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Community Research

Young Train Seminar 2 Girona, Spain

Towards FP7 -

***Food, Agriculture and
Biotechnology***

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FP7 2007 - 2013

***Cooperation* – Collaborative research**

***Ideas* – Frontier Research**

***People* – Human Potential**

***Capacities* – Research Capacity**



JRC (non-nuclear)

JRC (nuclear)

Euratom



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Cooperation – Collaborative research

9 Thematic Priorities

1. Health
2. **Food, agriculture and biotechnology**
3. Information and communication technologies
4. Nanosciences, nanotechnologies, materials and new production technologies
5. Energy
6. Environment (including climate change)
7. Transport (including aeronautics)
8. Socio-economic sciences and the humanities
9. Security and space

+ Euratom: Fusion energy research, nuclear fission and radiation protection





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Objectives

- Build a European Knowledge-Based Bio-Economy (KBBE)
- Respond to social and economic challenges:
 - High quality food and sustainable food production
 - Food-related disorders (cardiovascular, obesity ...)
 - Infectious animal diseases and zoonoses
 - Sustainable agriculture/fishery and climate change
 - Clean biomaterials from renewable bio-resources
- Involve all stakeholders (incl. industry) in research – Technology Platforms
- Support CAP and CFP
- Respond quickly to emerging research needs





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Rationale

- ✓ Biotechnology and food companies / SMEs need to be competitive on the world market ('European Strategy on Life Sciences and Biotechnology')
- ✓ Society demands safer and healthier food
- ✓ Renewable resources and biomass for non-food applications helps reducing dependence on hydrocarbon-based economy
- ✓ Society demands sustainable and eco-efficient production methods in agriculture/fishery/forestry
- ✓ International cooperation ensures optimal exploitation of resources and application of results





2. Food, Agriculture and Biotechnology

**Sustainable production and management of biological resources
from land, forest, and aquatic environments**

“Fork to farm”: Food, health and well being

**Life sciences and biotechnology for sustainable
non-food products and processes**





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Activity 1:

Sustainable production and management of biological resources from land, forest and aquatic environments

1. Enabling research ('omics', converging technologies, biodiversity) for micro-organism, plants and animals
2. Sustainable, competitive and multifunctional agriculture, forestry, aquaculture and rural development
3. Animal welfare, breeding and production
4. Policy tools for agriculture and rural development





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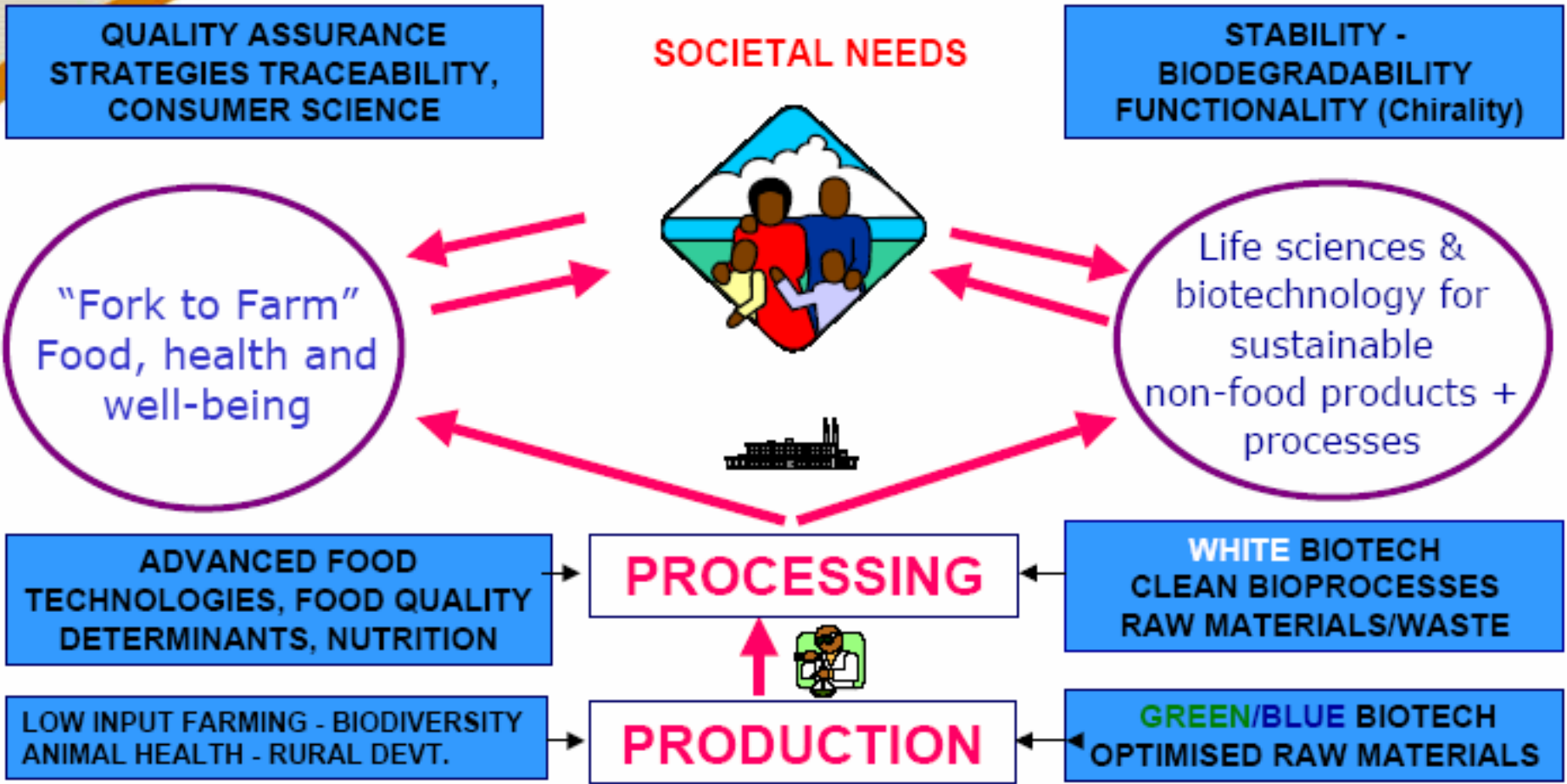
Activity 2:

“Fork to farm”- Food, health and well being

1. Consumer, societal, industrial and health aspects of food and feed
2. Nutrition, diet related diseases and disorders
3. Innovative food and feed processing
4. Improved quality and safety of food, beverage and feed
5. Total food chain concept



THE EUROPEAN KNOWLEDGE-BASED BIOECONOMY



Sustainable production and management of biological resources from land, forest, and aquatic environments




Activity 2: “Fork to farm” - Food, health and well being

1. Consumer, societal, industrial and health aspects of food and feed
 - Consumer behaviour as competitiveness factor
 - Impact of food on health and well-being
 - Consumer attitudes towards food
 - Understanding societal trends
 - Determinants of food choice
 - Consumer access to food



Activity 2: “Fork to farm”- Food, health and well being

2. Nutrition, diet related diseases and disorders

- Dietary factors and habits in relation to dietary diseases and disorders (e.g. obesity)
- Development and application of nutrigenomics
- Interaction between nutrition, physio-logical and psychological functions
- Improve processed food and develop novel food, dietetic foods, foods with nutritional and health claims



Activity 2: “Fork to farm”- Food, health and well being

3. Innovative food and feed processing

- Key process technologies for functional food
- Processing and packaging
- Efficient management of by-products, waste and energy
- Sustainable technologies for animal feed processing and quality control





Activity 2:

“Fork to farm”- Food, health and well being

4. Improved quality and safety of food, beverage and feed
 - Microbial ecology and food safety
 - Methods and models for the integrity of the food and feed supply chain
 - New detection methods
 - Technologies and tools for risk assessment, management and communication





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Activity 3:

Life sciences and biotechnology for sustainable non-food products and processes

1. Improved crops, feed-stocks, marine products and biomass for energy, environment, and high added value industrial products; novel farming systems
2. Bio-catalysis; new bio-refinery concepts and other bioprocesses
3. Forestry and forest based products and processes
4. Environmental remediation and cleaner processing



Food, agriculture and biotechnology research: What's new!

- ✓ Pillar 2 "Food, health and well-being" ensures continuity of FP6 "Food quality and safety" research
- ✓ **New:** Pillar 1 "Sustainable production and management of biological resources" and pillar 3 "Life sciences and biotech for sustainable non-food products and processes"
- ✓ Some topics under pillar 1&3 partly financed in FP4 and FP5 (BIOTECH, FAIR, QoL, etc.), but FP6 efforts scattered and not of sufficient critical mass (some activities under materials, energy and environment) providing no synergies
- ✓ Technology platforms in the area of plant biotechnology, animal breeding, global animal health, forestry, food and industrial biotechnology



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Food, agriculture and biotechnology research: Newly integrated activities

New activities within the themes:

- ✓ Integration of new and emerging science and technologies (NEST)
- ✓ Support to policy development (CAP, CPF, public health, food safety, animal health, ...)
- ✓ International co-operation
- ✓ ERA-Nets, ERA-Nets+
... to be defined on the level of the specific programme or work-programme





The instruments (1)

- 1) To support actions which are implemented on the basis of calls for proposals:
 - Collaborative projects
 - Networks of Excellence
 - Coordination/support actions
 - ERA-Nets, ERA-Nets +
 - Individual projects
 - Fellowships
 - Research projects for third parties (i.a. SMEs)





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The instruments (2)

2) To support actions implemented directly on the basis of decisions by the Council and the European Parliament:

- Art. 169
- Joint Technology Initiatives
- Development of new infrastructures of European interest





Ideas – Frontier Research

ERC – European Research Council

Commission

- Approval of work programme, as defined by the Scientific Council
- Instruction to implement work programme
- Approval of annual implementation report
- Information to programme committee

Scientific Council*

- Preparation of work programme
- **Set up of peer review: pool of reviewers, nomination of review panels, evaluation guidelines**
- **Oversight of the evaluation procedure**
- Annual scientific report

Externalised tasks**

- Information and support to applicants
- Reception / eligibility of proposals
- **Organisation and execution of evaluation**
- Selection decision
- Scientific and financial follow-up of contracts
- Annual implementation report

* Created by Commission decision

** Under the responsibility of the Commission





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People – Human Potential

Initial training of researchers

Marie Curie Networks

Life-long training and career development

Individual Fellowships

Co-financing of regional/national/international programmes

Industry-academia pathways and partnerships

Industry-Academia Scheme

International dimension

Outgoing International Fellowships; Incoming International Fellowships

International Cooperation Scheme; Reintegration grants

Specific actions

Excellence awards





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***Capacities* – Research Capacity**

1. Research Infrastructures

2. Research for the benefit of SMEs

3. Regions of Knowledge

4. Research Potential

5. Science in Society

6. Activities of International Cooperation










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What's new?

Main new elements compared to FP6:

-  Annual budget doubled (EUR 5 billion ► 10 billion)
-  Basic research (~ EUR 1.5 billion per year)
-  Simplification and rationalisation of procedures
-  Logistical and administrative tasks transferred to external structures
-  International cooperation: specific actions under cooperation programme, within the thematic priorities.





Roadmap for FP7

2005

6 April	Commission	- Adoption of FP7 proposals
21 Sept.	Commission	- Proposals on SPs
November	Commission	- Rules for participation and dissemination
November	Commission	- Proposals under Articles 169 and/or 171
December	EP	- 1st reading on EC FP. Opinion on Euratom FP

2006

January	Council	- Common position on EC FP
March	EP	- 2 nd reading
April	EP	- Opinion on the Specific Programmes
June	Council	- Adoption of FP and Rules (earliest)
July	Council and EP	- Adoption of FP and Rules for participation
July	Council	- Adoption of the SPs
Oct	Commission	- Adoption of Work programmes and necessary materials
Nov	Commission	- Publication of 1 st calls





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***European strategies for
international cooperation***





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International Cooperation

Third Countries:

Industrialised countries

Associated countries

International Cooperation **Partner Countries:**

- **Countries neighbouring the EU** (Mediterranean Countries; UA, BY and MD; Caucasian Countries Western Balkans)
- **Developing countries** (ACP, ASIA, Latin America)
- **Emerging economies** (China, India, Brazil, Russia, South Africa,...)



EU & FP-Associated

- 25 Member States
- FP6-Associated
Candidate Countries
(Bulgaria, Croatia, Romania,
Turkey)
- **Other FP6-Associated
States** (Iceland, Israel,
Lichtenstein, Norway,
Switzerland)

Third Countries





International cooperation under FP7 *Cooperation – Collaborative research*

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International cooperation will be implemented directly in the “*Co-operation- Collaborative Research*” Programme, in each thematic area and across themes through:

- The opening of all activities carried out in the thematic areas
- Specific co-operation actions in each thematic area dedicated to third countries in the case of mutual interest in co-operating on particular topics.





International cooperation under FP7 *Cooperation – Collaborative research*

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Opening of all themes to third countries

- Build S&T partnerships based on mutual interest
- Enhance Europe's competitiveness
- Contribute to implementing EU policies and international commitments





International cooperation under FP7 *Cooperation – Collaborative research*

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Specific International Cooperation actions in themes

- Early identification of problems in other parts of the world before these affect Europe
- Cooperation with developing countries taking into account their needs and the Millennium Development Goals
- Multilateral cooperation for global challenges
- Priority partners: bi-regional dialogue, bilateral S&T agreement, neighbour countries, emerging economies, developing countries





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International Cooperation in IDEAS

- Aim to integrate the Community into the world-wide research community
- Open to INCO partner countries on the basis of mutual benefit or according to relevant concluded agreements
- Participation of INCO partner countries to be justified on basis of added scientific value





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International Cooperation in PEOPLE

- International outgoing fellowships
- International incoming fellowships
- Partnerships to support exchange of researchers
- Support of common initiatives between European organizations and countries with S&T agreements
- Measures to counter the risk of 'brain drain' from developing countries/emerging economies





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Capacities – International Cooperation

Policy Dialogue

S&T Cooperation Partnerships

Coordination of National Policies & Activities





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More information

CORDIS:

- information space devoted to European research and development (R&D) and innovation activities
- To facilitate participation in European research (FPs)
- www.cordis.lu/
- www.cordis.lu/food/
- www.cordis.lu/food/inco.htm
- http://cordis.europa.eu.int/inco/home_en.html

General

Food

INCO and Food

new INCO portal

EUROPA:

- information space of the European Commission
- <http://europa.eu.int/comm/research/fp6/> FP6
- www.europa.eu.int/comm/research/conferences/2005/kbb/
Conference “The Knowledge-based bio-economy”, Brussels, Sept. 2005

Data based evaluators :

<https://emmfp6.cordis.lu/index.cfm?fuseaction=wel.welcome>





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Latest budget

- Based on the Council conclusions of December 2005 and pending formal agreement of Parliament and Council
- Budget of € 54,244 billion in current prices, i.e. including inflation
- Proposed breakdown shows a budget of €1.935 billion for "Food, Agriculture and Biotechnology"

