

## EUROPEAN FOOD SYSTEMS IN A CHANGING WORLD

European food systems are changing, driven by complex technological and policy factors including CAP reform. These changes will affect the interactions between food availability, food access and food utilisation in uncertain ways. In addition to providing safe and healthy food, European food systems also contribute to an increasing number of goals including environmental functions and landscape and society objectives. This Forward Look, which is supported by both ESF and COST, will focus on how the changes in Europe's food systems drivers, in the context of balancing the varied goals, will affect these interactions.

### Why are European food systems changing?

Recent decades have seen large changes in the food systems which underpin European food security. This has been due to major changes in technological factors, e.g. productivity rise per hectare and per man-hour, and improved preservation and packaging techniques; by changes in consumption patterns due to for example increased wealth and cultural mixing; and by changes in preferences, e.g. changes in life-style and concerns about animal welfare and the environment. European food systems will continue to change because of further changes in the nature and the magnitude of these "drivers". Key factors include, for instance, an ageing population, increased demand for healthy food and the obesity issue, changes in CAP and WTO arrangements, and changes in climate and other environmental factors such as land degradation. Uncertainties surround many of these changes, especially those related to consumer preferences of e.g. local versus non-local food; the influence of stakeholders in the food chain and the increasing "power" of big food retailers; and environmental conditions.

### What are food systems?

Food systems are a set of dynamic interactions between and within the biogeophysical and human environments and include a number of activities which lead to a number of associated outcomes. Food security is diminished when food systems are disrupted or stressed. Food system activities include producing and storing food; processing, packaging and distributing food; and retailing and consuming food. Outcomes include some which contribute to food security, and others which relate to environmental and other social welfare concerns. Both the activities and the outcomes are affected by the range of interacting drivers which in turn are modified by the activities and outcomes (figure 1).

Food systems are often only thought of in terms of the activities ("plough to plate") but including the outcomes as part of the food system concept provides an explicit analytical lens for understanding food security, the principal objective of the food system, and the tradeoffs between this and other societal interests.

### How can this Forward Look develop research to assist formulating European policy responses?

Given the many uncertainties setting the best policy with respect to the future of European food systems is difficult. Coupling food system concepts with a scenarios

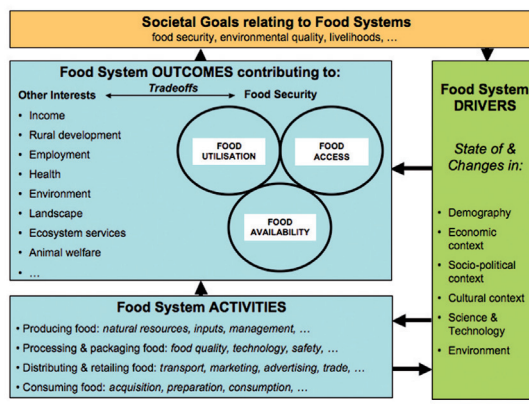


Figure 1: Food systems activities (with example key determinants) and outcomes in relation to drivers and societal goals. (Derived from Ericksen PJ (submitted) and GECAFS Report No. 2)

approach will help by analysing implications of policy and management options within a set of coherent, internally-consistent storylines of possible futures of European food systems. This Forward Look will develop appropriate scenarios based on the desire to produce safe foods in a sustainable and equitable way over a medium-term perspective (25-40 years). Developing such scenarios requires both the involvement of many scientific disciplines and also that of the range of different stakeholders in the food chain. The scenarios activity will raise awareness within Europe about food security and other issues of societal concern and help structure the debate between science and policy in the food area. The Forward Look will also identify key gaps in understanding that need to be addressed with new research programmes, and thereby help to develop a research agenda for the coming decade to support food policy formulation at the European, national and local levels.

### ESF Forward Looks

ESF Forward Looks provide medium to long-term authoritative visions on science perspectives in broad areas of research bringing together ESF Member Organisations, other research organisations and the scientific community in creative interaction. Forward Look reports and other outputs such as ESF Policy Briefings assist policy makers and researchers in defining optimal research agendas and in setting priorities. Quality assurance mechanisms, based on peer review where appropriate, are applied at every stage of the development and delivery of a Forward Look to ensure its credibility and impact.

## Timeline of activities

- **March 2006 - Brussels, Belgium:**  
**Kick-off meeting**
- **June 2006 - Jouy-en-Josas, France:**  
**Meeting: Roundtables with stakeholders.**  
Aim: To arrive at a better understanding of European Food System, and current challenges different actors/stakeholders face.
- **October 2006 - Wageningen, Netherlands:**  
**Workshop 1 - Current food system activities**  
Aim: To identify those food system activities and components to focus on, and to outline the key choices each set of activity faces. To initiate the scenario exercise by identifying focal question (and maybe key uncertainties).
- **November/December 2006 - Background paper 'Review of current European scenarios'**  
Aim: To provide a basis and a reference for scenario development and analysis within this Forward Look.
- **February/June 2007 -**  
**Three papers 'Food Systems in Europe'**  
Aim: To describe the key food systems activities and their interactions, both within current and plausible future contexts from the perspective of one set of food systems activities.
- **March/May 2007 -**  
**Developing scenarios for European food systems**  
Aim: To develop a set of scenarios (based on key uncertainties) which provide a backdrop for discussion on future food system interactions.
- **May 2007, Parma, Italy -**  
**Workshop 2: Future food systems**  
Aim: Future food systems will be discussed based on scenario exercise and description of current food systems and interactions assess.
- **November 2007 - Final Conference and Proceedings**  
Aim: To conclude project, initiate further scientific debate, set the scene for a final report.

## Organising Committee

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This activity involves several ESF Standing Committees: Life, Earth and Environmental Sciences (LESC); Medical Sciences (EMRC); Humanities (SCH) and Social Sciences (SCSS).

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For the latest information on this Forward Look consult the following website:

**[www.esf.org/food](http://www.esf.org/food)**