

# EUROPEAN PARLIAMENT

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*Committee on Agriculture and Rural Development*

**2005/0185(CNS)**

23.2.2006

## OPINION

of the Committee on Agriculture and Rural Development

for the Committee on Industry, Research and Energy

on the proposal for a Council decision concerning the Specific Programme  
“Cooperation” implementing the Seventh Framework Programme (2007-2013)  
of the European Community for research, technological development and  
demonstration activities  
(COM(2005)0440 – C6-0381/2005 – 2005/0185(CNS))

Draftsman: Markus Pieper

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## SHORT JUSTIFICATION

Pursuing the Lisbon Strategy, the EU's agriculture and agri-food industry must now aim to become globally more competitive, through innovation, by exploiting technological progress and by continuing to upgrade quality standards. Research has already made a considerable contribution to sustainable rural development and supported farmers and the agri-food industry in meeting the EU citizen's growing demand for diverse and healthy produce. Through innovation, research has helped the agri-food industry gain a central place in the European and global economy.

Now, more than ever, the contribution of research is needed to help maintain and reinforce Sustainable Agriculture in the European Union. If it is to help farmers meet the challenges of the new CAP and contribute to creating sustainable growth in an increasingly globalised economy, research in the European Union has to keep pace with ongoing international research activities and technological developments.

In the 6<sup>th</sup> framework programme (2002 - 2006) agricultural research was limited almost exclusively to food quality and safety. In the 7<sup>th</sup> framework programme (2007 - 2013) the European Commission offers a much wider approach, proposing as it does to build 'a European knowledge-based bio-economy, to exploit new and emerging research opportunities that address economic and social challenges'. The proposal devotes one chapter to "Food, Agriculture and Biotechnology" (Theme 2). Furthermore agricultural research is also treated under theme 5 on energy as well as under theme 6 on environment.

Your draftsman welcomes the Commission's broader vision and can only applaud the decision to extend the budget available for the 7<sup>th</sup> framework programme compared to the previous programming period.

In order to implement the 7<sup>th</sup> Framework Programme, the European Commission is presenting five "specific programmes". The first relates directly to actions funded under the Joint Research Centre. The other four are entitled: Co-operation, Ideas, Peoples and Capacity. The one under discussion here is the Co-operation specific programme.

The Co-operation specific programme's is mainly designed to gain European leadership in key areas through co-operation of industry and research institutions. Support will be given to the whole range of research activities carried out in trans-national cooperation, from collaborative projects and networks to the coordination of research programmes.

The Cooperation programme is organised into nine sub-programmes which will be operationally autonomous and at the same time demonstrate coherence and consistency, and allow for joint, cross-thematic approaches to research subjects of common interest. The proposed budget for theme 2 "Food, Agriculture and Biotechnology" in the Cooperation programme is 2,45 billion Euro. This proposed budget is necessary with a view to the numerous approaches included under this theme (agriculture, fisheries, forestry etc.)

Your draftsman is generally satisfied with the proposal of the Commission. The main ideas emphasised seem to tie in with the draftsman's vision, especially seeing agriculture recognised as one of the nine thematic areas in which European Union action will apply.

However, he takes the view that some fine tuning is necessary and therefore suggests several amendments, mainly related to theme 2 "Food, Agriculture and Biotechnology".

- The need to feature the multi-functional role of agriculture more prominently should be outlined. Research should promote the implementation of production systems capable of combining economic, environmental and social performance.
- Furthermore research relating to climate change needs to be included in the activities under theme 2 as an adaptation of agriculture to climate change seems significant.
- A better coordination between researchers in Europe as well as a better communication of research results should be supported.
- The need for the Commission to be consequent as to link concrete activities to the approach taken, should be emphasized. When referring in the approach part of theme 2 specifically to the contributions of research to the CAP, the Common Animal Health Policy, the EU forestry strategy and the CFP it also necessary to link concrete activities.

At last, the draftsman considers that special attention is needed to effective coordination the potential overlap of the "Food, agriculture and biotechnology theme with other thematic areas. Therefore he encourages a joint cross-thematic approaches and calls for inter-thematic cooperation.

## AMENDMENTS

The Committee on Agriculture and Rural Development calls on the Committee on Industry, Research and Energy, as the committee responsible, to incorporate the following amendments in its report:

| Text proposed by the Commission  | Amendments by Parliament  |
|--|---|
| Amendment 1<br>Annex I, Themes, 2. Food, agriculture and biotechnology,<br>Objective, paragraph 1  |   |
| Building a European Knowledge Based Bio-Economy by bringing together science, industry and other stakeholders, to exploit new and emerging research opportunities that address social and economic challenges: the growing demand for safer, healthier and higher quality food, taking into account animal welfare and rural contexts; the sustainable production and use of renewable | Building a European Knowledge Based Bio-Economy by bringing together science, industry and other stakeholders, to exploit new and emerging research opportunities that address social, <i>environmental</i> and economic challenges: the growing demand for safer, healthier and higher quality food, taking into account <i>the multifunctional role of agriculture</i> , animal welfare and rural |

bio-resources; the increasing risk of epizootic and zoonotic diseases and food related disorders; threats to the sustainability and security of agricultural and fisheries production resulting *in particular* from *climate change*.

contexts; the sustainable production and use of renewable bio-resources; the increasing risk of epizootic and zoonotic diseases and food related disorders *and other efforts to exclude diseases linked to animal feed*; threats to the sustainability and security of agricultural and fisheries production *and resistance and adaptation of the food chain* resulting from *global change* (climate change, *energy costs etc.*).

#### *Justification*

*- Research should promote the implementation of production systems capable of combining economic, environmental and social performance. The multi-functional role of agriculture needs to feature more prominently.*

*- Sustainable development is based on 3 pillars; social, environmental and economic challenges.*

*The effects of animal feed are also an important sector of agricultural research, as well as diseases arising from it, such as BSE.*

*It is important to do research on the effects on the food chain of global change (especially climate change).*

#### Amendment 2

##### Annex I, Themes, 2. Food, agriculture and biotechnology, Approach, paragraph 1

This theme will strengthen the knowledge base, deliver the innovations and provide policy support for building and developing a European Knowledge Based Bio-Economy (KBBE). Research will focus on the sustainable management, production and use of biological resources, *in particular* through life sciences and biotechnology and the convergence with other technologies, to provide new, eco-efficient and competitive products from European agriculture, fisheries, aquaculture, food, health, forest based and related industries. Research will make important contributions to the implementation and formulation of EU policies and regulations and specifically address or support: the Common Agricultural Policy; agriculture and trade issues; food safety regulations; Community

This theme will strengthen the knowledge base, deliver the innovations and provide policy support for building and developing a European Knowledge Based Bio-Economy (KBBE). Research will focus on the sustainable management, production and use of biological resources, *inter alia* through life sciences and biotechnology and the convergence with other technologies, to provide new, eco-efficient and competitive products from European agriculture, fisheries, aquaculture, food, health, forest based and related industries. Research will make important contributions to the implementation and formulation of EU policies and regulations and specifically address or support: the Common Agricultural Policy; agriculture and trade issues; food safety regulations; Community

Animal Health Policy, disease control and welfare standards; environment and biodiversity; EU Forestry Strategy; and the Common Fisheries Policy aiming to provide sustainable development of fishing and aquaculture. Research will also seek to develop new and existing indicators supporting analysis, development and monitoring of these policies.

Animal Health Policy, disease control and welfare standards; **rural development**; environment and biodiversity; EU Forestry Strategy; and the Common Fisheries Policy aiming to provide sustainable development of fishing and aquaculture. Research will also seek to develop new and existing indicators supporting analysis, development and monitoring of these policies.

#### *Justification*

*It is important for the implementation of comprehensive agricultural research to interpret the chapter 'Food, Agriculture and Biotechnology' broadly and not to restrict it to particular methods. The theme 'biotechnology' will be dealt with in detail elsewhere in this chapter. Research and the sharing of innovative experiences in the strategic component of rural development are crucial.*

#### Amendment 3

Annex I, Themes, 2. Food, agriculture and biotechnology,  
Approach, paragraph 2

Agro-food industries, of which 90% are SMEs, will particularly benefit from many research activities, including targeted dissemination and technology transfer activities, in particular as regards the integration and uptake of advanced eco-efficient technologies, methodologies and processes and the development of standards. High-tech start-ups from the bio-, nano- and ICT are expected to provide important contributions to the areas of plant breeding, improved crops and plant protection, advanced detection and monitoring technologies for ensuring food safety and quality, and new industrial bioprocesses.

Agro-food industries, of which 90% are SMEs, will particularly benefit from many research activities, including targeted dissemination and technology transfer activities, in particular as regards the integration and uptake of advanced eco-efficient technologies, methodologies and processes and the development of standards. High-tech start-ups from the bio-, nano-, ICT, **robot and satellite technology** are expected to provide important contributions to the areas of plant breeding, improved crops and plant protection, advanced detection and monitoring technologies for ensuring food safety and quality, and new industrial bioprocesses. ***These start-ups may also be a decisive factor for the development of European rural areas, particularly if they organise themselves into networks for knowledge and the exchange of innovative experiences in the context of rural development.***

#### *Justification*

*Robot and Satellite technology are useful tools in both production and monitoring processes.*

*Europe's rural areas, most of which are badly affected by socio-economic depression, are most in need of innovatory firms, the aim being to bring them closer to European levels of development and competitiveness.*

#### Amendment 4

#### Annex I, Themes, 2. Food, agriculture and biotechnology, Approach, paragraph 3

Several European Technology Platforms, covering the areas of plant genomics and biotechnology, forestry and **forest based industries**, global animal health, farm animal breeding, food, aquaculture and industrial biotechnology, will contribute in setting common research priorities for this theme, in identifying possible future large scale initiatives such as demonstration projects for the production of bulk chemicals from biomass (plant cell wall, biofuels, biopolymers) and help ensure broad participation and integration of all stakeholders. Actions to enhance the co-ordination of national research programmes will be pursued wherever appropriate, in close co-ordination with ERA-Net projects, Technology Platforms and other relevant actors, such as the Standing Committee on Agricultural Research (SCAR) or any future European maritime research co-ordination structure.

Several European Technology Platforms, covering the areas of plant genomics and biotechnology, forestry and **the forestry sector**, global animal health, farm animal breeding, food, aquaculture and industrial biotechnology, will contribute in setting common research priorities for this theme, in identifying possible future large scale initiatives such as demonstration projects for the production of bulk chemicals from biomass (plant cell wall, biofuels, biopolymers) and help ensure broad participation and integration of all stakeholders. ***An important issue in this context is better dissemination of the findings of applied research in the agricultural sector.*** Actions to enhance the co-ordination of national research programmes will be pursued wherever appropriate, in close co-ordination with ERA-Net projects, Technology Platforms and other relevant actors, such as the Standing Committee on Agricultural Research (SCAR) or any future European maritime research co-ordination structure. ***In order to remedy gaps in communication and improve cooperation in European agricultural research, the establishment and extension of Internet platforms should be supported.***

#### *Justification*

*Research findings should be coordinated better by improving dialogue between research centres and between researchers, users and consumers.*

*There is often a shortage of cross-border contacts. In order to improve EU-level cooperation and improve the use of synergies, a jointly created Internet platform is a suitable way of establishing contacts.*

*The forestry sector includes the European paper and wood processing industry.*

Amendment 5  
Annex I, Themes, 2. Food, agriculture and biotechnology,  
Activities, paragraph 1, indent 2

– Increased sustainability and competitiveness, while decreasing environmental impacts, in agriculture, forestry, fisheries and aquaculture through the development of new technologies, equipment, **monitoring systems**, novel plants and production systems, the improvement of the scientific and technical basis of fisheries management, and a better understanding of the interaction between different systems (agriculture and forestry; fisheries and aquaculture) across a whole ecosystem approach. For land based biological resources, special emphasis will be placed on low input and organic production systems, improved management of resources and novel feeds, and novel **plants (crops and trees)** with improved composition, resistance to stress, nutrient use efficiency, and architecture. This will be supported through research into biosafety, co-existence and traceability of novel plants systems and products. Plant health will be improved through better understanding of ecology, biology of pests, diseases and other threats and support to controlling disease outbreaks and enhancing sustainable pest management tools and techniques. For biological resources from aquatic environments, emphasis will be placed on essential biological functions, safe and environmentally friendly production systems and feeds of cultured species and on fisheries biology, dynamics of mixed fisheries, interactions between fisheries activities and the marine ecosystem and on fleet-based, regional and multi-annual management systems.

– Increased sustainability and competitiveness, while decreasing environmental impacts, in agriculture, forestry, fisheries and aquaculture through **research into and further development of agricultural production systems**, the development of new technologies, equipment, **research into new and improved monitoring systems**, **the development of** novel plants and production systems, the improvement of the scientific and technical basis of fisheries management, and a better understanding of the interaction between different systems (agriculture and forestry; fisheries and aquaculture) across a whole ecosystem approach. For land based biological resources, special emphasis will be placed on low input and organic production systems, improved management of resources and novel feeds, and novel **plant cultivation systems** with improved composition, resistance to stress, nutrient use efficiency, and architecture. This will be supported through research into **and cost/benefit analyses of** biosafety, co-existence and traceability of novel plants systems and products. Plant health will be improved through better understanding of ecology, biology of pests, diseases and other threats and support to controlling disease outbreaks and enhancing sustainable pest management tools and techniques, **. in particular the development of integrated protection, biological control and pesticides which are less harmful for the environment and for human health. Particular emphasis must be placed on the impact of climate change on the geographic distribution of agricultural pests, for which purpose a boost must be given to the creation of monitoring networks among European regions.** For biological resources from aquatic environments, emphasis will be placed on essential biological functions, safe and environmentally friendly production

systems and feeds of cultured species and on fisheries biology, dynamics of mixed fisheries, interactions between fisheries activities and the marine ecosystem and on fleet-based, regional and multi-annual management systems.

### *Justification*

*Research into and development of agricultural production systems should also find a place alongside important measures to increase sustainability and competitiveness of biotechnology.*

*It has emerged that the monitoring systems currently used are unable to ensure food safety. It would be sensible to carry out research at European level into new models.*

*Research should relate not only to plants themselves but also to cultivation systems if the intended objectives are to be achieved. Research into the coexistence between genetically modified and conventional plants should also tackle issues of economic viability and consumer wants.*

*Reference should be made to the various tools for the sustainable management of agricultural pests. Integrated protection and biological control, areas where research is still lacking, are crucial to the development of the multifunctional role of farming, especially organic farming.*

*Furthermore, account must be taken of the climate change we are currently experiencing, since this may lead to changes in the distribution areas of agricultural pests, for example the spread of southern pests to European regions. A European monitoring network should be set up to track developments in relation to such changes.*

### Amendment 6

#### Annex I, Themes, 2. Food, agriculture and biotechnology, Activities, paragraph 1, indent 3

– Optimised animal production and welfare, across agriculture, fisheries and aquaculture, *inter alia* through the exploitation of genetic knowledge, new breeding methods, improved understanding of animal physiology and behaviour and the better understanding and control of infectious animal diseases, including zoonoses. The latter will also be addressed by developing tools for monitoring, prevention and control, by underpinning and applied research on vaccines and diagnostics, studying the ecology of known or emerging infectious agents and other threats, including malicious acts, and impacts of different farming

– Optimised animal production and welfare, across agriculture, fisheries and aquaculture, *inter alia* through the exploitation of genetic knowledge, new breeding methods, improved understanding of animal physiology and behaviour and the better understanding and control of infectious animal diseases, including zoonoses ***and diseases linked to animal feed***. The latter will also be addressed by developing tools for monitoring, prevention and control, by underpinning and applied research on vaccines and diagnostics, studying the ecology of known or emerging infectious agents and other threats, including malicious

systems and climate. New knowledge for the safe disposal of animal waste and improved management of by-products will also be developed.

acts, and impacts of different farming systems and climate. ***In this context the aim should be to investigate adapting agriculture to the shift in climate zones.*** New knowledge for the safe disposal of animal waste and improved management of by-products will also be developed.

#### *Justification*

*Diseases linked to animal feed, such as BSE, should not be excluded from research.*

*It is important to investigate the effects of global changes such as the shift in climate zones and foster research into measures to adapt agricultural production.*

#### Amendment 7

Annex I, Themes, 2. Food, agriculture and biotechnology,  
Activities, paragraph 1, indent 4

- Providing the tools needed by policy makers and other actors to support the implementation of relevant strategies, policies and legislation and in particular to support the building of the European Knowledge Based Bio-Economy (KBBE) and the needs of rural and coastal development. The Common Fisheries Policy will be supported through the development of adaptive approaches supportive to a whole ecosystem approach for the harvesting of marine resources. Research for all policies will include socio-economic studies, comparative investigations of different farming systems, cost-effective fisheries management systems, the rearing of non-food animals, interactions with forestry and studies to improve rural and coastal livelihoods.

- Providing the tools needed by policy makers and other actors to support the implementation of relevant strategies, policies and legislation and in particular to support the building of the European Knowledge Based Bio-Economy (KBBE) and the needs of rural and coastal development, ***as well as the development of innovatory forest management mechanisms, techniques to prevent and fight forest fires and measures to combat agricultural erosion and drought. The Common Agricultural Policy, the Community's Animal Health Policy, the EU Forestry Strategy and the Common Fisheries Policy will be supported.*** The Common Fisheries Policy will be supported through the development of adaptive approaches supportive to a whole ecosystem approach for the harvesting of marine resources. Research for all policies will include socio-economic studies, ***rural-social research***, comparative investigations of different farming systems, cost-effective fisheries management systems, the rearing of non-food animals, interactions with forestry and studies to improve rural and coastal livelihoods.

### *Justification*

*Bearing in mind the tragic events which have occurred in southern Europe in the past two years, particularly the exceptional drought and fires, a boost should be given to international research and scientific cooperation in the field of forest management, preventing and fighting forest fires and minimising the effects of drought and agricultural erosion.*

*The Commission needs to be consequent as to link concrete activities to the approach taken. When referring in the approach part of theme 2 specifically to the contributions of research to the CAP, the Common Animal Health Policy, the EU forestry strategy and the CFP it is also necessary to link concrete activities and not only to the CFP.*

### Amendment 8

Annex I, Theme 2, Food, Agriculture and Biotechnology, Activities, Fork to farm: Food, health and well being, paragraph 2

Understanding dietary factors and habits as a major controllable factor in the development and reduction of occurrence of diet-related diseases and disorders. This will involve the development and application of nutrigenomics and systems biology, **and** the study of the interactions between nutrition, physiological and psychological functions. It could lead to reformulation of processed foods, and development of novel foods, dietetic foods and foods with nutritional and health claims. The investigation of traditional, local, and seasonal foods and diets will also be important to highlight the impact of certain foods and diets on health, and to develop integrated food guidance.

Understanding dietary factors and habits as a major controllable factor in the development and reduction of occurrence of diet-related diseases and disorders. This will involve the development and application of nutrigenomics and systems biology; **an integrated approach should focus particularly on** the study of the interactions between nutrition, physiological and psychological functions. It could lead to reformulation of processed foods, and development of novel foods, dietetic foods and foods with nutritional and health claims. The investigation of traditional, local, and seasonal foods and diets will also be important to highlight the impact of certain foods and diets on health, and to develop integrated food guidance.

### *Justification*

*A healthy diet should not be seen only as putting together the necessary nutrients and vitamins, but is a question of culture. Consequently, a healthy diet cannot be achieved only through ingredients but is above all a question of understanding and better eating habits.*

### Amendment 9

Annex I, Themes, 2. Food, agriculture and biotechnology, Activities, paragraph 2, indent 4

– Assuring chemical **and** microbiological safety **and** improving quality in the European food supply. This will include understanding the links between microbial

– Assuring **and improving** chemical, microbiological, **sensory and nutritional quality and** safety, **as well as** improving quality in the European food supply. This

ecology and food safety; developing methods and models addressing the integrity of the food supply chains; new detection methods, and technologies and tools for risk assessment, management, and communication, and enhance the understanding of risk perception.

will include understanding the links between microbial ecology and food safety; developing methods and models addressing the integrity of the food supply chains; ***devising a harmonised approach for the exchange of food data, tracking and tracing***; new detection methods, and technologies and tools for risk assessment, management, and communication, and enhance the understanding of risk perception.

#### *Justification*

*'Sensory and nutritional quality' stresses the positive impact on health and well-being.*

*Improved data processing and exchange, tracking and tracing enhance transparency and competitiveness in the food sector.*

#### Amendment 10

Article Annex I, Themes, 2. Food, agriculture and biotechnology, Activities, paragraph 2, indent 5

– Protecting both human health and the environment through a better understanding of the environmental impacts on and of food/feed chains. This will involve study of food contaminants and health outcomes, developing enhanced tools and methods for the assessment of impacts of food and feed chains on the environment. Assuring quality and the integrity of the food chain requires new models for commodity chain analysis and total food chain management concepts, including consumer aspects.

– Protecting both human health and the environment through a better understanding of the environmental impacts on and of food/feed chains. This will involve study of food contaminants and health outcomes, developing enhanced tools and methods for the assessment of impacts of food and feed chains on the environment. Assuring quality and the integrity of the food chain requires new models for commodity chain analysis and total food chain management concepts, including consumer aspects ***such as access to clear and reliable information.***

#### Amendment 11

Annex I, Theme 2, Food, Agriculture and Biotechnology, International cooperation, paragraph 2

Furthermore, multilateral co-operation will be carried out to address either challenges requiring broad international efforts, such as the dimension and complexity of systems biology in plants and micro-organisms, or to address global challenges and EU

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international commitments (security and safety of food and drinking water, global spread of animal diseases, equitable use of biodiversity, the restoration of world fisheries to Maximum Sustainable Yield by 2015 and the influence of/on climate change).

international commitments (security and safety of food and drinking water, global spread of animal diseases, equitable use of biodiversity, the restoration, ***in cooperation with the UN Food and Agriculture Organisation***, of world fisheries to Maximum Sustainable Yield by 2015 and the influence of/on climate change).

#### *Justification*

*The aim of restoring global fish stocks by 2015 is laudable but extremely ambitious. Priority should therefore be given to cooperation and coordination with international bodies such as the Food and Agricultural Organisation.*

## PROCEDURE

|   |   |
|---|---|
| <b>Title</b>  | Specific Programme “Cooperation” implementing the Seventh Framework Programme (2007-2013) of the European Community for research, technological development and demonstration activities  |
| <b>References</b>   | 2005/0185(CNS))   |
| <b>Committee responsible</b>                                      | ITRE  |
| <b>Opinion by</b><br>Date announced in plenary                    | AGRI<br>17.11.2005  |
| <b>Enhanced cooperation – date announced in plenary</b>           | --  |
| <b>Drafts(wo)man</b><br>Date appointed                            | Markus Pieper<br>23.11.2005   |
| <b>Previous drafts(wo)man</b>                                     | --  |
| <b>Discussed in committee</b>                                     | 25.1.2006      21.2.2006  |
| <b>Date adopted</b>   | 21.2.2006   |
| <b>Result of final vote</b>                                       | + :    31<br>- :    -<br>0 :    --  |
| <b>Members present for the final vote</b>                         | Thijs Berman, Niels Busk, Luis Manuel Capoulas Santos, Giuseppe Castiglione, Joseph Daul, Albert Deß, Michl Ebner, Carmen Fraga Estévez, Duarte Freitas, Jean-Claude Fruteau, Ioannis Gklavakis, Lutz Goepel, Friedrich-Wilhelm Graefe zu Baringdorf, Elisabeth Jeggle, Heinz Kindermann, Stéphane Le Foll, Albert Jan Maat, Diamanto Manolakou, Rosa Miguélez Ramos, Neil Parish, María Isabel Salinas García, Agnes Schierhuber, Willem Schuth, Czesław Adam Siekierski, Marc Tarabella, Jeffrey Titford, Kyösti Virrankoski, Andrzej Tomasz Zapalowski |
| <b>Substitute(s) present for the final vote</b>                   | Bernadette Bourzai, Markus Pieper, Zdzisław Zbigniew Podkański  |
| <b>Substitute(s) under Rule 178(2) present for the final vote</b> | --  |
| <b>Comments (available in one language only)</b>                  | --  |