

*The 7th Research Framework Programme in the area "Food, Agriculture, Fisheries and Biotechnology"*



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**FP7 2007 – 2013**

Specific Programmes


€ M \*

<b>Cooperation – Collaborative research</b>	32.365
<b>Ideas – Frontier Research</b>	7.460
<b>People – Human Potential</b>	4.728
<b>Capacities – Research Capacity</b>	4.217
+	
<b>JRC (non-nuclear)</b>	
<b>JRC (nuclear)</b>	
<b>Euratom</b>	

\* Council's agreement of July 2006


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**FP7: What's new?**

**Main new elements compared to FP6:**

- ✚ Average annual budget increased (EUR 5 billion ► 7.5 billion)
- ✚ Duration increased from 4 to 7 years
- ✚ Industry-driven (ETPs, JTIs)
- ✚ New structure: 4 Specific Programmes: Co-operation, Ideas, People, Capacities
- ✚ Integration of horizontal activities in Co-operation Programme
- ✚ European Research Council and fundamental sciences (~ EUR 1 billion per year)
- ✚ Risk-Sharing finance facility (fostering private investment in research)
- ✚ Simplification, Flexible Funding Schemes



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**Cooperation – Collaborative research**

*10 Themes*

		€ M *
1.	<b>Health</b>	6.050
2.	<b>Food, Agriculture, Fisheries and Biotechnology</b>	1.935
3.	<b>Information and Communication Technologies</b>	9.110
4.	<b>Nanosciences, Nanotechnologies, Materials and new Production Technologies</b>	3.500
5.	<b>Energy</b>	2.300
6.	<b>Environment (including Climate Change)</b>	1.900
7.	<b>Transport (including Aeronautics)</b>	4.180
8.	<b>Socio-Economic Sciences and the Humanities</b>	610
9.	<b>Space</b>	1.430
10.	<b>Security</b>	1.350

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## The Knowledge-based bio-economy



*As citizens of Planet Earth, it is not surprising that we turn to Mother Earth - to Life itself – to help our economies to develop in a way which should not just enhance our quality of life, but also maintain it for our future generations....*

**Janez Potočnik,**  
EU Commissioner for Research



Transforming **life sciences** knowledge into **new, sustainable, eco-efficient and competitive** products



## Bio-economy

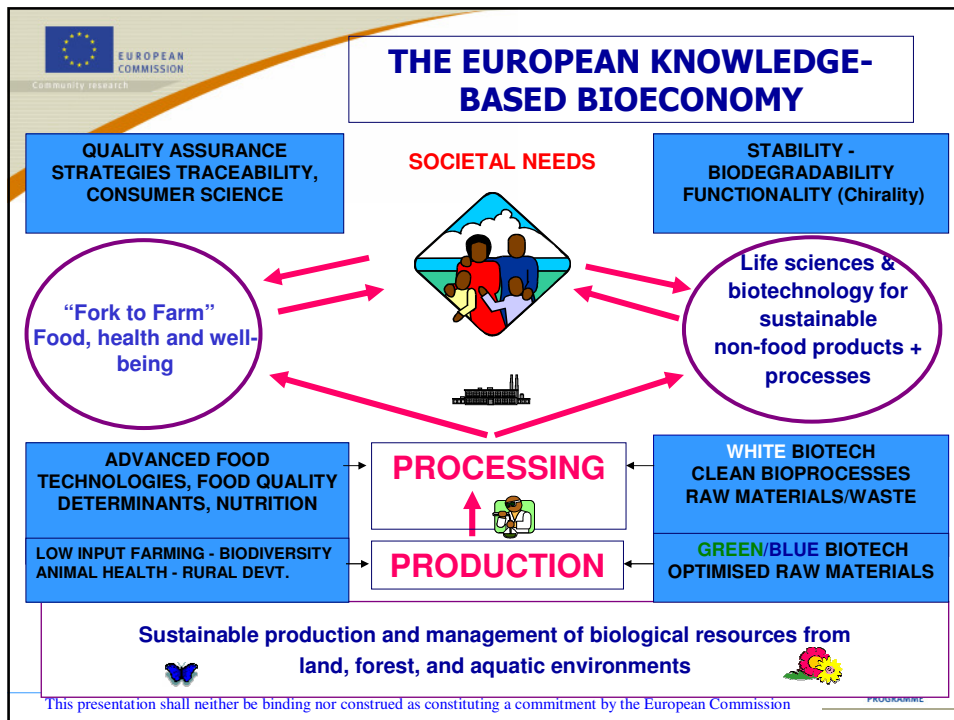
The term 'bio-economy' covers all industries and economical sectors that produce, utilize or manage biological resources.

The European bio-economy has an annual turnover of more than 1500 billion € and employs 22 million people.

Sector	Annual turnover (billions of €)	Employment (millions)	Source
Food & Beverages	850	4.1	CIAA
Agriculture	210	15	COPA-COGECA
Fisheries	8	0.5	FAO
Paper, Leather, Pulp, etc.	400	0.3 direct (4.0 indirect)	CEPI
Forestry, Wood	150	2.7	CEI-BOIS
Industrial Biotech	50		McKinsey
total	1618	22.1	

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SEVENTH FRAMEWORK PROGRAMME



- Food, Agriculture, Fisheries and Biotechnology: Rationale**
- 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
  - Support CAP and CFP
  - Respond quickly to emerging research needs
- 4 Fs: Food, Fiber, Fuel and Feed**
- 
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## 2. Food, Agriculture, Fisheries and Biotechnology

### 2.1.

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

### 2.2.

“Fork to farm”: Food (including sea-food), health and well being

### 2.3.

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

## Food, agriculture, fisheries and biotechnology research:

### What's 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 and their input in the area of plant biotechnology, forestry, industrial biotechnology, animal breeding, global animal health, and food
- Pillar 2 “Food, health and well-being” ensures continuity of FP6 “Food quality and safety” research

## Food, agriculture, fisheries and biotechnology research:

### **New in FP 7: Some FP 6 activities outside the Thematic Priorities will be integrated in the FP 7 Themes !**

such as

- Integration of new and emerging science and technologies (NEST)
- Support to policy development (CAP, CFP, public health, food safety, animal health, ...)
- International co-operation (SICA)
- ERA-Nets, ERA-Nets +

... to be defined on the level of the specific programme or  
workprogramme

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## Food, agriculture, fisheries and biotechnology research:

### **Clear need to prioritise !**

#### **“More with less”**

- Theme 2 FP7 “Food, Agriculture, Biotechnology” has much broader scope than priority 5 “Food Quality&Safety” of FP6 (added activity 3 on biotech products and processes for non-food applications)
- Research to support policies, international cooperation and coordination of national research is integrated into the themes
- Budget for first calls of theme 2 - FP7 comparable (or lower) than for priority 5 - FP6

#### **Need to prioritise along the following criteria:**

- New areas/topics not (little) covered in previous FPs.
- Continue/follow-up on successful EU research activities in order to achieve maximum impact.
- Preparatory actions for identifying priority topics/activity areas for future calls, i.e. analysis of certain research/technology options for addressing specific goals; in cooperation with TPs and ERA-NETs

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## Food, agriculture, fisheries and biotechnology research: Borderline with other FP7 themes

- Enabling/systems biology research on plants, animals and microbes complementary to systems biology for human health applications in theme 1.
- Complementary research relating to the management/conservation of natural resources and biodiversity is addressed under the “Environment including Climate Change” theme 6.
- Demonstration of bioprocesses for biomass conversion to energy/materials under this priority – up-scaling and complete process design under materials and energy themes (themes 4 and 5).

## Activity 1: Sustainable production and management of biological resources from land, forest and aquatic environments(a)

- Enabling research (‘omics’, converging technologies, bio-informatics, biodiversity) for micro-organism, plants and animals
- Competitive, sustainable and multifunctional agriculture, forestry, fishery and aquaculture with special emphasis on low-input and organic production systems; sustainable pest and weed management tools and techniques



## Activity 1:

### Sustainable production and management of biological resources from land, forest and aquatic environments(b)

- Animal health production and **welfare**; animal diseases incl. zoonoses; **improved understanding of animal physiology and behaviour**
- Marine resources, fishery, aquaculture
- Development of policy strategies for knowledge based bio-economy, agriculture, fishery as well as rural and coastal areas; **comparative investigations of different farming systems**



## Our contribution in OF research

### 1st call

#### Cost of different standard setting and certification systems for organic food and farming (Call 1)

**KBBE-2007-1-4-07: Costs of different standard setting and certification systems for organic food and farming Call: FP7-KBBE-2007-1**

Research should analyse the costs, and thus the effectiveness, of different standard setting procedures and certification systems as a basis for optimisation of the current EU certification system (Reg. EEC 2092/91). The task is to quantify for selected products all relevant expenditure and transaction cost for certification along the entire supply chain for the actors involved: farm, processing, wholesaling, retail and import level as well as the administration level and recognition of the various standards, logos and trademarks by consumers in various regions of the EU. The project should conclude in recommendations to increase the effectiveness and the efficiency of organic certification for the EU Commission, national competent authorities and private actors in organic food and farming.

**Funding scheme:** Small collaborative project

**Expected impact:** Efficient certification systems for organic farming with lower costs, contribute to better regulation and will increase the competitiveness of the European organic farming sector.



## Our contribution in OF research

2<sup>nd</sup> call

### Improving animal health, product quality and performance of organic and low-input livestock systems through integration of breeding and innovative management techniques (Call 2A)

**KBBE-2007-1-3-07: Improving animal health, product quality and performance of organic and low-input livestock systems through integration of breeding and innovative management techniques Call: FP7-KBBE-2007-2A**

In this project, different breeding concepts will be analysed for their success in achieving specific breeding aims (health condition, tolerance to stress, product quality, etc) needed for organic and low-input rearing of livestock. Prioritising farm-level research, indicators will be developed and tested in different breeding programmes, integrating management and feeding practices in different macro-climatic regions including ICPC, with the purpose to produce high quality and differentiated food products. Multicriteria evaluation of systems shall be considered through experimental/model approaches and integrating innovative management techniques. Thus, the project will assist in reducing the gap between the genetic potential of livestock and their site- and environment- specific performance. The work may address cattle, pig, small ruminant and/or poultry production systems, which, in addition to food production, may also be desirable for tourism, rural development and landscape management.

**Funding scheme:** Large collaborative project

**Expected impact:** The project will stimulate organic and "low-input" livestock production by enabling logical, regionally-adapted breeding strategies to be developed that are compatible with sustainable production, high product quality and organic principles.

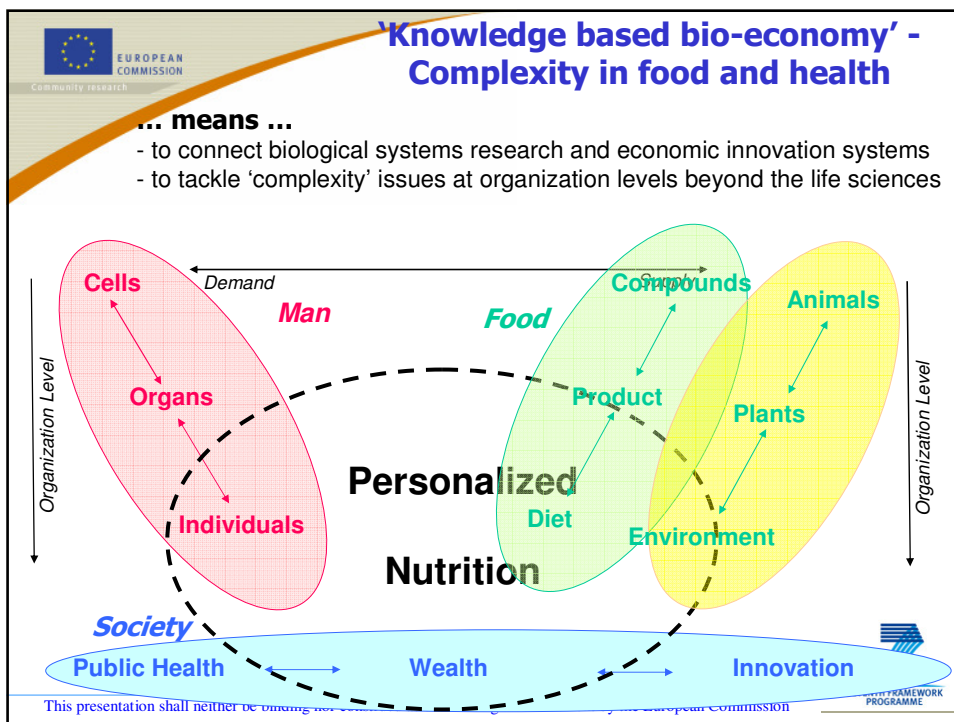
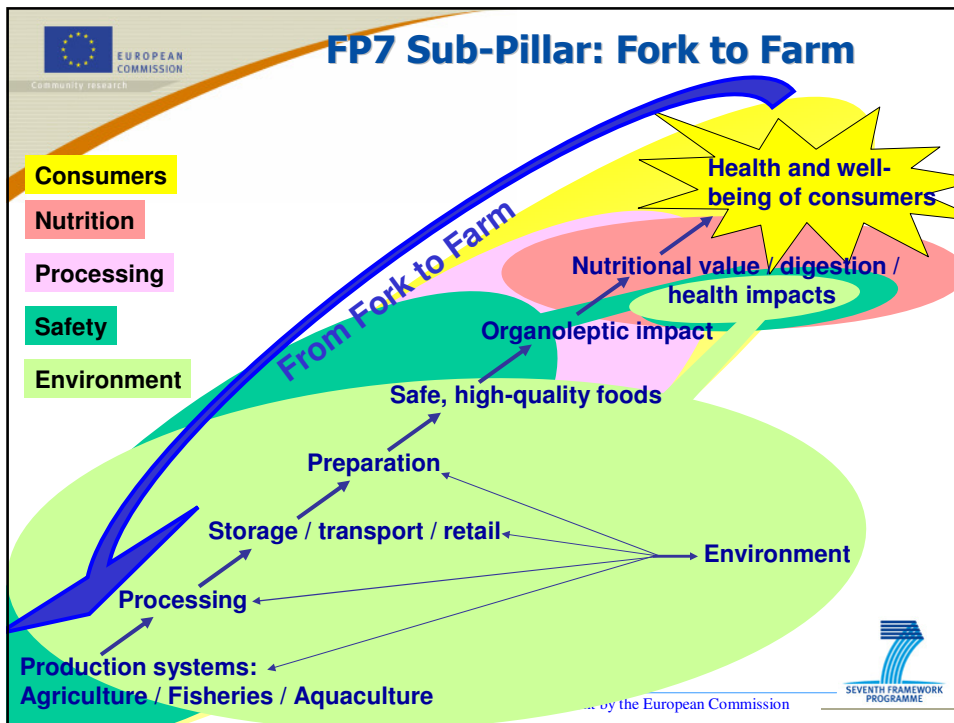


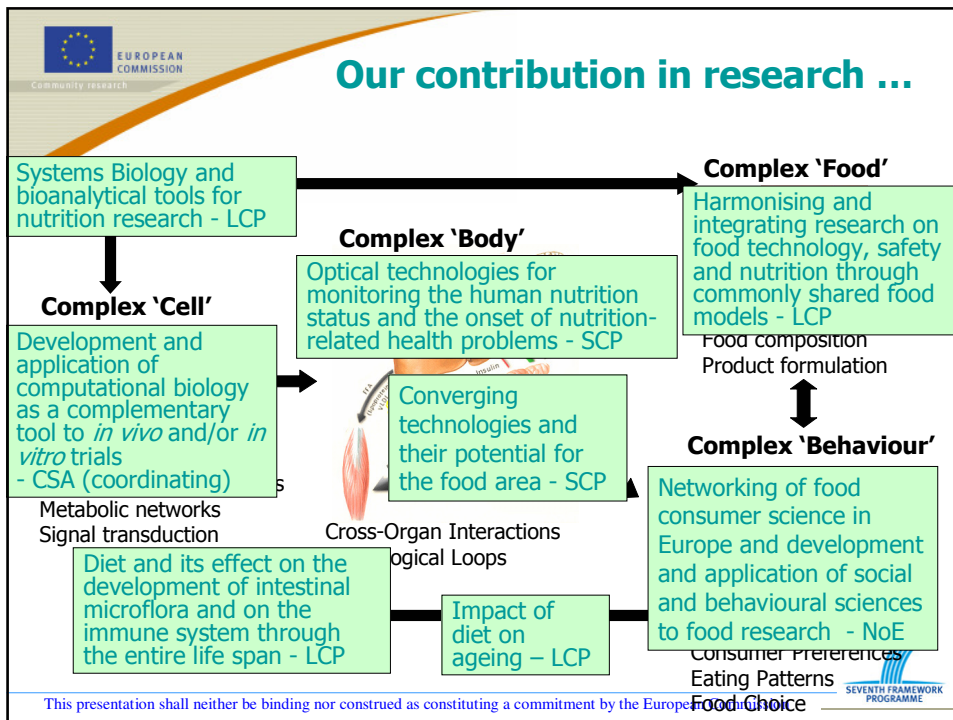
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## Activity 2: "Fork to farm"- Food (including sea-food), health and well being

- Consumer, societal, industrial and health aspects of food and feed; consumer perception and attitudes towards food, including **traditional food**, understanding societal and cultural trends
- Nutrition, diet related diseases and disorders
- Innovative food and feed processing
- Improved **quality** and safety of food, beverage and feed
- Total food chain concept





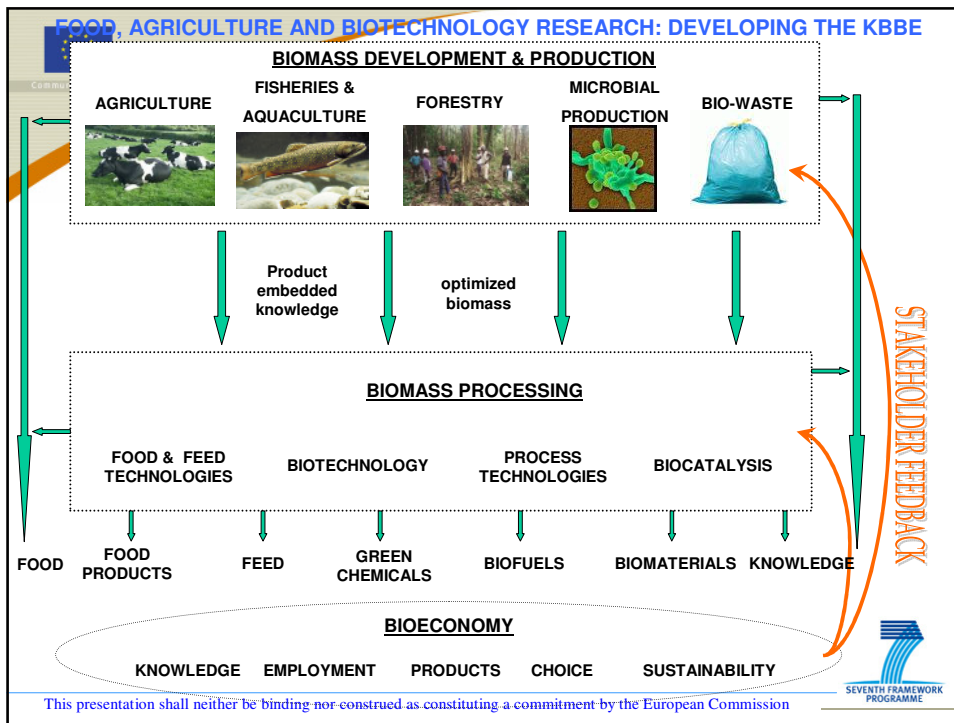




**Activity 3:**  
**Life sciences, biotechnology and biochemistry for sustainable non-food products and processes**

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



**Financial Perspectives**

Non-linear budget evolution

2007	2008	2009	2010	2011	2012	2013	
192	210	233	262	299	333	371	m€, appr.

'Method of Rolling Loan'

	Budget 2007	Budget 2008	Budget 2009
Large projects; NoEs (two stage – except 2007 !)	Call 1	Call 2A	Call 3A
Small CPs/CSAs (one stage)	Call 1	Call 2B	Call 3B

.....etc.

Workprogramme 2007
Workprogramme 2008
Workprogramme 2009

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SEVENTH FRAMEWORK PROGRAMME

## Theme 2-specific requirements and some general aspects of importance

- Specific participation rule for Specific International Co-operation Actions (SICAs):  
2 + 2 (or more if specified – may also target countries or regions)
- Funding thresholds (to be regarded as an eligibility criterion !):  
small Collaborative Projects: up to 3 M€  
large Collaborative Projects, Networks of Excellence: between 3 and 6 M€  
Coordination and Support Actions: up to 1 M€
- One project per topic is funded
- Footnotes on complementary topics open in other 'Themes'
- Indicative topics of the next work programme outlined
- Participation of international organisations and participants from third countries possible (and encouraged) in addition to minima

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## Technology Platforms: Central Concept


Framework to unite stakeholders around:


- ✓ A common “VISION” for the technology concerned.
- ✓ Mobilisation of a CRITICAL MASS of research and innovation effort.
- ✓ Definition of a STRATEGIC RESEARCH AGENDA.
- ✓ Design of Implementation Action Plan.

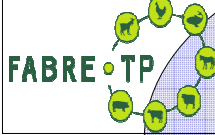
*Stakeholders, led by industry, getting together to define a Strategic Research Agenda on a number of strategically important issues with high societal relevance where achieving Europe's future growth, competitiveness and sustainability objectives is dependent upon major research and technological advances in the medium to long term.*


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 EUROPEAN COMMISSION  
 Community research

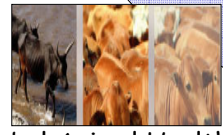

  
<http://etp.ciaa.be>



  
[www.suschem.org](http://www.suschem.org)  
 Industrial biotechnology


  
 Farm Animal Breeding  
[www.fabretp.org](http://www.fabretp.org)



  
 European Biofuels TP


  
 Forest-Based Sector  
 Technology Platform  
[www.forestplatform.org](http://www.forestplatform.org)



  
 ETP  
 Global Animal Health  
[www.ifah.be/Europe/EUPlatform/Platform.htm](http://www.ifah.be/Europe/EUPlatform/Platform.htm)


  
 ETP  
 Plants for the Future  
[www.epsoweb.org](http://www.epsoweb.org)

**Knowledge Based Bio-Economy**



  
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**ERA Nets in the KBBE sector**

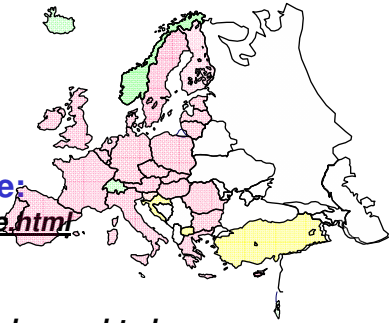
ACRONYM	TITLE
<b>ERA-PG</b>	European Research Area - Plant Genomics
<b>SAFEFOODERA</b>	Food Safety - Forming a European platform for protecting consumers against health risks
<b>ERA-IB</b>	Towards an ERA in Industrial Biotechnology
<b>EUPHRESKO</b>	Coordination of European Phytosanitary (Statutory Plant Health) Research
<b>EUROTRANSBIO</b>	EUROpean network of TRANS-national collaborative RTD for SME's projects in the field of BIOtechnology
<b>WOODWISDOM-NET</b>	Networking and integration of National programmes in the area of wood material science and engineering
<b>ERA-SAGE</b>	European Research on Societal Aspects of Genomics
<b>CORE-ORGANIC</b>	Coordination of European Transnational Research in Organic Food and Farming
<b>ARD</b>	The Agricultural Research for Development (ARD) dimension of the European Research Area (ERA)
<b>ERASysBio</b>	Towards a European Research Area for Systems Biology - A Transnational Funding Initiative to Support the Convergence of Life Sciences with Information Technology & Systems Sciences


  
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## Further information

- **EU research:** <http://europa.eu.int/comm/research>
- **Sixth Framework Programme:**  
<http://www.cordis.lu/fp6/home.html>  
<http://www.cordis.lu/fp6/food.htm>
- **Seventh Framework Programme:**  
<http://www.cordis.europa.eu/fp7/home.html>
- **Research DG Site:**  
[http://europa.eu.int/comm/research/index\\_en.html](http://europa.eu.int/comm/research/index_en.html)
- **RTD info magazine:**  
<http://europa.eu.int/comm/research/rtdinfo/>
- **Information requests:** [research@ec.europa.eu](mailto:research@ec.europa.eu)



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## GLOSSARY

AC: Associated Country  
CAP: Common Agricultural Policy  
CFP: Common Fishery Policy  
CSA: Coordination and Support Actions  
ERC: European Research Council  
INCO: International Cooperation  
KBBE: Knowledge-Based Bio-Economy  
LCP: large collaborative projects  
MS: Member State  
NEST: New and Emerging Science and Technologies  
NoE: Network of Excellence  
SCP: Small collaborative projects  
SICA: Specific International Co-operation Actions

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