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FP7 THEME 2

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

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)

WORK PROGRAMME 2010

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Directorate-General for Research
European Commission

Food,
Agriculture and **F**isheries,
and **B**iotchnology
Knowledge-Based Bio-Economy (KBBE)





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Presentation Index

- **Food, Agriculture and Fisheries, and Biotechnology** Rationale, Societal & Policy drivers
- **Work Programme 2010** Process, Novelties, Instruments
- **Open Calls** Funding schemes, Budget and Planning
 - o KBBE-2010-4
 - o Africa
 - o Ocean
 - o Influenza
 - o ERANET
- **International Cooperation** Examples
- **SMEs** Examples

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Define global research needs along the food chain

KBBE Rationale

y the European Commission



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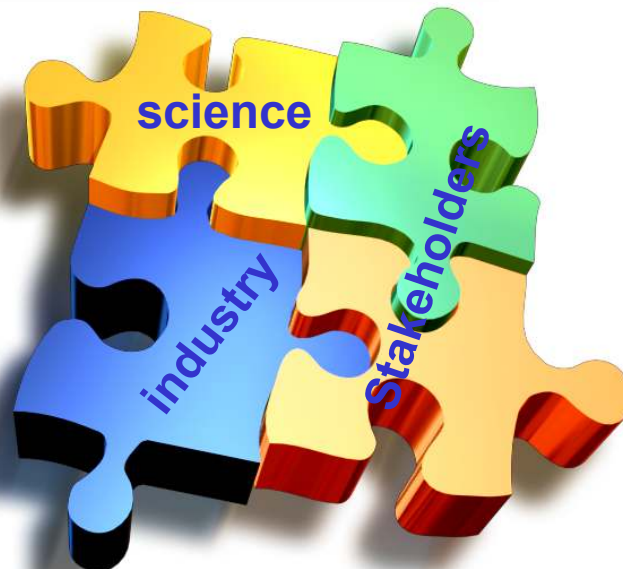
- **Build an European Knowledge-Based Bio-Economy (KBBE)**
- **Respond to social and economic challenges:**
 - Product markets- Productivity gains (Agriculture)
 - Enhancement effects (Nutrition & Health)
 - Eco-efficient and sustainable use of natural resources Substitution- (Biotechnologies)
 - **Support Lisbon Strategy** – Growth and Employment
- **Provide goods and services to a growing population**



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WORK PROGRAMME 2010 Objective



Building a European Knowledge-based Bio-Economy



Social challenges

Environmental challenges

Economic challenges

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WORK PROGRAMME 2010 Challenges

the European Commission

- **Climate change**
- **Competition for land use**
- **Increasing environmental considerations**
- **Feeding the increasing world population**
- **Safer, healthier, higher-quality food**
- **Sustainable use and production of renewable bio-resources**
- **European biobased industries competitiveness**

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WORK PROGRAMME 2010 European Added Value

the European Commission

“the value resulting from EU support for RTD activities which is additional to the value that would have resulted from RTD funded at regional and national levels by both public authorities and the private sector”

Attainment of EAV enshrined in EU legislation as one of the prime justifications for EU RTD actions. Need to evaluate EAV embedded in the EC Treaty. EAV considered a selection criteria.

Expected Impact

Potential impact through the development, dissemination and use of project results will be considered by the evaluators

➡ **Check for each topic detailed expected impacts**



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from consultation to adoption

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Indicative Criteria

- 1 - Importance for EU growth and competitiveness
- 2 - Supporting other EU policies/strategies/initiatives
- 3 - Supporting global/regional challenges, EU responsibility
- 4 - Supporting coordination of ERA and KBBE development

Sources / Inputs

Programme Committee, Advisory Group, ETPs, DGs, Experts groups, Workshops, Conferences, spontaneous inputs



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WORK PROGRAMME 2010 Priorities

Addressing policy challenges → KBBE development & consolidation

ACTIVITY 2.1

Optimisation primary agricultural production systems, fisheries and aquaculture

Eco-innovation food industry, prevention diet-related diseases and disorders

Exploitation industrial, environmental and marine biotechnologies



ENVIRONMENTAL FOOTPRINT

SOCIO-ECONOMIC ISSUES

SUSTAINABILITY

- SMEs relevant research
- International Cooperation
- Cross-thematic approaches (Ocean tomorrow, Call for Africa, Call for Influenza)
- Socio-economic research
- Gender aspect in research
- Promoting effect communication and dissemination
- ERA-NET
- plant science
- soil and water management
- animal health and welfare
- livestock production
- fishery management



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Food, Agriculture and Fisheries, and Biotechnology

Knowledge-Based Bio-Economy (KBBE)

FP7 KBBE - Activity 2.1

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



Food, Agriculture and Fisheries, and Biotechnology

EU agriculture, forestry and fishery facts and figures

- 17 million farmers
- 42% of total land area used for agriculture
- 13% of world cereal production
- Food sector accounts for 3% of EU gross value added and provides 3.6 million jobs
- 5% of GDP derived from aquatic products



- Enabling research ('omics' converging technologies, bio-informatics, biodiversity) for micro-organism, plants and animals
- Increasing sustainability of production systems; plant health and crop protection
- Optimising animal health production and welfare; animal diseases
- Supporting policies and socio-economic research
- Integrating marine and maritime research; joint call "The ocean of tomorrow"

Food, Agriculture and Fisheries, and Biotechnology
Knowledge-Based Bio-Economy (KBBE)

EU-AgriNet www.ec.europa.eu/research/agriculture/index_en.html





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WORK PROGRAMME 2010 Priorities

Addressing policy challenges → KBBE development and consolidation

ACTIVITY 2.2

Optimisation primary agricultural production systems, fisheries and aquaculture

Eco-innovation food industry, prevention diet-related diseases and disorders

Exploitation industrial, environmental and marine biotechnologies

FOOD CHOICE DETERMINANTS

HEALTHY DIETS

AGE-RELATED DISORDERS

HUNGER/SATIETY

PERSONALISED NUTRITION

PACKAGING

FOOD CONTAMINANTS

- SMEs relevant research
- International Cooperation
- Cross-thematic approaches (Ocean tomorrow, Call for Africa, Call for Influenza)
- Socio-economic research
- Gender aspect in research
- Promoting effect communication and dissemination
- ERA-NET
- Consumer
- Nutrition
- Food processing
- Food quality and safety
- Total food chain and Environment

Food, Agriculture and Fisheries, and Biotechnology
Knowledge-Based Bio-Economy (KBBE)





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Food, Agriculture and Fisheries, and Biotechnology

Knowledge-Based Bio-Economy (KBBE)

FP7 KBBE - Activity 2.2

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



Food, Agriculture and Fisheries, and Biotechnology

EU food facts and figures:

- Leading manufacturing sector
- Employs 4.1 million
- EUR 800 billion annual turnover
- 283 000 food companies (99% SMEs)

The food and drink industry is one of Europe's most important and dynamic economic sectors. The European Commission aims to maintain its competitiveness while taking account of the requirements of the Community's policies and the European Union's international obligations.



- 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

Food, Agriculture and Fisheries, and Biotechnology

Knowledge-Based Bio-Economy (KBBE)





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WORK PROGRAMME 2010 Priorities

Addressing policy challenges → KBBE development and consolidation

ACTIVITY 2.3

Optimisation primary agricultural production systems, fisheries and aquaculture

Eco-innovation food industry, prevention diet-related diseases and disorders

Exploitation industrial, environmental and marine biotechnologies



GREENING CHEMICAL INDUSTRY

ECO-EFFICIENT PRODUCTION PROCESS

SOIL AND WATER REMEDIATION

NEW COMMODITIES PRODUCTS

- SMEs relevant research
- International Cooperation
- Cross-thematic approaches (Ocean tomorrow, Call for Africa, Call for Influenza)
- Socio-economic research
- Gender aspect in research
- Promoting effect communication and dissemination
- ERA-NET
- Biocatalysis
- Bioremediation
- Biodiversity

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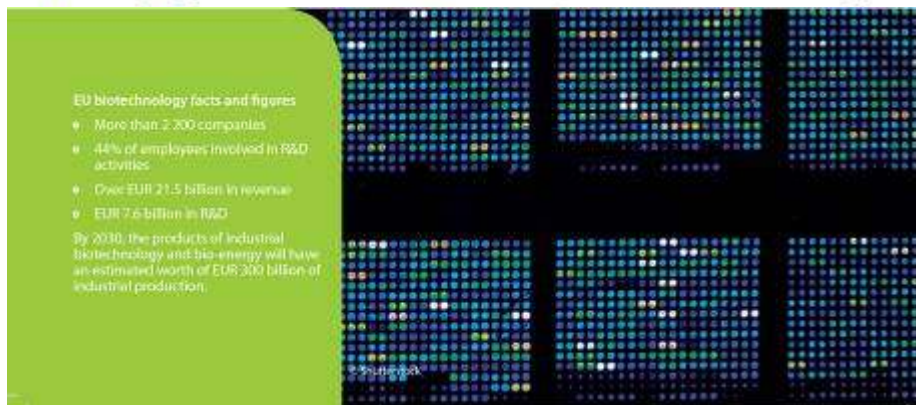
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Knowledge-Based Bio-Economy (KBBE)

FP7 KBBE - Activity 2.3

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



Food, Agriculture and Fisheries, and Biotechnology



EU biotechnology facts and figures

- More than 2,200 companies
- 44% of employees involved in R&D activities
- Over EUR 21.5 billion in revenue
- EUR 7.6 billion in R&D

By 2030, the products of industrial biotechnology and bio-energy will have an estimated worth of EUR 300 billion of industrial production.

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

Food, www.cordis.europa.eu/fp7/kbbe/home_en.htm,
Agriculture and Fisheries,
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Environmental remediation and cleaner processing





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WORK PROGRAMME 2010 Novelties

- **More broader topics (mainly for CP-FPs)**
- **More than one project financed per topic – Activity 2.3**
- **Funding limits range wider, specified in the topics, up to EUR 9 million**
- **Cross-thematic aspects:**
 - **Marine joint call (Dir E, H, I, K, L)**
 - **Specific call on Africa targeting water and food security (Dir. E, I, D, ...)**



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WORK PROGRAMME 2010 Instruments

48 topics

Funding scheme	Number of topics	EC contribution
Collaborative Projects - large scale integrating projects (CP-IP)	14	EUR 4.500.000 to 9.000.000 As stated in the topic
Collaborative Projects - small or medium- scale focused research project (CP- FP)	20	EUR 1.000.000 to 3.000.000 As stated in the topic
Coordination & Support Actions (CSA)	14 (including 3 ERA-nets)	EUR 500.000 to 1.000.000 As stated in the topic

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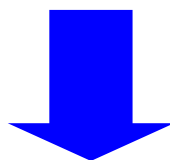


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WORK PROGRAMME 2010 New Features

Topics targeting SMEs



**encourage SMEs and industry in
research & innovation**

- **1 topic** – research for SMEs (Activity 2.2)
- **16 topics** - SMEs participation encouraged:
 - **3 topics** in Act. 2.1
 - **6 topics** in Act. 2.2
 - **7 topics** in Act. 2.3

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➔ <http://ec.europa.eu/research/sme-techweb>





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New Features

Topics of special interest for Enlarged European Union

- **2 topics** in Act. 2.1. : i.e. Inventory of biodiversity resources, Farm animal welfare framework
- **4 topics** in Act. 2.2. : i.e. Improving integration, Strengthening cooperation; Health-value-added food products for population groups at risk of poverty; Transparency of food pricing
- **2 topics** in Act. 2.3. : i.e. Robust and novel biocatalysts, 'Greening' the chemical industry, Industrial bioprocesses for fine and speciality chemicals



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Open Calls 2010

www.cordis.europa.eu/fp7/kbbe/home_en.htm

FP7 Calls

Cooperation

Ideas

People

Capacities

Euratom

m

Food, Agriculture and Fisheries, and Biotechnology Calls: FP7-KBBE-2010-4

Information Package | Electronic Proposal Submission Service (EPSS)
Additional Documents | Get Support | Build Your Consortium

KBBE 2010 : general call for proposals

EPSS is now available for this call for proposals

Identifier: FP7-KBBE-2010-4

Publication Date: 30 July 2009


Budget: € 190 010 000

Deadline: 14 January 2010 at 17:00:00 (Brussels local time)

OJ Reference: OJ C177 of 30 July 2009

Specific Programme(s): Cooperation

Theme: Food, Agriculture and Fisheries, and Biotechnology

Restrictions to Participation: See eligibility criteria in the work programme 

Additional Information:

- FP7-KBBE-2010-4
(190 M EUR)
- FP7-AFRICA-2010
(63 M EUR)
- FP7-INFLUENZA-2010
(18 M EUR)
- FP7-OCEAN-2010
(34 M EUR)
- FP7-ERANET-2010
(21.5 M EUR)



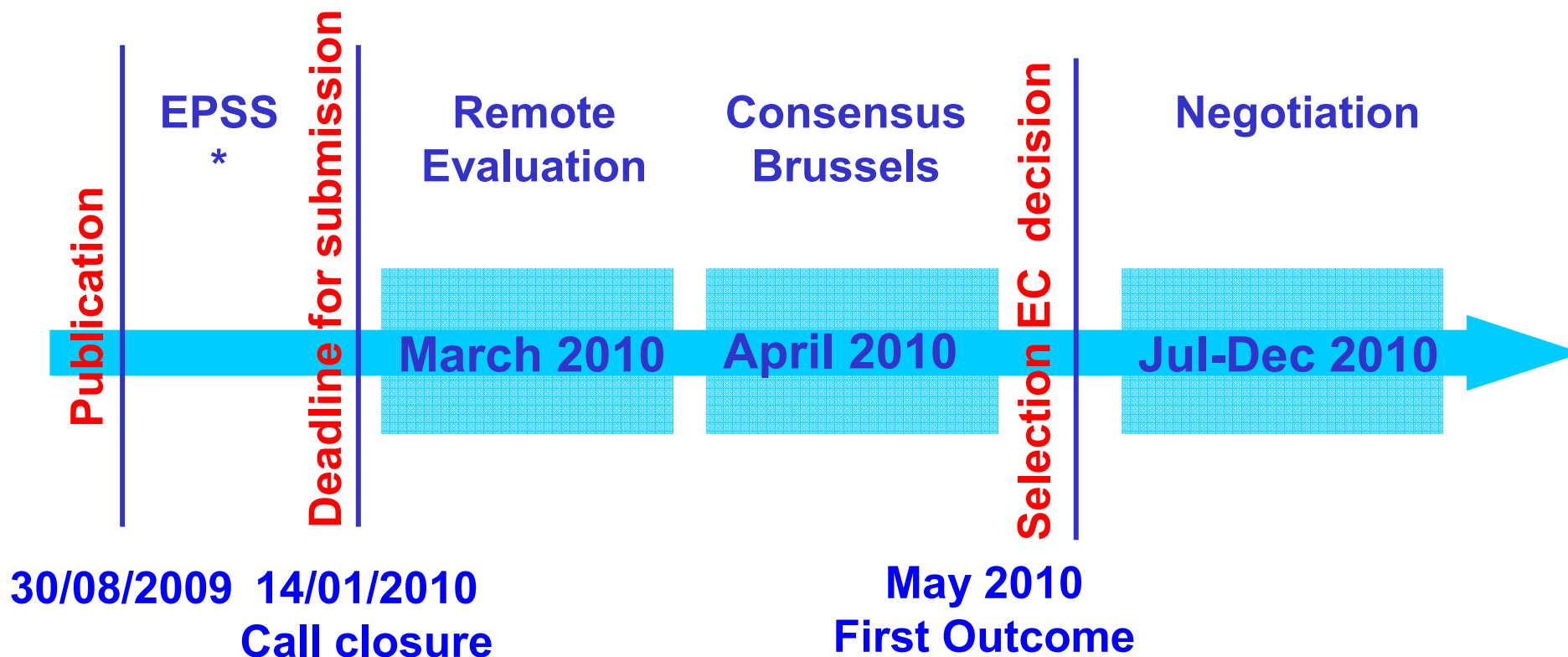


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FP7-KBBE-2010-4

Evaluation and selection process *indicative planning*



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* Electronic Proposal Submission Service (EPSS)
now available for this call for proposals



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General Call for proposals FP7-KBBE-2010-4

- Budget *indicative*:
 - Activity 2.1 190 M Euro
 - Activity 2.2 71.54
 - Activity 2.3 56.95
 - Other activities 53.02
 - 5.5
- Date of publication: 30 July 2009
- Closure date: 14 Jan 2010 (17:00 Brussels)
- Number of Topics: 48



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Call for AFRICA FP7-AFRICA-2010

- Aim of the call:

Targeted research effort to meet the challenges for Water, Food Security and better Health for Africa (Africa-EU Strategic Partnership)

HEALTH.2010.3.4-2: Feasibility and community effectiveness of innovative intervention packages for maternal and new-born health in Africa (CP-FP-SICA)

KBBE.2010.1.-2-03: Sustainable water resources management (WRM) and Soil fertility conservation for food production in Africa (CP-IP-SICA)

KBBE.2010.2.2-03: Identifying research needs on malnutrition in Africa (CSA)

KBBE.2010.3.5-02: Coping with water scarcity in developing countries: Role of biotechnology in water treatment (CSA)

ENV.2010.1.3.3-1: Early warning and forecasting systems to predict climate related drought vulnerability and risks in Africa (CP-FP-SICA) ... for example



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Call 'The Ocean of tomorrow' FP7-OCEAN-2010

- Aim of the call:

Targeted research effort to assess rapid environmental changes that affect the full range of goods and services provided by the oceans

OCEAN.2010-1: Quantification of climate change impacts on economic sectors in Arctic (CP-IP)

OCEAN.2010-2: Vectors of changes in marine life, impact on economic sectors (CP-IP)

OCEAN.2010-3: Sub-seabed carbon storage and the marine environment (CP-IP)

Info day 16/09/2009 www.cordis.europa.eu/fp7/dc/index.cfm



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Call for INFLUENZA FP7-INFLUENZA-2010

- Aim of the call:

Targeted research effort to meet the challenges of the recent outbreak of a novel human influenza virus

HEALTH.2010.2.3.3-4:

Novel therapeutics against influenza (CP-FP)

KBBE.2010.1.3-05:

Swine influenza surveillance network (CSA)

KBBE.2010.1.3-06:

Pathogenesis and transmission of influenza in pigs (CP-IP)



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Call ERANET FP7-ERANET-2010-RTD

- Aim of the call:

Targeted research effort to develop and strengthen the coordination and networking of national and regional research programmes

KBBE.2010.1.1-02: Deepened and enlarged European cooperation in the area of Molecular Plant Sciences (CSA)

KBBE.2010.1.2-06: Deepened and enlarged cooperation between phytosanitary (statutory plant health) research programmes (CSA) *...for example*



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International Cooperation

- **Opening of all activities / topics (48)**
to participation of Third Countries
- **Targeted topics (4)** where participation of specific Third Countries is particularly welcome and for consideration by the evaluators.
- **Specific International Co-operation Actions (SICA) and other activities with mandatory ICPC participation (5)**
Africa, Latin America, MED
- **Twining** with programmes in Third Countries
Argentina, New Zealand, Canada, ...
- **New features**
Special call on Africa on water and food security
2 Global initiatives on Animal health and abiotic stress tolerance of plants



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Others actions

- **Evaluations**

Experts for the evaluation of project proposals

- **Monitoring, review and impact assessment**

- Study on 'Forward looking activity to identification of future actions in the field of KBBE research and their potential impacts
- Eurobarometer survey : Life Sciences and Biotechnology 2010
- Groups of independent experts for policy relevant analysis and forward looking reflection on KBBE related research

- **Review of projects**

Independent experts to review FP6 and FP7 projects

• **Register as a potential FP7 Expert at**
<https://cordis.europa.eu/emmfp7/>

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Evaluation of Calls

constituting a commitment by the European Commission



• Budget M€:	190	63	34	18	21.5
	<i>indicative</i>				
• Date of publication:	-----	-----	30 July 2009	-----	-----
• Closure date:	14	14	14	29	19
	Jan	Jan	Jan	Oct	Jan
	2010	2010	2010	2009	2010
• Topics:	48	15	3	3	12



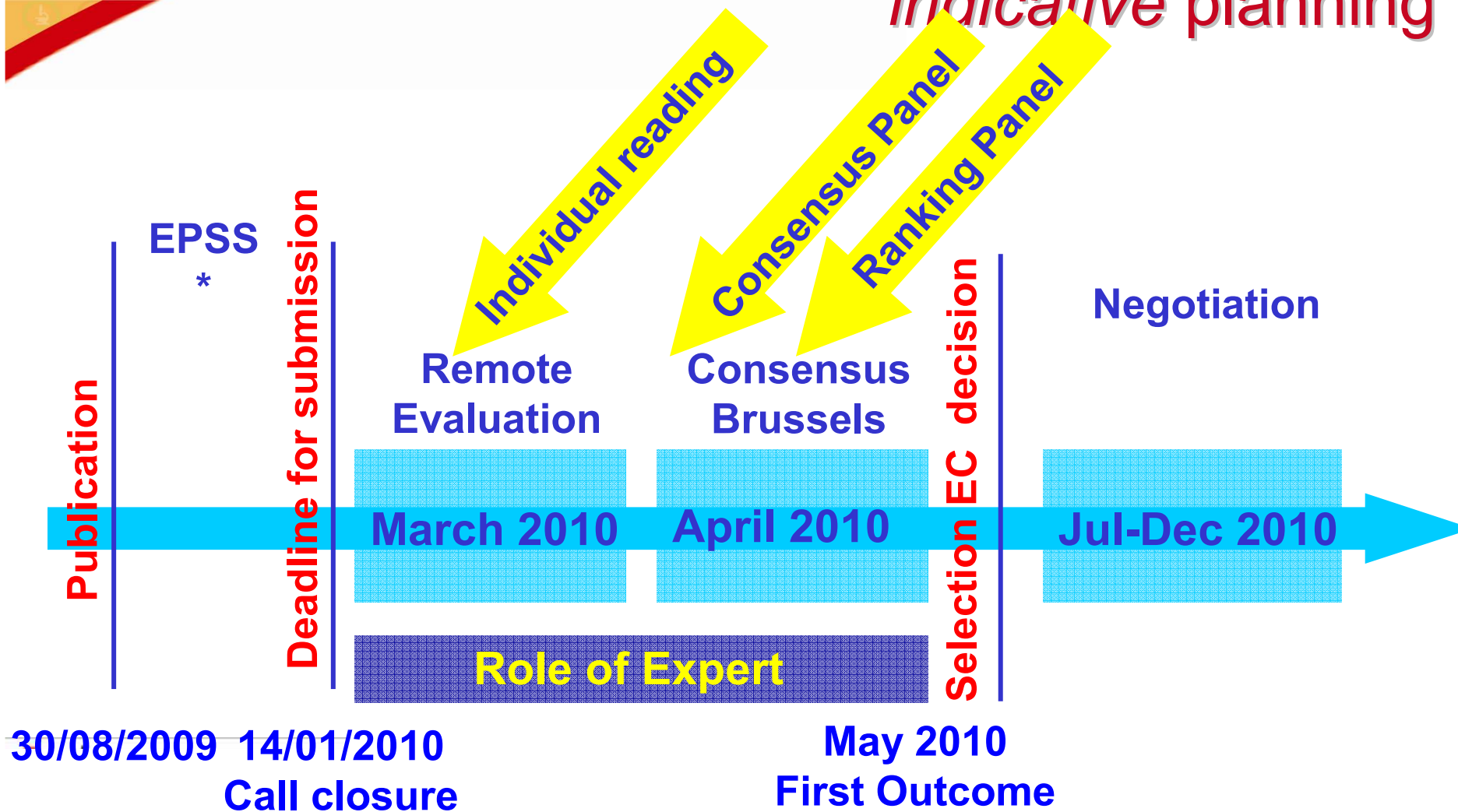


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FP7-KBBE-2010-4

Evaluation and selection process *indicative planning*



* Electronic Proposal Submission Service (EPSS) now available for this call for proposals

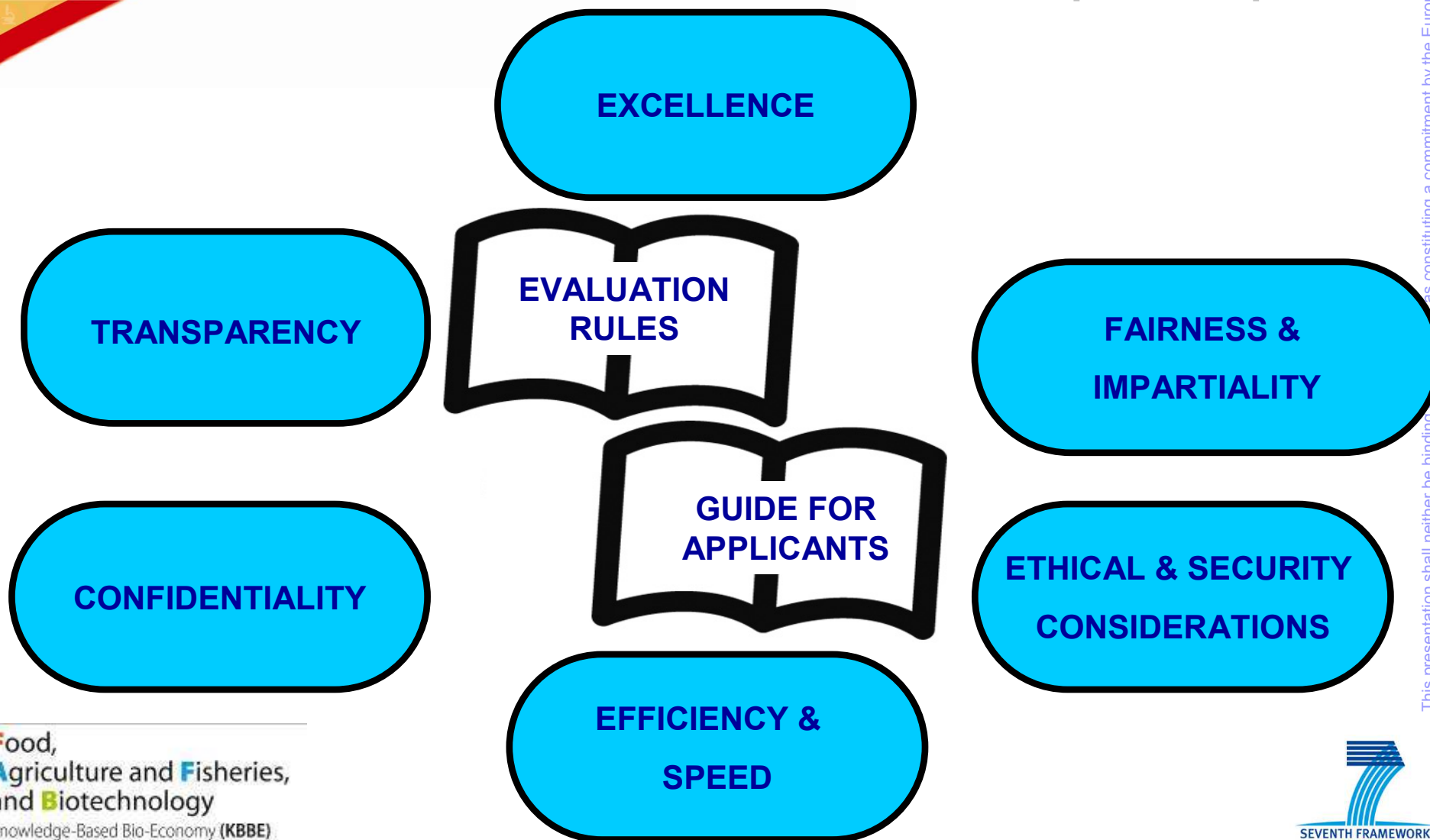


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Evaluation process

Basic principles





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Consensus Panel Who's who



➔ all proposals evaluated
with confidentiality and impartiality

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Evaluation Scoring

- **0 Fail** - The proposal fails to address the criterion under examination or cannot be judged due to missing or incomplete information
- **1 Poor** - The criterion is addressed in an inadequate manner, or there are serious inherent weaknesses
- **2 Fair** - While the proposal broadly addresses the criterion, there are significant weaknesses
- **3 Good** - The proposal addresses the criterion well, although improvements would be necessary
- **4 Very Good** - The proposal addresses the criterion very well, although certain improvements are still possible
- **5 Excellent** - The proposal successfully addresses all relevant aspects of the criterion in question.
Any shortcomings are minor





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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)

➔ www.cordis.europa.eu/fp7/kbbe/home_en.htm

EU research

<http://www.europa.eu/comm/research>

6th Framework Programme

<http://cordis.europa.eu/fp6/dc/index.cfm?fuseaction=UserSite.FP6HomePage>

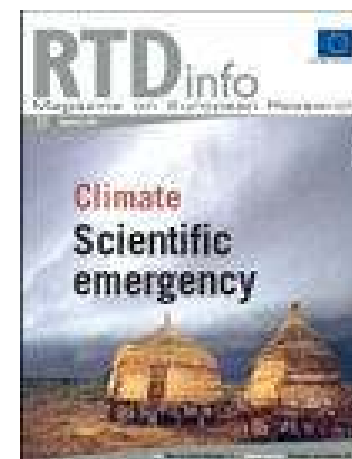
EC Web sites

7th Framework Programme

<http://cordis.europa.eu/fp7/>

DG Research Site

<http://ec.europa.eu/research/index.cfm>



RTD info magazine

<http://ec.europa.eu/comm/research/rtdinfo>

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