



InJoy&Train
4th Training Workshop
11-12 October 2007
Minsk - Belarus

Food Agriculture and Fisheries
and Biotechnology in
7 Framework Programme

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Cooperation – Collaborative research**10 Thematic Priorities**

€M *

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



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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THE EUROPEAN KNOWLEDGE-BASED BIOECONOMY

**QUALITY ASSURANCE
STRATEGIES TRACEABILITY,
CONSUMER SCIENCE**

SOCIETAL NEEDS

**STABILITY -
BIODEGRADABILITY
FUNCTIONALITY (Chirality)**

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



Life sciences &
biotechnology for
sustainable
non-food products +
processes



**ADVANCED FOOD
TECHNOLOGIES, FOOD QUALITY
DETERMINANTS, NUTRITION**

PROCESSING

**WHITE BIOTECH
CLEAN BIOPROCESSES
RAW MATERIALS/WASTE**

**LOW INPUT FARMING - BIODIVERSITY
ANIMAL HEALTH - RURAL DEVT.**

PRODUCTION

**GREEN/BLUE BIOTECH
OPTIMISED RAW MATERIALS**

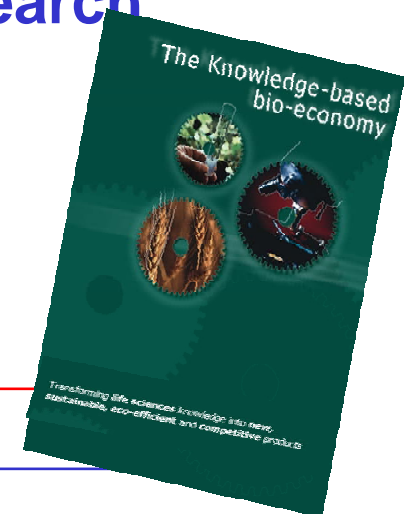
Sustainable production and management of biological resources from
land, forest, and aquatic environments



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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Activities

Food, **A**griculture and **F**isheries, and **B**iotechnology

K n o w l e d g e B a s e d B i o - E c o n o m y (K B B E)

Activity 2.1 Sustainable production and management of biological resources from land, forest and aquatic environment

Activity 2.2 Fork to farm: Food (including seafood), health and well being

Activity 2.3 Life Sciences, biotechnology and biochemistry for sustainable non-food products and processes





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**).

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Activity 1:

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

- Enabling research ('omics', converging technologies, bio-informatics, biodiversity) for micro-organism, plants and animals
- Competitive, sustainable and multifunctional agriculture, forestry, fishery and aquaculture
- Animal health production and welfare; animal diseases incl. zoonoses
- Marine resources, fishery, aquaculture
- Development of policy strategies for knowledge based bio-economy, agriculture, fishery as well as rural and coastal areas



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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
- Nutrition, diet related diseases and disorders
- Innovative food and feed processing
- Improved quality and safety of food, beverage and feed
- Total food chain concept



FP7 Sub-Pillar: Fork to Farm

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Consumers

Nutrition

Processing

Safety

Environment

From Fork to Farm

Health and well-being of consumers

Nutritional value / digestion / health impacts

Organoleptic impact

Safe, high-quality foods

Preparation

Storage / transport / retail

Processing

Environment

Production systems:
Agriculture / Fisheries / Aquaculture

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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





[Europa](#) > [CORDIS](#) > [FP7](#) > [Find a Call](#)

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- [Get support](#)
- [Find project partners](#)
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Cooperation : Calls

Food, Agriculture and Fisheries, and Biotechnology

Calls for Proposals

FP7-KBBE-2007-1 CLOSED	General Call 1
FP7-KBBE-2007-2A CLOSED	General call 2

Coordination of Research Activities related to this theme (Calls for Proposals)

FP7-ERANET-2007-RTD CLOSED	ERA-NET / ERA-NET Plus Call 2007
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[Other FP7 calls](#)





Work programme 2007

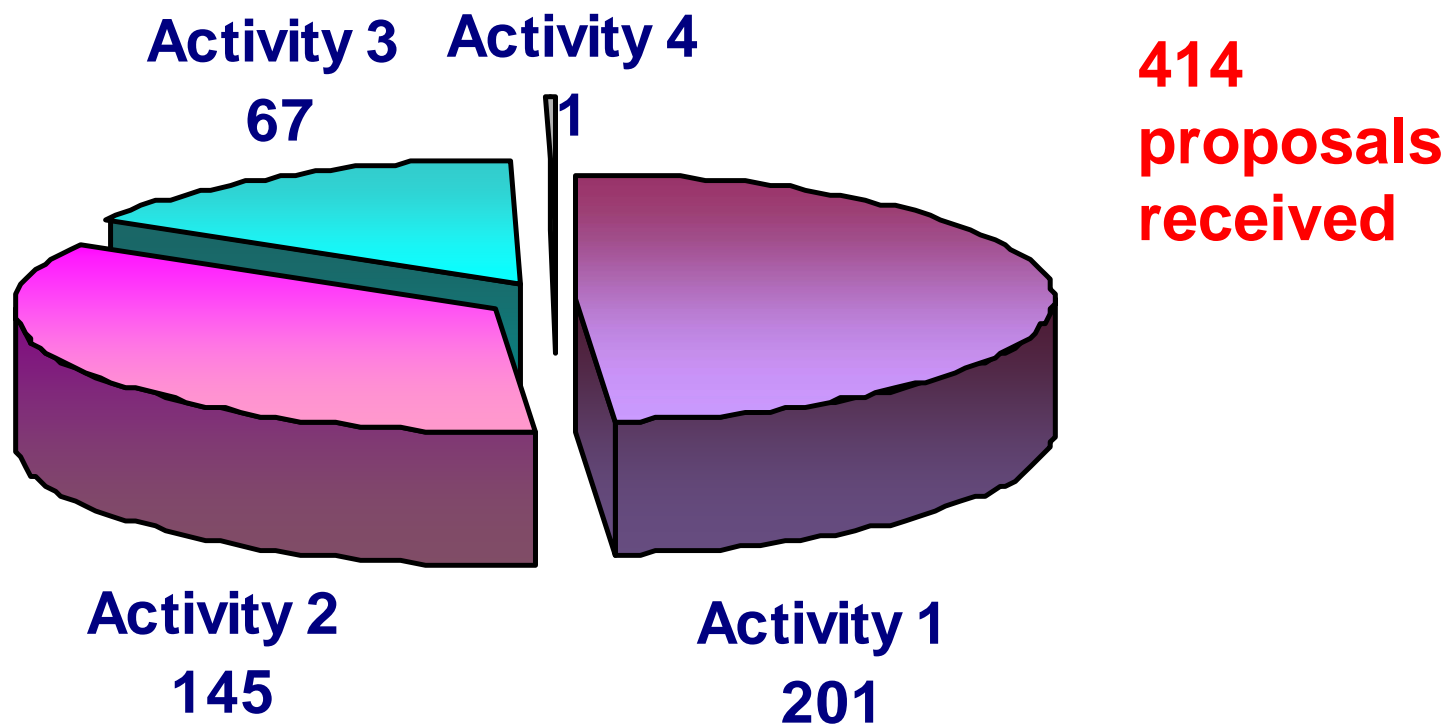
- **CALL KBBE-2007-1**
 - Publication: 22 Dec 2006
 - CSA, SCP, LCP & NoE covering all activities and areas
 - covering full 2007 budget (190.09 M €)
 - 1 step evaluation procedure (exceptionally also for LCP & NoE !!)
 - Deadline for proposal submission: 2 May 2007
- **CALL KBBE-2007-2A**
 - Publication: May 2007
 - **but already part of Work Programme 2007 !!!**
 - LCP & NoE covering all activities and areas
 - 2 step evaluation procedure
 - Deadline for proposal submission: 11 Sep 2007, 31 Jan 2008
 - Final evaluation (Feb 2008)
- **CALL ERANET-2007-RTD**
 - 2.0 M € for Theme 2

CLOSED

CLOSED

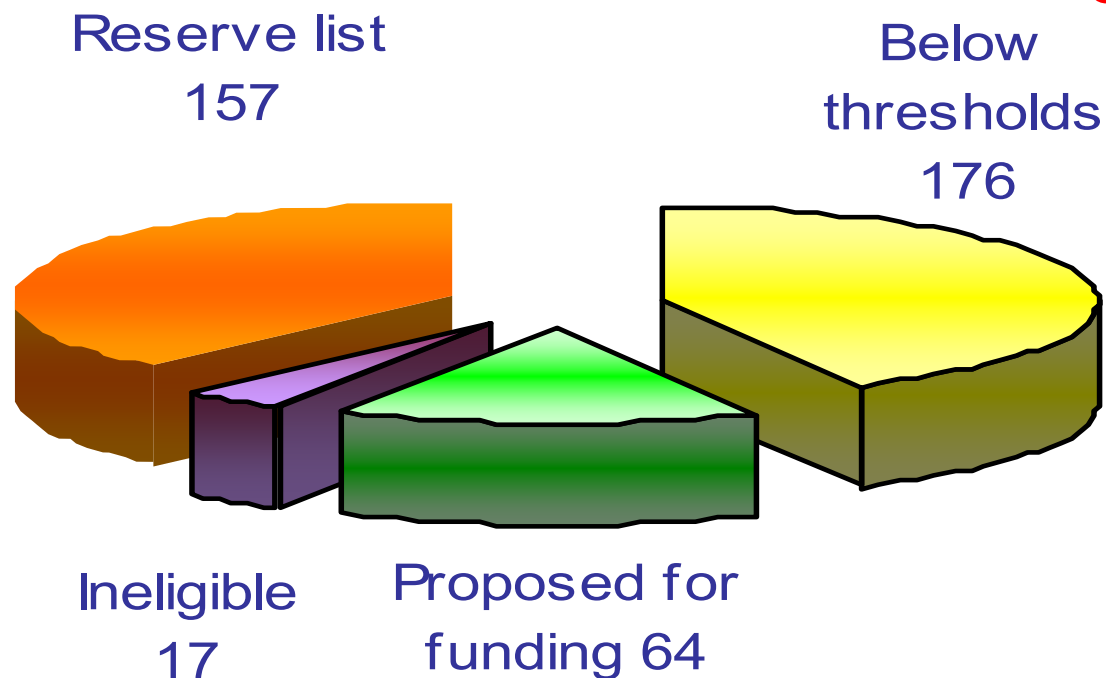
CLOSED

Call KBBE-2007-1 Results



Call KBBE-2007-1 Results

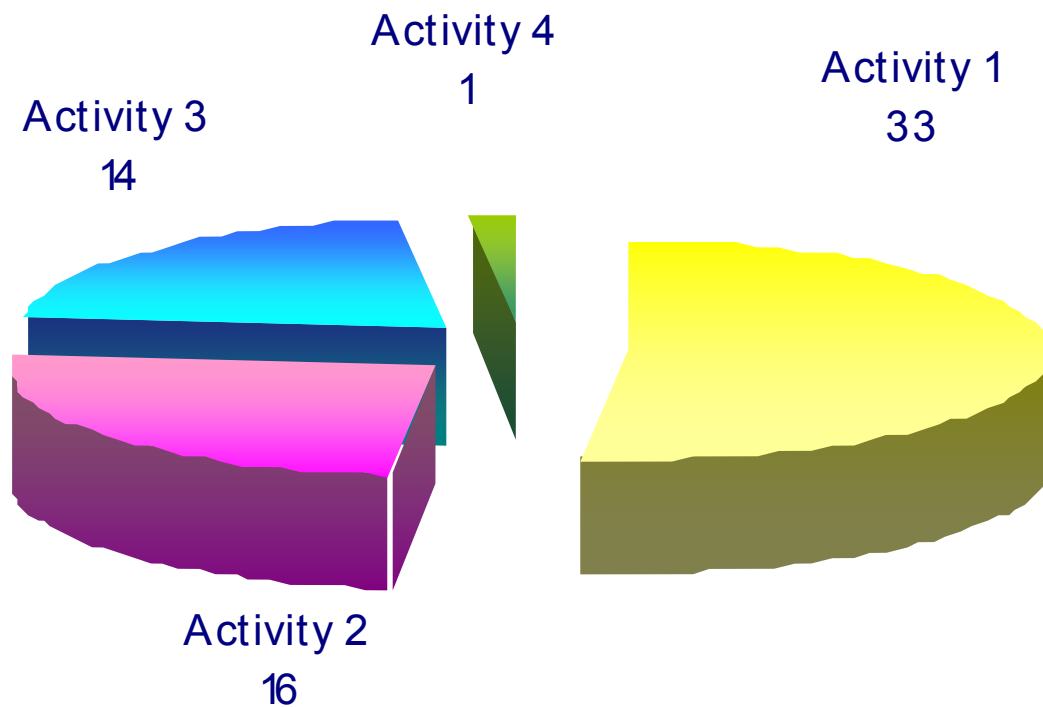
Results after the evaluations and eligibility check



Call KBBE-2007-1 Results

Total number of proposals proposed for funding: 64

Distribution among activities



Topics not covered

Below threshold No submission No Budget TOTAL

Activity 1	1	1	6	8
Activity 2	2	1	1	4
Activity 3	2	-	-	2
TOTAL	5	2	7	14

3rd Countries participation

in submitted proposals

▶ **58** different **THIRD COUNTRIES** +
8 FP7-ASSOCIATED participated

▶ **396 PARTICIPANTS** from Third Countries +
420 from **FP7-ASSOCIATED**
out of a total of **4.236**

9% OF THE TOTAL RESPONSE IS BY THIRD COUNTRIES (NON-ASSOCIATED)



Work Programme 2008

CALL FP7-KBBE-2008-2B

- Publication: **1 November 2007**
 - Deadline: **19 February 2008**

 - CSA, SCP covering all activities and areas
 - Full 2008 budget (213.85 M €)
 - 1 step evaluation procedure
-
-



Funding schemes

Collaborative research project (small)	Up to €3 million
Coordination and support actions (CSA)	Up to €1 million

Eligibility criteria*





Minimum conditions for participation

At least three legal entities must participate, each of which is established in a different Member State or Associated country

Specific:

- **Coordination and support actions (CSA) – minimum of 3 legal entities (except actions to support: 1 legal entity)**
- **Collaborative projects* addressing the participation of international cooperation partner countries (INCO) – minimum is 4 participants of which 2 in MS or Ac and 2 in INCO countries**

Participation of international organisations and participants from third countries possible if in addition to minima

Work Programme structure

EXAMPLE

II CONTENT OF CALLS IN 2007

Activity 2.1: Sustainable production and management of biological resources from land, forest and aquatic environments¹³

Area 2.1.1 Enabling Research

Enabling research on the key long term drivers of sustainable production and management of biological resources (micro-organisms, plants and animals) including the exploitation of biodiversity and of novel bioactive molecules within these biological systems. Research will include 'omics' technologies, such as genomics, proteomics, metabolomics, and converging technologies, and their integration within systems biology approaches, as well as the development of basic tools and technologies, including bioinformatics and relevant databases, and methodologies for identifying varieties within species groups.

CALL 1: FP7-KBBE-2007-1

KBBE-2007-1-1-01: Development of new tools and processes to support R&D in crop plants: molecular breeding Call: FP7-KBBE-2007-1

The project will develop new tools from technologies that support both research & development and the production of industrial prototypes for the breeding of crop plants using molecular tools. Proposals should pre-select and justify the choice of technologies to develop, which may include, among others, integrated phenotyping and genotyping, large-scale phenotyping with predictive value and predictive screening methods for desired genotypes, monitoring and diagnosis in complex systems – such as plants and plant-environment interactions.

Funding scheme: Small collaborative project

Expected impact: This project is expected to give the EU plant breeding industry a competitive edge for the breeding of crop plants for sustainable and competitive agriculture.

KBBE-2007-1-1-02: Mining genomics information of farm animals to generate new information on the genetic basis of phenotypes important to sustainable animal production Call: FP7-KBBE-2007-1

This project will use functional and comparative genomics and/or *in silico* analysis to dissect the genetic basis of one or more specified traits. The outcome of the research will be molecular diagnostic tools to assist in selective improvement of breeding stock of farmed animals.

Funding scheme: Small collaborative project

Expected impact: Through the tools to improve selection, the project will improve the efficiency and profitability of animal production and the competitiveness of animal production, within the overall framework of European policies on sustainability and on animal health and welfare.

Activity 2.1 SUSTAINABLE PRODUCTION AND MANAGEMENT OF BIOLOGICAL RESOURCES FROM LAND, FOREST AND AQUATIC ENVIRONMENT

Area 2.1.1 Enabling research

KBBE-2008-1-1-01: Development of new tools and processes based upon genomic resources to support R&D in crop plants for breeding



**Attention to the
“EXPECTED IMPACT”**



Work Programme 2008

KBBE-2008-2-2-02	<i>Bioactive compounds in traditional food products</i>	SCP - SICA	2 ICPC from Black Sea
KBBE-2008-3-1-04	<i>Plants produced Vaccines</i>	SCP - SICA	2 Russia
KBBE-2008-3-2-01	<i>Molecular modelling for rational design of industrial enzymes</i>	SCP - SICA	2 Russia
KBBE-2008-3-3-01	<i>Upgrading of wood, wood-related residues and humic-origin substances to added-value chemicals and materials: from biological understanding to innovative application</i>	SCP - SICA	2 Russia

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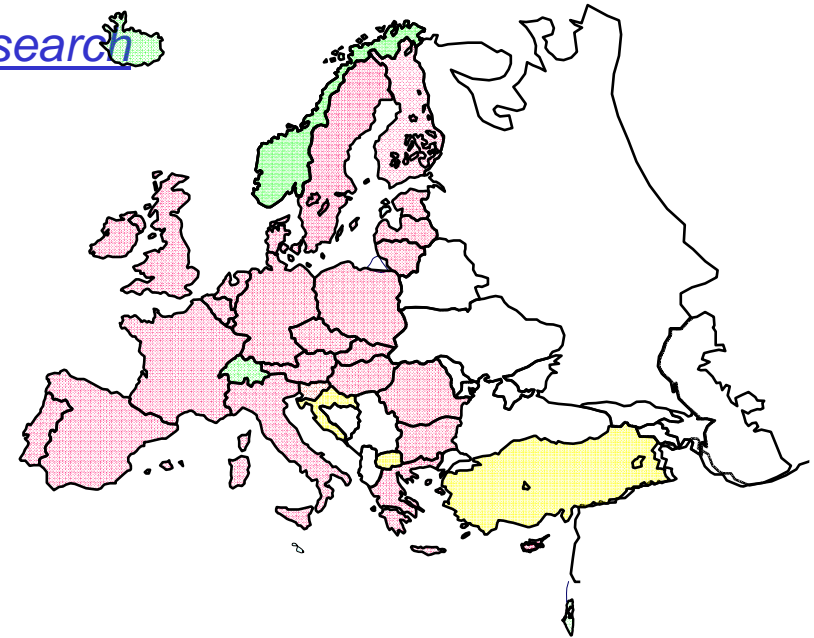
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Further information

- 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.lu/fp7/home.html>
- Research DG Site:
http://europa.eu.int/comm/research/index_en.html
- RTD info magazine:
<http://europa.eu.int/comm/research/rtdinfo/>
- Information requests: research@cec.eu.int





**Thank you
for the attention!**

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