020\)](#)'. The ETP 'Food for Life' has also published a dedicated chapter '[Making Research and Innovation work for SMEs in the Food and Drink Sector](#)', elaborated jointly with the NFTPs and the European Federation of Food Science and Technology (EFFoST).

² T. G. Benton, C. Bieg, H. Harwatt, R. Pudasaini, L. Wellesley (2021). Food system impacts on biodiversity loss: Three levers for food system transformation in support of nature. Chatham House ([link](#)).

³ European Commission (2021). Food 2030 pathways for action - Research and innovation policy as a driver for sustainable, healthy and inclusive food systems ([link](#)).

⁴ European Commission (2022). European Partnership for Safe and Sustainable Food Systems ([link](#)).

To achieve these objectives the workshop was held with experts from the Leadership and Scientific Working Groups of the ETP 'Food for Life' platform (industries, universities and research/technology centres of all around Europe), representatives from the National Food Technology Platforms, other ETP platforms (Plants for the future, TP Organics, EATIP, FABRE), other partnerships (EIT-Food KIC), and the European Commission (DG RTD). Fundamental was the participation of Dr. John Ingram, Food Systems Programme Leader at Environmental Change Institute, University of Oxford, who provided the methodology to apply food systems thinking to the workshop, and Dr. Karen Fabbri, Deputy Head of Unit Bioeconomy & Food Systems, European Commission, who provided the policy context in the future research and innovation strategy for food systems.

Main outcomes

The first part of the workshop explored the concept of food systems and how methodologies can be applied using systems thinking to specific challenges. The first part of the workshop explored the concept of food systems and how "soft" systems methodologies can be applied to specific challenges. The approach used was based on the BATWOVE scheme and John Ingram led the participants in applying this to seven challenges of interest related to the Food System:

1. How to ensure the active involvement of consumers in development, production and distribution of foods for health and sustainability gains?
2. How to better utilize agricultural raw materials to reduce waste?
3. How to design food products to reduce the risk of obesity and Non-Communicable-Diseases?
4. How to develop sustainable packaging that keeps food fresh and safe and reduces food waste by indicating timely consumption?
5. How to reach a situation in which the population maintains a healthy bodyweight via increasing physical activity levels and consuming the right amount of the foods that they need?
6. How to make traditional Food Cultures fit into the sustainability picture? Can we keep the best parts and improve the others?
7. How to ensure Europe's high level of food safety as the system evolves?

We applied systems thinking to these current challenges, linked it to food policies and possible research and innovation activities needed to overcome the hurdles identified.

To update the ETP 'Food for Life' SRIA, using a food systems approach, we then focused on the transversal topics Water, Energy, Food waste, Competition for raw materials, Human health, Social Sustainability, and Behaviour of citizens. The following table (end of the document) summarises the top-five R&I propositions for the ETP 'Food for Life' SRIA after applying systemic thinking to each of the topic.

Next steps

The Food Systems Workshop provided specific output that has an immediate action on the current Research and Innovation programmes under development. The use of systemic thinking is also an approach that shall be implemented on the planning of future strategic research and innovation agendas.

In particular, the ETP 'Food for Life' would like to use these insights to activate the Scientific Working Groups of the platform to review the current SRIA to apply the learnings acquired and prepare a new document that could be used for the incoming programmes at EU and national level (e.g., the EU Horizon Europe 2025-2027 programme).

Examples of the most voted suggestions:

Main Topic	Suggestion for the SRIA
Waste	Interaction of key actors (producers, processors, distributors, retailers and consumers) to optimize system and reduce waste
Energy	To redefine the energy use by 2030 by new methodologies and strategies / design (e.g., algae, micro-organisms – clean energy) to reduce or improve energy consumption
Competition for raw materials	Optimise full use of biomass by connecting existing and creating new bio-economical value chains
Water	Reduction, including re-use, will be an important driver for developing new green technologies for use in industry. Applications in many sectors and industries.
Behaviour of citizens	Enabling citizens to contribute: - using open innovation methods - prosumers (players in the new food system)
Health	Consider impact of economic situation on food choices that citizens make ("poor nutrition choices").
Social Sustainability	Enhance Connection between social/consumer science and food innovation
Competition for raw materials	Connect ETPs Food and Plants + bioeconomy ETPs