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# European Food Systems in a Changing World

An ESF / COST Forward Look

Co-Chairs:

Prof. Dr. Ir. Rudy Rabbinge, NL

Prof. Dr. Peter Raspor, SI

*John Ingram*  
*NERC-CEH, UK*



# European Science Foundation

## “Forward Looks”

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### **Enable the European scientific community to:**

- develop medium- to long-term views and analyses of future research developments in multidisciplinary topics
- interact with the policy makers from European institutions and ESF Member Organisations

### **So as to:**

- identify key areas for European research over the next decade or so.



# European Science Foundation

## “Forward Looks”

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### **Provide funding for:**

- a series of planning meetings, workshops
- associated analyses and activities to set the FL in context
- FL coordination
- final conference to report outcomes

over a ca. 18 month timeframe (mid 2006 – end 2007)



# European food systems are changing



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- Cultural mixing (varied diets)
  - Consumer pressures (e.g. food safety, animal welfare)
  - Food processing & technologies (convenience)
  - Decline in rural economy & agricultural sector
  - Increased governmental regulations



# Food systems include a number of Activities



- Food producing/storing  
*natural resources, inputs, management, quality, ...*
- Food processing/packaging/distributing  
*food quality, technology, safety, transport, ...*
- Food retailing/consuming  
*marketing, advertising, trade, preparation, eating, ...*



# Food systems Activities give rise to a number of Outcomes

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- Food security  
*availability, access, utilisation*
- Employment
- Health
- Social values
- Environmental conditions
- etc.

# Societal Goals relating to Food Systems

food security, environmental quality, livelihoods, ...

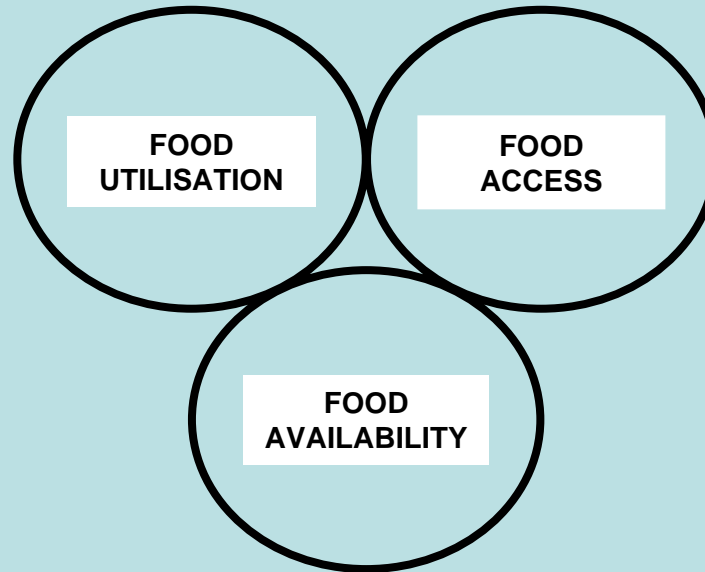
## Food System OUTCOMES contributing to:

Other Interests

*Tradeoffs*

Food Security

- Income
- Rural development
- Employment
- Health
- Environment
- Landscape
- Ecosystem services
- Animal welfare
- ...



## Food System DRIVERS

*State of & Changes in:*

- Demography
- Economic context
- Socio-political context
- Cultural context
- Science & Technology
- Environment

## Food System ACTIVITIES

- Producing food: *natural resources, inputs, management, ...*
- Processing, packaging & distributing food: *food quality, technology, safety, transport, ...*
- Retailing food & consuming food: *marketing, advertising, trade, acquiring, preparing, eating, ...*



# Recent megatrends in European agriculture

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- Increased productivity per ha, per man-hour, ...
- Food chain approaches (plough-to-plate)
- Knowledge-based production systems
- Increased industrial character of the food chain
- Increased diversification of goals in agricultural sector
- Decreased influence from agricultural sector



# Two critical questions for policy, research and society at large



## Question 1:

How will the drivers and interactions between them change?

### Food System DRIVERS

*State of & Changes in:*

- Demography
- Economic context
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- Environment



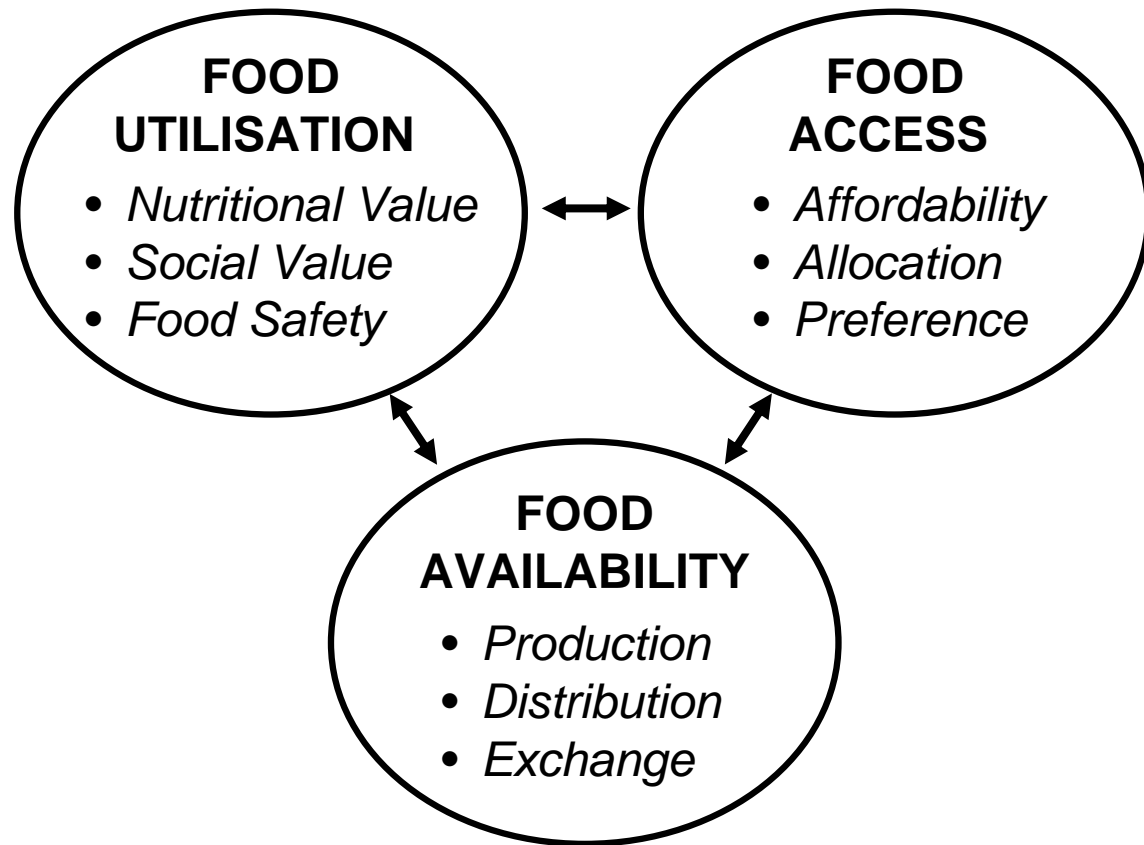
# Two critical questions for policy, research and society at large



## Question 2:

How will these changes affect the interactions and conflicts between the food security components:

- *availability*
- *access*
- *utilisation*





# Scenario-based approach



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- Take a long-term (25-40 year) perspective
  - Consider interactions between key drivers
  - Determine food security outcomes for different scenarios
  - Base on existing European-scale forward looking studies



# Forward Look Activities



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- Initial workshop (Jun 06, INRA, Paris)
  - Review recent European scenarios wrt FL objectives
  - Workshop 1: Design FS scenarios & ID current interactions (Oct 06)
    - What are the key drivers of each Activity?
    - What are the main challenges facing the set of Food System Actors?
    - Initiate 3 papers on Food System Activities (*status, choices* and *food security implications*) under current conditions
  - Develop scenarios
  - Workshop 2: Review FS scenarios & assess how interactions change (spring 07)
    - Finalise scenarios
    - Develop FS Activities papers by adding future context wrt scenarios
  - Final Conference and Proceedings (late 07)



# Target groups for Forward Look

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- European-wide agencies and bodies
- EEA
- Eureka
- ESF-member organisations
- Science managers
- Editors of leading journals
- Food industry & business



# Products from Forward Look



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1. “Traditional” science products (publications)
  2. Set of prototype European scenarios specific for food issues
  3. Awareness raising for policy on food systems (policy agenda)
  4. Research agenda for next ~10 yrs