REPORT


Committee on Industry, Research and Energy

Rapporteur: Teresa Riera Madurell
Symbols for procedures

* Consultation procedure
  majority of the votes cast

**I Cooperation procedure (first reading)
  majority of the votes cast

**II Cooperation procedure (second reading)
  majority of the votes cast, to approve the common position
  majority of Parliament’s component Members, to reject or amend
  the common position

*** Assent procedure
  majority of Parliament’s component Members except in cases
  covered by Articles 105, 107, 161 and 300 of the EC Treaty and
  Article 7 of the EU Treaty

***I Codecision procedure (first reading)
  majority of the votes cast

***II Codecision procedure (second reading)
  majority of the votes cast, to approve the common position
  majority of Parliament’s component Members, to reject or amend
  the common position

***III Codecision procedure (third reading)
  majority of the votes cast, to approve the joint text

(The type of procedure depends on the legal basis proposed by the
Commission.)

Amendments to a legislative text

In amendments by Parliament, amended text is highlighted in **bold italics**.
Highlighting in **normal italics** is an indication for the relevant departments
showing parts of the legislative text for which a correction is proposed, to
assist preparation of the final text (for instance, obvious errors or omissions
in a given language version). These suggested corrections are subject to the
agreement of the departments concerned.)
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAFT EUROPEAN PARLIAMENT LEGISLATIVE RESOLUTION</td>
<td>5</td>
</tr>
<tr>
<td>EXPLANATORY STATEMENT</td>
<td>1021</td>
</tr>
<tr>
<td>OPINION OF THE COMMITTEE ON BUDGETS</td>
<td>10603</td>
</tr>
<tr>
<td>OPINION OF THE COMMITTEE ON TRANSPORT AND TOURISM</td>
<td>112</td>
</tr>
<tr>
<td>OPINION OF THE COMMITTEE ON AGRICULTURE AND RURAL DEVELOPMENT</td>
<td>130</td>
</tr>
<tr>
<td>OPINION OF THE COMMITTEE ON CULTURE AND EDUCATION</td>
<td>142</td>
</tr>
<tr>
<td>PROCEDURE</td>
<td>154</td>
</tr>
</tbody>
</table>
DRAFT EUROPEAN PARLIAMENT LEGISLATIVE RESOLUTION


(Consultation procedure)

The European Parliament,

– having regard to the Commission proposal to the Council (COM (2005)0440)¹,
– having regard to Article 166 of the EC Treaty, pursuant to which the Council consulted Parliament (C6-0381/2005),
– having regard to Rule 51 of its Rules of Procedure,
– having regard to the report of the Committee on Industry, Research and Energy and the opinions of the Committee on Budgets, the Committee on Transport and Tourism, the Committee on Agriculture and Rural Development, the Committee on Culture and Education and (A6-0379/2006),

1. Approves the Commission proposal as amended;

2. Considers that the indicative financial reference amount indicated in the legislative proposal must be compatible with the ceiling of heading 1a of the new multiannual financial framework (MFF) and points out that the annual amount will be decided within the annual budgetary procedure in accordance with the provisions of point 38 of the IIA of 17 May 2006;

3. Calls on the Commission to alter its proposal accordingly, pursuant to Article 250(2) of the EC Treaty;

4. Calls on the Council to notify Parliament if it intends to depart from the text approved by Parliament;

5. Asks the Council to consult Parliament again if it intends to amend the Commission proposal substantially;

6. Instructs its President to forward its position to the Council and Commission.

_________________________________________  _________________________________________
Commission Text  Parliament Amendments

¹ Not yet published in OJ.

RR\637505EN.doc  5/155  PE 368.072v01-00
(4) The Framework Programme should complement the activities carried out in the Member States as well as other Community actions that are necessary for the overall strategic effort for the implementation of the Lisbon objectives, alongside in particular with those on structural funds, agriculture, education, training, competitiveness and innovation, industry, health, consumer protection, employment, energy, transport and environment.

Justification

The activities funded under the specific programme should be closely linked to those conducted under other programmes and actions, so as to ensure that they complement each other and that the various EU policies related to this area are coordinated.

Synergies should also be sought with information society actions.

(4a) Under the Specific Programme “Cooperation”, special consideration should be given to multidisciplinarity and interdisciplinarity, in accordance with the recommendations of the European Union Research Advisory Group (EURAB 04.009 of April 2004) and the European Parliament resolution of 10 March 2005 on science and technology - Guidelines for future European Union policy to support research.

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Justification

The specific programme cannot ignore something that is a central concern in scientific and technological circles, and special measures should therefore be taken to ensure greater multidisciplinarity and interdisciplinarity in programmes and projects.

Amendment 3
Recital 4 b (new)

(4b) This Specific Programme should focus in particular on the transfer of knowledge, results and technologies from the public research sector to businesses, particularly SMEs, and on mechanisms to ensure that business needs are passed on to research teams in an effective and coordinated manner.

Justification

One of the specific programme's objectives is to make the European economy more competitive. It is therefore important for the results of research promoted under the programme and performed by public bodies to be used by business to improve products, processes and so on. New mechanisms and incentives need to be introduced and existing ones improved in order to ensure that the knowledge, capacity and technologies transferred are known to and assimilated and used by businesses, particularly SMEs.

Amendment 4
Recital 5

(5) Innovation and SME-related activities supported under this Framework Programme should be complementary to those undertaken under the Framework Programme for Competitiveness and Innovation.

(5) The Specific Programme “Cooperation” should focus in particular on ensuring appropriate involvement by SMEs in all programme actions and projects. Maximum synergy and complementarity should be sought between innovation and SME-related activities supported under this Specific Programme and those undertaken under the Framework Programme for Competitiveness and Innovation and other Community programmes and actions.
Justification

SMEs are the cornerstone of European industry, but the difficulties experienced by such businesses in carrying out innovation activities and, in particular, R&D work, are well known. More practical and more focused measures should therefore be taken to encourage SMEs to take part in the programmes.

Amendment 5
Recital 5 a (new)

(5a) The Specific Programme
“Cooperation” should take due account of the important role played by regions in implementing the European Research Area, as is acknowledged by the Commission in its communication on the regional dimension of the European Research Area (COM(2001)0549).

Justification

Commission communication COM(2001)0549 states that 'regional research and innovation policies and initiatives may provide the essential ingredients for the emergence of agglomeration economies and of successful industrial clusters'. Given that the key message of the communication is that referring to the relevant Community policies, which include research, efforts must be made to interconnect regions into the fabric of a truly European Research Area.

Amendment 6
Recital 7

(7) This Specific Programme should contribute to the grant to the European Investment Bank for the constitution of a “Risk-Sharing Finance Facility” in order to improve access to EIB loans.

Similarly, the Specific Programme should provide an equal amount of financial support with a view to covering the risks arising from SME involvement in projects, sparing them the need to provide bank guarantees.
**Justification**

*Owing to their specific characteristics and structures, SMEs are the type of business most in need of simpler procedures for gaining access to EIB funding.*

**Amendment 7**  
**Recital 8**

(8) As provided for under Article 170 of the Treaty, the Community has concluded a number of international agreements in the field of research and efforts should be made to strengthen international research cooperation with a view to further integrating the Community into the worldwide research community. Therefore, this Specific Programme should be open to the participation of countries having concluded agreements to this effect and should be also open on the project level, and on the basis of mutual benefit, to the participation of entities from third countries and of international organisations for scientific cooperation.

**Amendment 8**  
**Recital 9**

(9) Research activities carried out within this programme should respect fundamental ethical principles, including those which are reflected in the Charter of Fundamental Rights of the European Union, and confirm the civic and humanistic value of research, with due regard for ethical and cultural diversity.
Justification

More than ever, research is experiencing tension – sometimes fruitful and sometimes destructive – between its impressive advances and society and its economic, political and cultural structure. We should take time to consider the issues raised by ethics and by the many cultural points of view in the world of research.

Amendment 9
Recital 9 a (new)

(9a) This Specific Programme should take due account of the important role of universities in ensuring truly excellent performance in scientific and technological research, in the establishment of the European Research Area, as is acknowledged in the Commission communication on the role of universities in the Europe of knowledge (COM(2003)0058) and in contributing to the development of a knowledge society.

Amendment 10
Recital 10

(10) The Framework Programme should contribute towards promoting sustainable development.

(10) The Specific Programme “Cooperation” and the Seventh Framework Programme as a whole should contribute towards promoting sustainable development.

Justification

This amendment seeks to extend the scope of this recital, so as to ensure that all aspects covered in both the specific programme and the seventh framework programme are viewed in the light of the sustainable development objective, as provided for in the Lisbon Strategy.

Amendment 11
Recital 10 a (new)

(10a) The Specific Programme
“Cooperation” should contribute to scientific and technological dissemination, with a view to bringing science and technology closer to society.

Justification

Science and technology are an important part of 21st-Century culture, so the activities coming under the programme should help to raise society's awareness of science.

Amendment 12
Recital 11


(11) The Commission should undertake to ensure sound financial management of the Framework Programme and the Specific Programme “Cooperation” and the implementation of both should be ensured in the simplest and most effective manner possible, as well as transparency, clarity and ease of access for all participants, in compliance with Council Regulation (EC, Euratom) No 1605/2002 of 25 June 2002 on the Financial Regulation applicable to the general budget of the European Communities, Commission Regulation (EC, Euratom) No 2342/2002 of 23 December 2002 laying down detailed rules for implementation of the Financial Regulation and any future amendments.

Justification

This principle requires clarification in the recitals.

Amendment 13
Article 2

The Specific Programme shall support the activities for “Cooperation” supporting the whole range of research actions carried out
in trans-national cooperation in the following thematic areas:

(a) Health;
(b) Food, Agriculture and Biotechnology;
(c) Information and Communication Technologies;
(d) Nanosciences, Nanotechnologies, Materials and new Production Technologies;
(e) Energy;
(f) Environment (including Climate Change);
(g) Transport (including Aeronautics);
(h) Socio-economic Sciences and Humanities;
(i) Security and Space.

Amendment 14
Article 3 a, paragraph 1 (new)

1. The Commission shall take all necessary steps to verify that the actions financed are carried out effectively and in compliance with the provisions of Regulation (EC/Euratom) No 1605/2002.

Amendment 15
Article 3 a, paragraph 2 (new)

2. The overall administrative expenditure of the programme, including internal and management expenditure for the executive agency which it is proposed to set up, should be proportional to the activities undertaken under the programme and is subject to the decision of the budgetary and legislative authorities.

Justification

The appropriations allocated to the Executive Agency should comply with the provisions of the Code of conduct on the setting up of an Executive agency and Council Regulation N°58/2003 laying down the statute for executive agencies to be entrusted with certain tasks in
the management of Community programs. This will ensure appropriate financing of the actions of the programme.

Amendment 16
Article 3 a, paragraph 3 (new)

3. Budget appropriations shall be used in accordance with the principle of sound financial management, namely in accordance with the principles of economy, efficiency and effectiveness, as well as the principle of proportionality.

Amendment 17
Article 4, paragraph 1

1. All research activities carried out under the Specific Programme shall be carried out in compliance with fundamental ethical principles.

Amendment 18
Article 5 a (new)

Article 5a

The Commission shall provide prior information to the budgetary authority whenever it intends to depart from the breakdown of expenditure stated in the remarks in and annex to the annual budget.

Justification

This procedure was introduced as a result of an agreement between the Committee on Budgets and the Commission in October 1999. The draftswoman considers that the procedure should be maintained to improve the follow-up of the use of funds in the specific programmes of FP7.
Amendment 19
Article 6, paragraph 3

3. The work programme will specify the criteria on which proposals for indirect actions under the funding schemes shall be evaluated and projects selected. The criteria will be those of excellence, impact and implementation and within this framework additional requirements, weightings and thresholds may be further specified or complemented in the work programme.

Justification

*Research groups should be able to apply simultaneously for projects at national and international level without being excluded for that reason, since this is in fact improving the European Research Area.*

Amendment 20
Article 7, paragraph 2

2. The *procedure* laid down in Article 8(2) shall apply for the adoption of:

Amendment 21
Article 8

1. The Commission shall be assisted by a Committee.
2. *Where reference is made to this paragraph, the management procedure laid down in Article 4 of Decision 1999/468/EC shall apply, in compliance with Article 7(3) thereof.*
3. Where reference is made to this paragraph, *Articles 5 and 7 of Decision 1999/468/EC shall apply.*

2. The *regulatory procedure with scrutiny* laid down in Article 8(3) shall apply for the adoption of:

2. *The Commission shall regularly inform the Committee of the overall progress of the implementation of the Specific Programme, and shall provide it with information about all RTD actions funded under the programme.*
3. Where reference is made to this paragraph, *Article 5a (1)-(4) and Article 7 of Decision 1999/468/EC shall apply having regard to the provisions of Article 8*
4. The period provided for in Articles 4(3) and 5(6) of Decision 1999/468/EC shall be two months.

5. The Commission shall regularly inform the Committee of the overall progress of the implementation of the Specific Programme, and shall provide it with information about all RTD actions funded under this programme.

Amendment 22
Annex I, Introduction, paragraph 2

The overarching aim is to contribute to sustainable development within the context of promoting research at the highest level of excellence. The primary purpose of research should be to increase knowledge. The overarching aim is to contribute to an increase in knowledge and also to sustainable development within the context of promoting research at the highest level of excellence. Research is a fundamental instrument for encouraging social inclusion, active citizenship and participation, economic growth, competitiveness, health and quality of life.

Justification

Research and science are more and more frequently intertwined with competitiveness, the economy or inputs, and the benefits for industry. Scientific research must be understood primarily as an activity to increase knowledge.

Amendment 23
Annex I, Introduction, paragraph 2 a (new)

In the case of university-industry partnerships, the Commission will undertake to disseminate the results of basic and applied research, where these are of public interest and directed to the common good.

Justification

To fulfil the undertakings of the Lisbon Agenda, the priority for European research should be to spread and democratise knowledge. In projects funded under the Seventh Framework
Programme which entail cooperation between industry and universities, it should be guaranteed both that there will be research on subjects which do not have direct industrial spin-offs and that research results will be accessible to and usable by the public at large, especially when such results make a contribution to the improvement and development of society.

Amendment 24
Annex I, Introduction, paragraph 3, point (9) and (9a) (new)

(9) Security and space.  (9) Security;
(9a) Space.

Justification

Despite the interconnections between space and security, these two subjects should be treated as two separate and well-defined priorities.

Amendment 25
Annex I, Introduction, paragraph 5

The principle of sustainable development and gender equality will be duly taken into account. Furthermore, considerations of the ethical, social, legal and wider cultural aspects of the research to be undertaken and its potential applications, as well as socio-economic impacts of scientific and technological development and foresight, will where relevant form a part of the activities under this Specific Programme.

The principle of scientific and technological excellence must underlie all of FP7. Furthermore, considerations of the ethical, social, legal and wider cultural aspects of the research to be undertaken and its potential applications, as well as socio-economic impacts of scientific and technological development and foresight, will where relevant form a part of the activities under this Specific Programme.

Amendment 26
Annex I, paragraph 5 a (new)

Special attention will be paid to enhancing cohesion between EU Member State and regions in the sphere of science and technology, with particular reference to measures to reduce the technology gap between various areas by selective boosting of the technological capacities of undertakings at all levels. To this end, Framework Programme activities will be coordinated with the action lines of other Commission policies, particularly
regional policy and competitiveness and innovation policy.

Justification

Policies to ensure cohesion between geographical areas, which are of fundamental importance to the EU, should inform all other European policies. Technological disparities - the technology gap - between EU Member States and regions are generally more pronounced than economic disparities, or disparities in the quality of life. It is essential for the Cooperation programme to help reduce disparities in the technological capacities of undertakings in EU Member States and regions and for joint action to be taken under the programme and regional policy to this end.

Amendment 27
Annex I, heading 'Pluridisciplinary and cross-thematic research, including joint calls', paragraph 1

Special attention will be paid to priority scientific areas which cut across themes, such as marine sciences and technologies. Pluridisciplinarity will be encouraged by joint cross-thematic approaches to research and technology subjects relevant to more than one theme. Such cross thematic approaches will be implemented, among others, through:

– The use of joint calls between themes where a research topic is clearly relevant to the activities under each of the respective themes;
– The special emphasis within the “emerging needs” activity for cross-disciplinary research;
– The use of external advice from a broad range of disciplines and backgrounds for establishing the work programme;
– For policy relevant research, through ensuring coherence with EU polices;

Special attention will be paid to priority scientific and technological areas which cut across themes, such as marine sciences, tourism-related technologies, green engineering and chemistry, and environmental health. Pluridisciplinarity, including mission-oriented research, will be encouraged by joint cross-thematic approaches to research and technology subjects relevant to more than one theme. Such cross thematic approaches will be implemented, inter alia, through:

– The use of joint calls between themes where a research topic is clearly relevant to the activities under any of the other respective themes;
– The special emphasis within the “emerging needs” activity for cross-disciplinary research;
– The use of advice from researchers of recognised prestige from a broad range of disciplines and backgrounds, for establishing the work programme;
– For policy relevant research, through ensuring coherence with EU polices;
Amendment 28

Annex I, heading 'Pluridisciplinary and cross-thematic research, including joint calls',
second paragraph

Coordination between the themes in this Specific Programme and the actions under other specific programmes of the 7th Framework Programme, such as those on research infrastructures in the “Capacities” Specific Programme, will be ensured by the European Commission.

Coordination between the themes in this Specific Programme and the actions under other specific programmes of the 7th Framework Programme, such as those on research infrastructures in the “Capacities” Specific Programme, will be ensured by the European Commission. The work programme will specify the activities that are to be subject to special coordination with those coming under other specific programmes and will establish the mechanisms required in order for such coordination to be effective.

Justification

Special attention needs to be paid to coordinating Specific Programme research activities with the activities coming under the other specific programmes that will facilitate their implementation, dissemination and use.

Amendment 29

Annex I, heading ‘Adaptation to evolving needs and opportunities’, paragraph 1

The continued industrial relevance of the themes will be ensured by relying, among other sources, on the work of the various “European Technology Platforms”. This Specific Programme will thereby contribute to the implementation of the Strategic Research Agendas established and developed by the European Technology Platforms where these present genuine European added value. The broad research needs identified in available Strategic Research Agendas are already well reflected across the nine themes identified below. The more detailed incorporation of their technical content will be reflected subsequently when formulating the detailed work programme for specific calls for

The continued industrial relevance of the themes, and industry’s continued participation in them, will be ensured by relying, among other sources, on the work of the various “European Technology Platforms”. This Specific Programme, together with the contributions made by industry, will thereby contribute to the implementation of the Strategic Research Agendas established and developed by the European Technology Platforms where these present genuine European added value. The broad research needs identified in available Strategic Research Agendas are already well reflected across the nine themes identified below. The more detailed incorporation of their technical content will be reflected
proposals. Subsequently when formulating the detailed work programme for specific calls for proposals.

Justification

The value of the European Technology Platforms lies in the opportunity for joining forces.

Amendment 30
Annex I, heading ‘Adaptation to evolving needs and opportunities’, paragraph 2

The continued relevance of the themes to the formulation, implementation and assessment of EU policies and regulations will also be ensured. This concerns policy areas such as those of health, safety, consumer protection, energy, the environment, development aid, fisheries, maritime affairs, agriculture, animal health and welfare, transport, education and training, information society and media, employment, social affairs, cohesion, and justice and home affairs, along with pre-normative and co-normative research relevant to improving the quality of standards and their implementation. In this context, platforms that bring together stakeholders with the research community to consider strategic research agendas relevant to social, environmental or other policy areas may play a role.

Justification

Standards have to be interoperable in order to increase competition.

Amendment 31
Annex I, heading "Adaptation to evolving needs and opportunities", bullet 1, introductory part

Emerging needs: through specific support for research proposals aiming at identifying or further exploring, in a given field and/or at the intersection of several disciplines, new scientific and technological opportunities, in particular linked with a potential for interoperability and competition and the quality of standards and their implementation. In this context, platforms that bring together stakeholders with the research community to consider strategic research agendas relevant to social, environmental or other policy areas may play a role.

Emerging needs: through specific support for research proposals aiming at identifying or further exploring, in a given field and/or at the intersection of several disciplines, new scientific and technological opportunities, in particular linked with a potential for
significant breakthroughs. This will be implemented through:

significant breakthroughs or direct applications. This will be implemented through:

Justification

We need to ensure that the potential for innovative applications of scientific and technological opportunities be exploited directly, as soon as it emerges from ongoing research, without necessarily waiting for the research project to conclude.

Amendment 32

Annex I, heading "Adaptation to evolving needs and opportunities", bullet 1, indent 1

– Open, “bottom up” research on topics identified by researchers themselves to develop new scientific and technological opportunities (“Adventure actions”) or to assess new discoveries or newly-observed phenomena which could indicate risks or problems to society (“Insight” actions);

– Open, “bottom up” research on topics identified by researchers themselves to develop new scientific and technological opportunities (“Adventure actions”), or to identify at an early stage developments and trends with significant prospective applications (“Foresight actions”), or to assess new discoveries or newly-observed phenomena which could indicate risks or problems to society (“Insight” actions);

Justification

Foresight research activities are gaining momentum because researchers feel increasingly obliged to consider the wider aspects as well as the potential risks and impacts of their research. Strategic thought by researchers at a "bottom-up" level should be encouraged since early-stage anticipation of future scientific and technological developments and of prospective applications will give an enormous competitive advantage to the EU.

Amendment 33

Annex I, heading ' Dissemination, knowledge transfer and broader engagement', first paragraph, introduction

In order to strengthen the diffusion and use of the output of EU research, the dissemination of knowledge and transfer of results, including to policy makers, will be supported in all thematic areas, including through the funding of networking/brokerage initiatives, seminars and events, assistance by external experts and electronic information services. This will be implemented in each thematic area by means of:

In order to strengthen the diffusion, use and impact of the output of EU research, the dissemination and transfer of knowledge and the use of results, including diffusion to policy makers, will be supported in all thematic areas, including through the funding of networking/brokerage initiatives, seminars and events, assistance by external experts and information and consultancy services. This will be implemented in each thematic area by means of:
area by means of:

**Justification**

*With a view to ensuring that good use if made of research, reference needs to be made to the use of results.*

**Amendment 34**

Annex I, heading 'Dissemination, knowledge transfer and broader engagement', first paragraph, second indent

- Offering targeted assistance to projects and consortia to provide them with access to the necessary skills to optimise the use of results;

- Offering targeted assistance to projects and consortia to provide them with access to the necessary skills *and resources*, particularly financial resources, to optimise the use of results;

**Justification**

*Efforts need to be made to reduce barriers encountered by researchers seeking to gain access to the funding required to commercialise their results.*

**Amendment 35**

Annex I, heading ‘Dissemination, knowledge transfer and broader engagement’, paragraph 1, indent 3

– Specific dissemination actions which take a proactive approach to disseminating results from across a range of projects, including those from previous Framework Programmes and other research programmes, and which target specific sectors or sets of stakeholders *as* potential users;

– Specific dissemination actions which take a proactive approach to disseminating results from across a range of projects, including those from previous Framework Programmes and other research programmes, and which target specific sectors or sets of stakeholders, *with special emphasis on* potential users and pre-university teachers;

**Justification**

*To encourage careers in research, it is a good idea to compare scientific results with those who assist or obstruct them: primary- and secondary-level teachers.*
Amendment 36
Annex I, heading ‘Dissemination, knowledge transfer and broader engagement’, paragraph 1, indent 5

– CORDIS services to foster the dissemination of knowledge and the exploitation of research results;

Justification
The Commission’s Cordis Portal for communications must be easy for users to access.

Amendment 37
Annex I, heading "Dissemination, knowledge transfer and broader engagement", paragraph 1, indent 6

– Initiatives to foster dialogue and debate on scientific issues and research results with a broader public beyond the research community.

Justification
Providing Civil Society Organisations (or CSOs) the possibility to access scientific expertise will contribute to facilitating acceptance and understanding of new technologies by the public.

Amendment 38
Annex I, heading ‘Joint Technology Initiatives’, paragraph 1

In a limited number of cases, the scope of a RTD objective and the scale of the resources involved justify setting up long term public-private partnerships in the form of Joint Technology Initiatives. These initiatives, mainly resulting from the work of European Technology Platforms and covering one or a small number of selected aspects of research in their field, will combine private sector investment and national and European public funding, including grant funding from the Research Framework Programme and loan finance from the European Investment Bank. Joint Technology Initiatives will be
decided on the basis of separate proposals (e.g. on the basis of Article 171 of the Treaty).

Justification

The platforms needing choosing must follow from independently analysing the need of each platform to exist.

Amendment 39
Annex I, heading "Co-ordination of non-Community research programmes", paragraph 1

The action undertaken in this field will make use of two main tools: the ERA-NET scheme and the participation of the Community in jointly implemented national research programmes (Treaty Article 169). The action will also be used to enhance the complementarity and synergy between the Framework Programme and activities carried out in the framework of intergovernmental structures such as EUREKA, EIROforum and COST. Financial support for the administration and coordination activities of COST will be provided so that COST can continue to contribute to coordination and exchanges between nationally funded research teams.

Amendment 40
Annex I, heading ‘International co-operation’, paragraph 1

International cooperation actions will support an international Science and Technology policy that has two interdependent objectives:

International cooperation actions will support an international Science and Technology policy that has three interdependent objectives:

– To create the basis for research activities and capacities in the developing countries, consolidate and strengthen the bodies responsible: universities and public and private centres for the training of
– To support and promote European competitiveness through strategic research partnerships with third countries including highly industrialised and emerging economies in science and technology by engaging the best third country scientists to work in and with Europe.

– To address specific problems that third countries face or that have a global character, on the basis of mutual interest and mutual benefit.

researchers;

– To support and promote European competitiveness through strategic research partnerships with third countries including highly industrialised and emerging economies in science and technology by engaging the best third country scientists to work in and with Europe.

– To address specific problems that third countries face or that have a global character, on the basis of mutual interest and mutual benefit.

**Justification**

*There is a need to consolidate and improve the bodies responsible for research, to create a propitious climate for researchers and investment.*

Amendment 41
Annex I, heading 'International co-operation', paragraph 1, indent 1

- *To support and promote European competitiveness* through strategic research partnerships with third countries including highly industrialised and emerging economies *in science and technology* by engaging the best third country scientists to work in and with Europe.

- *To address specific problems that third countries face or that have a global character, on the basis of mutual interest and mutual benefit.*

**Justification**

*We need to encourage the European research system to be open to foreign researchers, creating the optimum conditions to enable them, once they have returned to their countries of origin, to continue to cooperate with Europe and to put the results of joint research to good use. In addition, in projects involving international cooperation, whether between countries or between mixed research teams, priorities will have to be taken into account in a fair and balanced manner.*

Amendment 42
Annex I, heading 'International co-operation', paragraph 1, indent 2

- *To address specific problems that third countries face or that have a global character, on the basis of mutual interest and mutual benefit.*
character, on the basis of mutual interest and mutual benefit. character, enhancing the concept of worldwide cooperation and the sharing of knowledge and information.

Amendment 43
Annex I, heading 'International co-operation', paragraph 2

The international scientific cooperation policy of the EU will stress and develop cooperation to generate, share and use knowledge through equitable research partnerships taking into account the country, regional and socio-economic context and knowledge base of partner countries. The strategic approach is to enhance EU competitiveness and global sustainable development through such partnerships between the EU and third countries at bilateral, regional and global levels based on mutual interest and benefit. To this end the EU’s role as a global player should be also promoted through multilateral international research programmes. The international cooperation actions supported will be connected to mainstream policy issues in order to support fulfilling international commitments of the EU and contribute to sharing European values, competitiveness, socio-economic progress, environmental protection and welfare under the umbrella of global sustainable development.

The international scientific cooperation policy of the EU will stress and develop cooperation to generate, share and use knowledge through equitable research partnerships taking into account the international, country, regional and socio-economic context, knowledge base and European priorities of partner countries. The strategic approach is to enhance EU competitiveness and global sustainable development through such partnerships between the EU and third countries at bilateral, regional and global levels based on the public and collective interest. To this end the EU’s role as a global player should be also promoted through multilateral international research programmes. The international cooperation actions supported will be connected to mainstream policy issues in order to support fulfilling international commitments of the EU and contribute to sharing results so as to enhance competitiveness, socio-economic progress, environmental protection and welfare under the umbrella of global sustainable development.

Amendment 44
Annex I, heading "International co-operation", paragraph 3, bullet 2

Specific co-operation actions in each thematic area dedicated to third countries in the case of mutual interest in co-operating on particular topics. The identification of specific needs and priorities will be closely associated with relevant bilateral co-operation agreements and with ongoing multilateral and bi-regional dialogues

Specific co-operation actions in each thematic area dedicated to third countries in the case of mutual interest in co-operating on particular topics. The identification of specific needs and priorities will be closely associated with relevant bilateral co-operation agreements and with ongoing multilateral and bi-regional dialogues
between the EU and these countries or groups of countries. Priorities will be identified based on the particular needs, potential and level of economic development in the region or country. To this end, an international cooperation strategy and implementation plan will be developed with specific targeted actions within or across the themes, e.g. in health, agriculture, sanitation, water, food security, social cohesion, energy, environment, fisheries, aquaculture and natural resources, sustainable economic policy and information and communication technologies. These actions will serve as privileged tools for implementing the cooperation between the EU and these countries. **Such actions are, in particular, actions aiming at reinforcing the research capacities and cooperative capacities of candidate, neighbourhood, and developing and emerging countries.** The actions will be the subject of targeted calls and particular attention will be paid to facilitating access of the relevant third countries, notably developing countries, to the actions.

between the EU and these countries or groups of countries. Priorities will be identified based on **mutual interest and mutual benefit and on** the particular needs, potential and level of economic development in the region or country. To this end, an international cooperation strategy and implementation plan will be developed with specific targeted actions within or across the themes, e.g. in health, **in particular neglected diseases**, agriculture, sanitation, water, food security, social cohesion, energy, environment, fisheries, aquaculture and natural resources, sustainable economic policy and information and communication technologies. These actions will serve as privileged tools for implementing the cooperation between the EU and these countries. **As well as serving fields of mutual interest, such actions also include:** actions aiming at reinforcing the research capacities and cooperative capacities of candidate, neighbourhood, and developing and emerging countries. The actions will be the subject of targeted calls and particular attention will be paid to facilitating access of the relevant third countries, notably developing countries, to the actions.

**Justification**

*It should be clear that international specific cooperation actions under the Specific Programme "Cooperation" shall cover in particular research fields of mutual interest for the EU and third countries.*

**Amendment 45**

Annex I, 'Themes', section 1 ('Health'), subsection 'Approach ', first paragraph a (new)

*To this end, the utmost complementarity and synergy will be sought with other Community programmes and actions and with national and regional research programmes in the various Member States.*
Justification

All programmes (whether at Community level or Member-State level) must be properly coordinated with a view to combining efforts rather than duplicating them.

Amendment 46
Annex I, part 'Themes', section 1 ('Health'), subsection 'Approach', paragraph 3

Gender aspects *in research* will be **considered and integrated in the projects whenever appropriate.** Special attention will be given to communicating research outcomes and engaging in dialogue with civil society, in particular with patient groups, at the earliest possible stage, of new developments arising from biomedical and genetics research. A wide dissemination and use of the results will also be assured.

Gender aspects will be **taken into account and incorporated into projects where appropriate.** The risk factors, biological processes, clinical manifestations, consequences, and treatment involved in diseases are often not the same for men and women. Furthermore, there are diseases which affect only, or are more prevalent in, women or men (one such example is fibromyalgia/chronic fatigue syndrome, which affects far greater numbers of women than men). All the activities to be financed in connection with this theme should therefore allow for the possibility of differentiation in the related research protocols, methodologies, and analyses of findings. Special attention will be given to communicating research outcomes and engaging in dialogue with civil society, in particular with patient groups, at the earliest possible stage, of new developments arising from biomedical and genetics research. A wide dissemination and use of the results will also be assured.

Justification

*There is an urgent need for gender-mainstreaming in the formulation and implementation of health policies. Chronic fatigue and fibromyalgia are 'invisible' diseases because of the difficulties involved in diagnosing them and the lack of resources allocated to research and treatment. 90% of sufferers are women and these may thus be termed gender-specific diseases.*

*There is an urgent need to investigate the origins and causes of these diseases and improve the treatment of them. It is therefore essential for research funding to be increased.*
Amendment 47
Annex I, part 'Themes', section 1 ('Health'), subsection 'Activities', first heading
('Biotechnology, generic tools and technologies for human health'), indent 1

- High-throughput research: to develop new research tools for modern biology that will enhance significantly data generation and improve data and specimen (biobanks) standardisation, acquisition and analysis. The focus will be on new technologies for: sequencing; gene expression, genotyping and phenotyping; structural genomics; bioinformatics and systems biology; other “omics”.

- High-throughput research: to develop new research tools for modern biology that will enhance significantly data generation and improve data and specimen (biobanks) standardisation, acquisition and experimental and biocomputational analysis. The focus will be on new technologies for: sequencing using rapid, economic and widely available methods; gene expression, genotyping and phenotyping; structural genomics; bioinformatics and systems biology, including super computing for structural modelling; other “omics”.

Justification

Data must be analysed both experimentally and using all available biocomputational possibilities and resources, which open up a whole new range of opportunities.

Structural biology has largely dealt so far with "still images" of biological molecules. However, biological molecules are highly dynamic, and their internal mobility accounts for a large part of their biological function. The modelling of macromolecule dynamics requires vast amounts of computer power, that can only be achieved via supercomputers and massively parallel computing.

The full potential of biotechnology can only be reached if the instruments at its disposal are not excessively costly and are accessible for the development of research. New approaches to rapid DNA identification will reduce the cost of mapping millions of molecules, providing valuable data for combating diseases, particularly at individual level. This research should therefore start immediately.

Amendment 48
Annex I, part ‘Themes’, section 1 (‘Health’), subsection ‘Activities’, heading 1
‘Biotechnology, generic tools and technologies for human health’, indent 4

– Predicting suitability, safety and efficacy of therapies: to develop and validate the parameters, tools, methods and standards needed for bringing to the patient safe and effective new biomedicines [for conventional medicines, these issues will be addressed through the proposed Joint

– Predicting suitability, safety and efficacy of therapies: to develop and validate the parameters, tools, methods and standards needed for bringing to the patient safe and effective new biomedicines [for conventional medicines, these issues will be addressed through the proposed Joint
Technology Initiative on Innovative Medicines]. The focus will be on approaches such as pharmacogenomics, in silico, in vitro (including alternatives to animal testing) and in vivo methods and models.

Justification

This process makes an essential contribution to measuring the effects of therapies on the immune system. It determines the effectiveness of therapies for autoimmune diseases and those relating to the immune system. It also makes it possible to measure how safe medicines are for the immune system.

Amendment 49

Annex I, part ‘Themes’, section 1 (‘Health’), subsection ‘Activities’, heading 2 ‘Translating research for human health’, subheading 1, bullet 1

Large scale data gathering: to use high-throughput technologies to generate data for elucidating the function of genes and gene products and their interactions in complex networks. The focus will be on: genomics; proteomics; population genetics; comparative and functional genomics.

Amendment 50

Annex I, part ‘Themes’, section 1 (‘Health’), subsection ‘Activities’, heading 2 (‘Translating research for human health’), subheading 2, bullet 1

Brain and brain-related diseases: to better understand the integrated structure and dynamics of the brain, and to study brain diseases and search for new therapies. The focus will be to explore brain functions, from molecules to cognition, and to address neurological and psychiatric diseases and disorders, including regenerative and restorative therapeutic approaches.
regenerative and restorative therapeutic approaches and technologies.

Amendment 51
Annex I, part "Themes", section 1 ("Health"), subsection "Activities", heading 2 ‘Translating research for human health’, subheading 2, bullet 2

Human development and ageing: to better understand the process of life-long development and healthy ageing. The focus will be on the study of human and model systems, including interactions with factors such as environment, behaviour and gender.

Human development and ageing: to better understand the process of life-long development and healthy ageing. The focus will be on the study of human and model and cell systems, including interactions with factors such as environment, behaviour, culture and gender with the aim of alleviating the problems of daily life in old age, and from synaptic activity to neurodegeneration, using, inter alia, clinical or preclinical functional or molecular imaging approaches.

Or. en

Amendment 52
Annex I, part 'Themes', section 1 ('Health'), subsection 'Activities', heading 2 ('Translating research for human health'), subheading 4, bullets 1 and 1 a (new)

Cancer: the focus will be on disease aetiology; identifying and validating drug targets and biological markers that aid in the prevention, early diagnosis and treatment; and assessing the effectiveness of prognostic, diagnostic and therapeutic interventions.

Cancer: the focus will be on disease aetiology, epidemiological research, new medicines/therapies and risk factors; identifying and validating environmental determinants, drug targets and biological markers that aid in the prevention, early diagnosis and treatment; assessing the effectiveness of prognostic, diagnostic and therapeutic interventions, and age-related degenerative disorders.

Amendment 53

Diabetes and obesity: for the former, the focus will be on aetologies of the different types of diabetes, and their related prevention and treatment. For the later, the

Diabetes and obesity: for the former, the focus will be on aetologies of the different types of diabetes, and their related prevention and treatment, including cell
focus will be on multidisciplinary approaches including genetics, life style and epidemiology.

replacement therapy. For the latter, the focus will be on multidisciplinary approaches including genetics, biochemistry and physiology (evaluated using non invasive approaches such as molecular and functional imaging), life style and epidemiology. For both diabetes and obesity emphasis will be placed on juvenile diseases and factors operating in childhood.

Justification

Cellular imaging, with a tight monitoring of cells fate and functionality, is a top priority in the field of cellular (stem cells) transplantation and in the preclinical phase of several diseases.

Cell replacement is currently the only approach that leads to complete insulin independence in type 1 diabetes. Development of interventional trials in childhood, with the aim to prevent/cure type 1 diabetes, is a top priority of research in the setting of type 1 diabetes.

Amendment 54

Annex I, 'Themes', section 1 ('Health'), subsection 'Activities', second heading ('Translating research for human health'), subheading 4, point 3 a (new)

Rheumatic diseases: the focus will be on aetiology, early diagnosis and biological markers for rheumatic diseases and treatment, with particular emphasis on inflammatory rheumatic diseases.

Justification

Approximately one third of Europe's population (around 100 million people) suffer from rheumatic diseases at some point in their lives. There is an urgent need to step up research and provide support for cross-border cooperation with a view to gaining a better understanding of the cause of such diseases and finding new and better remedies.

Written Declaration No 389 adopted by the EP on 13 October 2005 drew attention to the importance of research into rheumatic diseases.

Amendment 55


Other chronic diseases: the focus will be on non-lethal diseases with a high impact on the quality of life at old age such as functional
and sensory impairment and other chronic diseases (e.g. rheumatoid diseases).

Justification

Europe is entering into a period of accelerating population ageing.

As more and more people live longer, the number of people affected by diseases of aging, including Alzheimer Disease (AD), will continue to grow and at the moment is estimated that nearly half of all people age 85 and older have some form of dementia. Given our aging population, the magnitude of AD as a European health problem is steadily increasing. This makes the disease an urgent research priority.

Interventions that could delay the onset of AD and other forms of dementia would have an enormous positive public health impact because they would greatly reduce the number of people with the disease. This in turn would reduce the social, personal and financial costs associated with caring for them.

Amendment 56

Other diseases: respiratory diseases, neglected diseases and population-based studies to investigate emerging risk factors.

Amendment 57

Research on tissue regeneration: the focus will be on research into tissue regeneration, such as skin and heart tissue regeneration, with the aim of understanding the mechanisms underlying regenerative processes and identifying innovative approaches to gene and cell therapies.

Justification

Experimental evidence has accumulated in recent years showing the occurrence of stem cells and tissue regeneration (though limited) in tissues that were previously thought to be lacking this property, such as brain and heart.
It will be of paramount importance to fuel research in this direction, to maintain an edge that Europe currently has over competing countries. Reaching a molecular understanding of tissue regeneration in mammals will soon lead to new cellular therapy protocols for common diseases, still associated with high mortality and morbidity and consequent high social and economic costs. Moreover research in this area will stimulate the development of new biomaterials that also represent a crucial bio-medical research area.

Amendment 58
Annex I, 'Themes', section 1 ('Health'), subsection 'Activities', third heading ('Optimising the delivery of health care to European citizens'), indent 1

- Enhanced health promotion and disease prevention: to provide evidence for the best public health measures in terms of life styles and interventions at different levels and in different contexts. Focus will be on the wider determinants of health and how they interact at both the individual and community level (e.g. diet, stress, tobacco and other substances, physical activity, cultural context, socio-economic and environmental factors). In particular, mental health will be addressed in a life-course perspective.

Justification

Factors such as the quality of life or nutritional habits of individuals and communities have a determining effect on human health and interact in a positive or negative way with other factors. It is therefore essential for them to be taken into account in health-related research.

Amendment 59
Annex I, part 'Themes', section 1 ('Health'), subsection 'Activities', heading 3 ('Optimising the delivery of health care to European citizens'), indent 2

- Translating clinical research into clinical practice including better use of medicines, and appropriate use of behavioural and organisational interventions and health therapies and technologies. Special attention will be given to patient safety: to identify the best clinical practice; to understand decision making in clinical settings in primary and specialised care; and to foster applications of evidence-based medicine and patient empowerment. Focus will be on the benchmarking of strategies; investigating

- Translating the results of clinical research into clinical practice including better use of medicines (e.g. with a view to avoiding the development of antibiotic resistance), and appropriate use of behavioural, organisational and public health system interventions and health therapies and technologies. Special attention will be given to patient safety, including the side-effects of medicines; to identify the best clinical practice; to understand decision making in clinical settings in primary and specialised
outcomes of different interventions including medicines, taking into consideration pharmacovigilance evidence, specificities of the patient (e.g. genetic susceptibility, age, gender and adherence) and cost benefits.

care; and to foster applications of evidence-based medicine and patient empowerment with a view to enhancing patients' personal and social autonomy. Focus will be on the benchmarking of strategies; investigating outcomes of different interventions including medicines and new health technologies, taking into consideration pharmacovigilance evidence, specificities of the patient (e.g. genetic susceptibility, age, gender and adherence) and cost benefits in terms of health, quality of life and good practice.

Amendment 60

– Quality, solidarity and sustainability of health systems; to provide a basis for countries to adapt their health systems in the light of experience of others, taking into account the importance of national contexts and population characteristics (ageing, mobility, migration, education, socioeconomic status and the changing world of work etc). Focus will be on organisational, financial and regulatory aspects of health systems, their implementation and their outcomes in terms of effectiveness, efficiency and equity. Special attention will be paid to investment issues and human resources.

– Quality, solidarity and sustainability of health systems; to provide a basis for countries to adapt their health systems in the light of experience of others, taking into account the importance of national contexts and population characteristics (ageing, mobility, migration, education, socioeconomic status and the changing world of work etc). Focus will be on organisational, financial and regulatory aspects of health systems, their implementation and their outcomes in terms of effectiveness, efficiency and equity. Special attention will be paid to investment issues and human resources and access to health care for disadvantaged people, including disabled persons.

Justification

Research in respect to how health care reaches disadvantaged groups needs to be investigated.

Amendment 61
Annex I, 'Themes', section 1 ('Health'), subsection 'Activities', third heading ('Optimising the delivery of health care to European citizens'), indent 3 a (new)

- Appropriate use of new technologies and
therapies. Long-term safety and monitoring of the large-scale use of new medical technologies (including equipment), and advanced therapies that ensure, in particular, a high level of public health protection.

Justification

In line with the framework programme, the specific programme should also cover the appropriate use of new technologies and therapies.

Amendment 62
Annex I, part "Themes", section 2 ("Food, Agriculture and Biotechnology"), subsection "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.

Observable first and foremost in small-sized industries, 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.

Amendment 63
Annex I, part ‘Themes’, section 2 (‘Food, Agriculture and Biotechnology’), subsection ‘Activities’, first heading (‘Sustainable production and management of ...’), indent 1 a (new)

– Investigating biodiversity and its molecular characterisation is aimed at its protection, not only at identifying new ways
for its exploitation. Environmental protection and preservation is a key element of the sustainable management of biological resources. Integration with the “Environment” theme should be sought.

Justification

The loss of diversity is advancing rapidly and human factories cannot replace what we are losing.

It is important develop and implement DNA taxonomy in a laboratory equipped with modern tools of biotechnology and bioinformatics would speed up inventorying of biological diversity and open new opportunities for ecological research and promote biodiversity protection.

Amendment 64

Annex I, part 'Themes', section 2 ('Food, Agriculture and Biotechnology'), subsection 'Activities', first heading ('Sustainable production and management of ...'), 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,

- Increased sustainability and competitiveness, while safeguarding consumer health and 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 and crop management, the latter through selected plant breeding, plant health and optimised production systems, and a better understanding of the interaction between different systems (agriculture and forestry; fisheries and aquaculture) across a whole ecosystem approach. The preservation of native ecosystems, the development of biocontrol agents and the microbiological dimension of biodiversity and metagenomics will be promoted. For land based biological resources, special emphasis will be placed on low input and organic production systems, monitoring and assessment of the impact of genetically modified organisms on the environment and human health, and sustainable, competitive and multi-faceted agriculture and forestry. Improved management of resources and novel feeds, and novel plants.
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.

(crops and trees) with improved composition, resistance to stress, nutrient use efficiency, and architecture will also be promoted. This will be supported through research into biosafety, co-existence and traceability of novel plants systems and products. Plant health and crop protection will be improved through better understanding of ecology, biology of pests, diseases, weeds and other threats and support to controlling disease outbreaks and enhancing sustainable pest and weed management tools and techniques. Improved methods will be developed for the monitoring, preservation and enhancement of soil fertility. 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.

Amendment 65
Annex I, part 'Themes', section 2 ('Food, Agriculture and Biotechnology'), subsection 'Activities', first heading ('Sustainable production and management of ...'), indent 3 and 3 a

- 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

- Optimised animal production, health 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 their pathogenic mechanisms 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...
impacts of different farming systems and climate. New knowledge for the safe disposal of animal waste and improved management of by-products will also be developed.

or emerging infectious agents and other threats, including malicious 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. **Account will be taken of other threats to the sustainability and safety of food production, such as the possible effects of climate change on production processes.**

**Justification**

*In connection with the control of zoonoses, it is extremely useful to apply criteria relating to the prevention and detection of outbreaks and the mechanisms for the development of the underlying viruses. There is thus ample justification for specific measures to study the development and behaviour of pathogenic agents.*

*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 66**

Annex I, part 'Themes', section 2 ('Food, agriculture and biotechnology'), subsection Activities, first heading ('Sustainable production and management of ...'), 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

- 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
and studies to improve rural and coastal livelihoods. 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 67
Annex I, 'Themes', section 2 ('Food, Agriculture and Biotechnology'), subsection 'Activities', second heading ('Fork to farm: Food, health and well being'), heading

Fork to farm: Food, health and well being (Does not affect English version).

Justification
(Does not affect English version).

Amendment 68
Annex I, part 'Themes', section 2 ('Food, Agriculture and Biotechnology'), subsection 'Activities', heading 2 ('Fork to farm: Food, health and well being'), indent 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

- Understanding dietary factors and habits as a major controllable factor in the development and reduction of occurrence of diet-related diseases and disorders, including obesity (in children and adults) and allergies; nutrition in connection with disease prevention, including knowledge
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.

of the healthiness, properties and components of foods. 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**

*This amendment brings within the scope of the 7th Framework Programme the various diet and healthy eating initiatives being promoted by the Union by means of other instruments such as the public health programmes.*

**Amendment 69**

Annex I, 'Themes', section 2 ('Food, Agriculture and Biotechnology'), subsection 'Activities', second heading ('Fork to farm: Food, health and well being'), indent 3

- Optimising innovation in the European food industry through the integration of advanced technologies into traditional food production, key process technologies to enhance the functionality of food, the development and demonstration of high-tech, eco-efficient processing and packaging, smart control applications and more efficient management of by-products, wastes and energy. New research will also develop sustainable and novel technologies for animal feed, including safe feed processing formulations and for feed quality control.

- Optimising innovation in the European food industry through the integration of advanced technologies into traditional food production, key process technologies to enhance the functionality of food, the development of new ingredients and products, preservation methods and technologies and organoleptic aspects in the production of foods and new food components, the development and demonstration of high-tech, eco-efficient processing and packaging, smart control applications and more efficient management of by-products, wastes and energy. New research will also develop sustainable and novel technologies for animal feed, including safe feed processing formulations and for feed quality control.
Justification

In food production, innovation must go further than merely growing or manufacturing new products. Improvements can and must be made in the basic engineering of foods and food components, through the discovery of new formulas. At the same time, research into production process-related technologies needs to be continued (to find better packaging and storage techniques, etc.).

Amendment 70
Annex I, part ‘Themes’, section 2 (‘Food, Agriculture and Biotechnology’), subsection ‘Activities’, heading 2 (‘Fork to farm: Food, health and well being’), 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.

Justification

It is necessary to develop novel methods of ensuring traceability in order to promote consumer confidence. The same applies to the possible human health consequences of the animal feeds and medication in use.

Amendment 71
Annex I, ‘Themes’, section 2 (‘Food, Agriculture and Biotechnology’), subsection ‘International cooperation’, first paragraph 1

International co-operation is a priority aspect for Food, Agriculture and Biotechnology research and will be strongly encouraged throughout the entire area. Research of specific interest for developing countries will be supported, taking into account Millennium

International co-operation is a priority aspect for Food, Agriculture and Biotechnology research and will be strongly encouraged throughout the entire area. Research of specific interest for developing countries will be supported, taking into account Millennium
development goals and already ongoing activities. Specific actions will be undertaken to foster co-operation with priority partner regions and countries - particularly those involved in bi-regional dialogues and bilateral S&T agreements as well as neighbourhood countries and emerging economies and developing countries.

**Justification**

*In view of the solidarity and development-cooperation component contained in this paragraph, attention should be drawn to the importance of exporting our knowledge and technologies relating to the management of soils and water resources.*

**Amendment 72**

Annex I, part 'Themes', section 2 ('Food, Agriculture and Biotechnology'), subsection '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 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).

**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.*

**Amendment 73**

Annex I, part ‘Themes’, section 3 (‘Information and Communication Technologies’), subsection ‘Objective’

Improve the competitiveness of European...
industry and enable Europe to master and shape the future developments of Information and Communication Technologies (ICT) so that the demands of its society and economy are met. Activities will strengthen Europe’s scientific and technology base and ensure its global leadership in ICT, help drive and stimulate innovation through ICT use and ensure that ICT progress is rapidly transformed into benefits for Europe’s citizens, businesses, industry and governments.

Justification

Narrowing the digital divide is one of the challenges facing the new knowledge-based society and economy which is being built. It is the public authorities’ job to ensure that the information society develops without any risk of a digital divide. The various EU instruments and programmes must be used to help achieve this objective, hence one of the priority objectives of the activities relating to the Seventh Framework Programme must be the narrowing of the digital divide.

Amendment 74
Annex I, part 'Themes', section 3 ('Information and Communication Technologies'), subsection 'Introduction', paragraph 1

Information and communication technologies (ICT) play a unique, proven role in fostering innovation, creativity and competitiveness of all industry and service sectors. They are essential for addressing key societal challenges and modernising public services and they underpin progress in all science and technology fields. Europe must therefore master and shape the future developments of ICT and ensure that ICT-based services and products are taken up and used to deliver the maximum possible benefits for citizens and businesses.

Information and communication technologies (ICT) play a unique, proven role in fostering innovation, creativity and competitiveness of all industry and service sectors. ICT can also play an important part in disseminating know-how, knowledge and research results and ensuring access thereto. They are essential for addressing key societal challenges and modernising public services and they underpin progress in all science and technology fields. They help to improve and diversify access to information and should
foster active citizen participation. Europe must therefore encourage the future developments of ICT in the direction of openness and inclusivity and ensure that interoperable and reliable ICT-based services and products are taken up and used to deliver the maximum possible benefits for citizens and businesses.

Amendment 75
Annex I, part ‘Themes’, section 3 (‘Information and Communication Technologies’), subsection ‘Introduction’, paragraph 4

The ICT theme prioritises strategic research around key technology pillars, ensures end-to-end integration of technologies and provides the knowledge and the means to develop a wide range of innovative ICT applications. The activities will leverage industrial and technological advance in the ICT sector and improve the competitive edge of important ICT-intensive sectors – both through innovative high-value ICT-based products and services and from improvements of organisational processes in businesses and administrations alike. The theme will also support other policies of the European Union, by mobilising ICT to meet public and societal demands.

Amendment 76

Activities will cover collaboration and networking actions, support to Joint Technology Initiatives – including selected aspects of research in the areas of Nanoelectronics Technologies and Embedded Computing Systems – and national programme co-ordination initiatives – including in the area of Ambient Assisted Living. The priorities of the activities will include topics relying, among other sources, on the work of

Activities will cover collaboration and networking actions, and could support Joint Technology Initiatives and national programme co-ordination initiatives (including nanotechnology, embedded systems and Ambient Assisted Living). The priorities of the activities will include topics relying, among other sources, on the work of European Technology Platforms. Thematic synergies will also be developed with related activities in other Specific
European Technology Platforms. Thematic synergies will also be developed with related activities in other Specific Programmes. Programmes. Maximum synergy and complementarity will also be sought with other Community programmes and initiatives, in particular with the Structural Funds, the Competitiveness and Innovation Programme, the i-2010 initiative and the Member States’ national and regional ICT-related programmes.

Justification

All programmes (whether at Community level or Member-State level) must be properly coordinated with a view to combining efforts rather than duplicating them.

Amendment 77
Annex I, part "Themes", section 3 ("Information and Communication Technologies"), subsection "Activities", first heading ("ICT Technology Pillars"), indent 1

- Nano-electronics, photonics and integrated micro/nano-systems: process, device and design technologies to improve size, density, performance, energy efficiency, manufacturing and cost-effectiveness for components, systems-on-a-chip, systems-in-a-package and integrated systems; basic photonic components for wide range of applications; high-performance/high-density data storage systems; very large area/highly integrated display solutions; sensing, actuating, vision and imaging devices; ultra low power systems, alternative energy sources/storage; heterogeneous technologies/systems integration; multi-functional integrated micro-nano-bio-info systems; large-area electronics; integration in different materials/objects; interfacing with living organisms; (self-)assembly of molecules or atoms into stable structures.

- Nano-electronics, photonics and integrated micro/nano-systems: process, device, design and testing technologies and methodologies to improve size, density, performance, energy efficiency, manufacturing and cost-effectiveness of components, systems-on-a-chip, systems-in-a-package and integrated systems; advanced wireless components and sub-systems; basic photonic components to generate, manipulate and detect light for wide range of applications including ultra fast components; RF systems; high-performance/high-density data storage systems; very large area and/or highly integrated flexible display solutions; sensing, actuating, vision and imaging devices; ultra low power systems, alternative energy sources/storage; heterogeneous technologies/systems integration; smart systems; multi-functional integrated micro-nano-bio-info systems; large-area electronics; integration in different materials/objects; interfacing with living organisms; (self-)assembly of molecules or atoms into stable structures.
Amendment 78
Annex I, part 'Themes', section 3 ('Information and Communication Technologies'), subsection 'Activities', first heading ('ICT Technology Pillars'), indent 2

- Ubiquitous and unlimited capacity communication networks: cost-effective mobile and broadband network technologies and systems including terrestrial and satellite networks; convergence of different fixed, mobile, wireless and broadcasting networks spanning from the personal area to the regional and global area; interoperability of wired and wireless communications services and applications, management of networked resources, service reconfigurability; complex networking of ad-hoc intelligent multimedia devices, sensors and microchips.

- Ubiquitous and large capacity communication networks: reconfigurable and flexible mobile and broadband network technologies systems and architectures. including terrestrial and satellite networks; convergence of different fixed, mobile, wireless and broadcasting networks and services spanning from the personal area to the regional and global area; service-distribution infrastructure and architectures; interoperability of wired and wireless communications services and applications, management of networked resources (including efficiency and quality of services [QoS]), service reconfigurability; complex networking of ad-hoc intelligent multimedia devices, sensors and microchips.

Justification

Convergence should apply not just to networks but also to services, since the general public wishes to receive services irrespective of the infrastructure used.

With regard to network-resource management, particular attention must be paid to ensuring that the service-quality policy is followed in the event of moderate network congestion.

Efficiency is desirable in any situation, hence attention should always be drawn to it.

Amendment 79
Annex I, part "Themes", section 3 "Information and Communication Technologies", subsection "Activities", first heading ('ICT Technology Pillars'), indent 3

– Embedded systems, computing and control: more powerful, secure, distributed, reliable and efficient hardware/software systems that can perceive, control and adapt to their environment while optimising the use of resources; methods and tools for system modelling, design and engineering to master complexity; open composable architectures and scale-free platforms, middleware and distributed operating systems to enable truly seamless

– Embedded systems, computing and control: more powerful, secure, distributed, reliable and efficient hardware/software systems that can perceive, control and adapt to their environment while optimising the use of resources; methods and tools for system modelling, analysis, design, engineering and validation to master complexity; open composable architectures and scale-free platforms, middleware and distributed operating systems to enable truly
collaborative and ambient intelligent environments for sensing, actuation, computing, communication, storage, and service delivery; computing architectures incorporating heterogeneous, networked and reconfigurable components including compilation, programming and run-time support; control of large-scale, distributed, uncertain systems.

seamless collaborative and ambient intelligent environments for sensing, actuation, computing, communication, storage, and service delivery; computing architectures incorporating heterogeneous, networked and reconfigurable components including compilation, programming and run-time support; control of large-scale, distributed, uncertain systems, high-performance computing (hardware and software).

Amendment 80
Annex I, part 'Themes', section 3 ('Information and Communication Technologies'), subsection 'Activities', first heading ('ICT Technology Pillars'), indent 4

- Software, Grids, security and dependability: technologies, tools and methods for dynamic and trusted software, architectures and middleware systems that underpin knowledge-intensive services, including their provision as utilities; service-oriented, interoperable and scale-free infrastructures, grid-like virtualisation of resources, network-centric operating systems; open platforms and collaborative approaches for development of software, services and systems; composition tools; mastering emergent behaviours of complex systems; improving dependability and resilience of large-scale, distributed and intermittently connected systems and services; secure and trusted systems and services, including privacy-aware access control and authentication, dynamic security and trust policies, dependability and trust meta-models.

- Software, Grids, service-distribution architecture, security and dependability: technologies, tools and methods for developing and validating high-quality dynamic and trusted software, architectures and middleware systems that underpin knowledge-intensive services, including their provision as utilities and for high-quality distribution services and technologies, tools and methods for development and validation; service-oriented, interoperable and scale-free infrastructures, grid-like virtualisation of resources, including domain-specific platforms, network-centric operating systems; open source software; open platforms and collaborative approaches for development and validation of software including free, libre and open source software, services and systems; composition tools including programming languages; mastering emergent behaviours of complex systems; improving dependability and resilience of large-scale, distributed and intermittently connected systems and services; secure and trusted systems and services, including privacy-aware access control and authentication, dynamic security and trust policies,
dependability and trust meta-models; 

*introduction of software models in industry.*

**Justification**

*One of the burning issues in software engineering is that of the metrics required to measure the quality of a computer development, for which reason this must be incorporated into this research field.*

*The theoretical aspect of the topics mentioned is important - but so is the transfer thereof to industry.*

**Amendment 81**

Annex I, 'Themes', section 3 ('Information and Communication Technologies'), subsection 'Activities', first heading ('ICT Technology Pillars'), fifth indent

- Knowledge, cognitive and learning systems: methods and techniques to acquire and interpret, represent and personalise, navigate and retrieve, share and deliver knowledge, recognizing the semantic relationships in content for use by humans and machines; artificial systems that perceive, interpret and evaluate information and that can cooperate, act autonomously and learn; theories and experiments that move beyond incremental advances benefiting from insights into natural cognition, in particular learning and memory, also for the purpose of advancing systems for human learning.

- Knowledge, cognitive and learning systems: methods and techniques to acquire and interpret, represent and personalise, navigate and retrieve, share and deliver knowledge, recognizing the semantic relationships in content for use by humans and machines, *with distributed knowledge management*; artificial systems that perceive, interpret and evaluate information and that can cooperate, act autonomously and learn; theories and experiments that move beyond incremental advances benefiting from insights into natural cognition, in particular learning and memory, also for the purpose of advancing systems for human learning.

**Justification**

*Since communications infrastructure is distributed, knowledge management must be too, for which reason this should be specifically mentioned under this research heading.*
Amendment 82
Annex I, part "Themes", section 3 "Information and Communication Technologies", subsection "Activities", first heading ('ICT Technology Pillars'), indent 6

– Simulation, visualisation, interaction and mixed realities: tools for modelling, simulation, visualisation, interaction, virtual, augmented and mixed reality and their integration in end-to-end environments; tools for innovative design and for creativity in products, services and digital audio-visual media; more natural, intuitive and easy-to-use interfaces and new ways to interact with technology, machines, devices and other artefacts; multilingual and automatic machine translation systems.

Amendment 83
Annex I, Part "Themes", subtitle "Information and Communication Technologies ", heading "Activities", first heading ('ICT Technology Pillars'), indent 6 a (new)

– Mobile systems: the transition towards fourth generation mobile systems and beyond, and related breakthrough technologies in digital transmissions and antennas.

Justification
Fourth-generation systems have reached a good level of studies and definition in the Japanese context, whereas Europe is lagging some way behind.

Amendment 84
Annex I, part 'Themes', section 3 ('Information and Communication Technologies'), subsection 'Activities', second heading ('Integration of Technologies'), indent 2

– Home environments: communication, monitoring, control and assistance of the home, buildings and public spaces; seamless interoperability and use of all devices taking account of cost efficiency, affordability and usability; new services and new forms of interactive digital content and services; access to information

Home environments: communication, monitoring, control and assistance of the home, buildings and public spaces; seamless interoperability and use of all devices taking account of cost efficiency, affordability, usability and safety; new services (including ones relating to entertainment) and new forms of
and management of knowledge. interactive digital content and services; access to information and management of knowledge.

Justification

[The first paragraph of this Justification does not apply to the English version.]

Areas relating to entertainment content must not be omitted from this field.

Amendment 85

Annex I, part 'Themes', section 3 ('Information and Communication Technologies'), subsection 'Activities', third heading ('Applications Research'), indent 1, sub-indent 1

- for health: personal non-obtrusive systems that enable citizens to manage their well-being such as wearable or implantable monitoring devices and autonomous systems for supporting a healthy state; emerging techniques such as molecular imaging for improved prevention and individualised medicine; health knowledge discovery and application in clinical practice; modelling and simulation of organ functions; micro- and nano-robotic devices for minimally invasive surgical and therapeutic applications;

- for health: personal non-obtrusive systems that enable citizens to manage their well-being such as wearable or implantable monitoring devices with communication capabilities and autonomous systems for supporting a healthy state; emerging techniques such as molecular imaging for improved prevention and individualised medicine; health knowledge discovery and application in clinical practice; modelling and simulation of organ functions; micro- and nano-robotic devices for minimally invasive surgical and therapeutic applications; remote assistance and remote monitoring technologies for the chronically ill and for elderly people; computer aided detection and clinical decision support systems that lead to more reliable diagnosis and an improved workflow, eventually leading to disease specific expert systems taking an integral carecycle approach, and exploiting accumulated patient data, and model based disease knowledge through data mining, bioinformatics, and systems biology; enterprise IT systems leading to increased efficiency and reduced medical error in the hospital and in secondary care facilities;
**Justification**

The results of measurements taken will have to be sent confidentially to a monitoring centre where a health professional can analyse them. The research, development and innovation cycle therefore needs to be completed.

The ageing of the population calls for research into and the development of new methods which will reduce pressure on hospitals and at the same time improve people's quality of life without reducing the level of assistance which they receive.

Amendment 86

Annex I, part 'Themes', section 3 ('Information and Communication Technologies'), subsection 'Activities', third heading ('Applications Research'), indent 1, sub-indent 2

- for governments: use of ICT in an interdisciplinary approach in public administrations combined with organisational change and new skills in order to deliver innovative, citizen-centric services for all; advanced ICT based research and solutions to improve democratic and participatory processes and the performance and quality of public sector services, interaction with and between administrations and governments, and support legislative and policy development processes in all stages of democracy;

- for governments: use of ICT in an interdisciplinary approach in public administrations combined with organisational change, **re-engineering processes** and new skills in order to deliver innovative, citizen-centric services for all; advanced ICT based research and solutions to improve democratic and participatory processes (**including e-democracy**) and the performance and quality of public sector services, interaction with and between administrations and governments, and support legislative and policy development processes in all stages of democracy;

**Justification**

ICTs can and should be used to promote support for democracy. In this area, e-democracy facilitates participation by the general public, has unlimited cover, enables data to be gathered and information to be exchanged more quickly, and does not involve bureaucracy.

Amendment 87

Annex I, part "Themes", section 3 ("Information and Communication Technologies"), subsection "Activities", third heading ("Applications Research"), indent 1, subindent 3

- for inclusion: to empower individuals and their communities and improve equal participation of all citizens in the information society, while preventing digital divides due to disability, low skills, poverty, geographic isolation, culture, gender or age, inter alia through support to assistive

- for inclusion: to empower individuals and their communities and improve equal participation of all citizens in the information society, while preventing digital divides due to disability, low skills, poverty, geographic isolation, culture, gender or age, inter alia through support to assistive
technology, promoting independent living, increasing e-skills, and developing products and services designed-for-all; technology, promoting independent living (e.g. through home healthcare technologies and services), increasing e-skills, and developing products and services designed-for-all;

Amendment 88
Annex I, part "Themes", section 3 ("Information and Communication Technologies"), subsection "Activities", third heading ('Applications Research'), indent 1, subindent 4

- for mobility: integrated ICT-based safety systems for vehicles based on open, secure and dependable architectures and interfaces; interoperable co-operative systems for transport efficiency and safety, based on communication between vehicles and with the transport infrastructure and integrating accurate and robust location technologies; personalised, location-aware info-mobility and multi-modal services, including intelligent service solutions for tourism;

- for mobility: integrated ICT-based safety systems for vehicles based on open, secure and dependable architectures and interfaces; interoperable co-operative systems for efficient, safe and environment-friendly transport, based on communication between vehicles and with the transport infrastructure and integrating accurate and robust location and navigation technologies; personalised, location-aware info-mobility and multi-modal services, including intelligent service solutions for tourism;

Amendment 89
Annex I, part "Themes", section 3 ("Information and Communication Technologies"), subsection "Activities", third heading ('Applications Research'), indent 1, subindent 5 a (new)

- for culture: transfer of ICT solutions to deploy the economic potential in the cultural field (including cultural heritage, regional development, tourism) and promote employment in these areas; partnerships between public organisations (at local, regional and national level) and private organisations (in particular, SMEs) will be considered.

(This amendment replaces the AM 680 to the Draft Report of Jerzy Buzek on the 7th Framework Programme)

Amendment 90
Annex I, part "Themes", section 3 ("Information and Communication Technologies"), subsection "Activities", third heading ('Applications Research'), indent 1 a (new)

- new business models for ICT: conceiving and defining new business models for ICT by working jointly with those themes where
ICT will play a fundamental role in changing the approach to production and services (e.g. transport, health, energy, environment). The projects originated through this joint research should be tested in specific situations. The joint efforts should be supported through the cross-thematic approach mentioned in Annex 1.

Justification

New opportunities are arising for ICT in conjunction with emerging socio-economic and environmental problems. In particular, the transport, health and energy sectors may benefit by a diffuse application of ICT technologies. In order to make possible these new applications, new business models and value chains have to be defined to encourage investments in the related innovation initiatives.

Amendment 91
Annex I, part "Themes", section 3 ("Information and Communication Technologies"), subsection "Activities", third heading ('Applications Research'), indent 2, subindent 1

– novel forms of interactive, non-linear and self-adaptive content; creativity and enriched user-experience; cross-media content customisation and delivery; combining all-digital content production and management with emerging semantic technologies; user-oriented use, access to and creation of content;

– novel forms of interactive, non-linear and self-adaptive content, including for entertainment and for design purposes; creativity and enriched user-experience; cross-media content customisation and delivery; combining all-digital content production and management with emerging semantic technologies; user-oriented use, access to and creation of content;

Amendment 92
Annex I, part 'Themes', section 3 ('Applications Research'), subsection 'Activities', third heading ('Applications Research'), indent 2, subindent 2 a (new)

– protection, conservation and enhancement of cultural heritage, including human habitat: technologies for the environmentally sound and sustainable management of the human environment, including the built environment, urban areas and landscape, as well as for the protection, conservation and optimal use and integration of the cultural heritage, including environmental impact assessment, models and tools for risk
evaluation, advanced and non-destructive techniques for damage diagnosis, new products and methodologies for restoration, mitigation and adaptation strategies for the sustainable management of both movable and immovable cultural assets;

Amendment 93
Annex I, part "Themes", section 3 ("Information and Communication Technologies"), subsection "Activities", third heading ('Applications Research'), indent 2, subindent 3

- intelligent services for access to cultural heritage in digital form; tools for communities to create new cultural memory based on living heritage; methods and tools for preservation of digital content; making digital objects usable by future users whilst keeping authenticity and integrity of their original creation and context of use.

Amendment 94
Annex I, part 'Themes', section 3 ("Information and Communication Technologies"), subsection 'Activities', third heading ('Applications Research'), indent 3, subindent 1

– dynamic, network-oriented business systems for product and service creation and delivery; decentralised control and management of intelligent items; digital business ecosystems, in particular software solutions adaptable to the needs of small- and medium-sized organisations; collaboration services for distributed workspaces; augmented group presence, group management and sharing support;

Amendment 95
Annex I, part 'Themes', section 3 ("Information and Communication Technologies"), subsection 'Activities', third heading ('Applications Research'), indent 3, subindent 2

– manufacturing: networked intelligent controls for high-precision manufacturing

– dynamic, network-oriented business systems for product and service creation and delivery; decentralised control and management of intelligent items; digital business ecosystems, in particular software solutions adaptable to the needs of small- and medium-sized organisations; collaboration services for distributed context-aware workspaces; augmented group presence, group management and sharing support; knowledge sharing and interactive services;
and low-resource utilisation; wireless automation and logistics for rapid plant reconfiguration; integrated environments for modelling, simulation, presentation and virtual production; manufacturing technologies for miniaturised ICT systems and for systems interwoven with all kinds of materials and objects.

high-precision manufacturing and low-resource utilisation; wireless automation and logistics for rapid plant reconfiguration; integrated environments for modelling, simulation, \textit{optimisation}, presentation and virtual production; manufacturing technologies for miniaturised ICT systems and for systems interwoven with all kinds of materials and objects.

Amendment 96
Annex I, Part 'Themes', subtitle 'Information and Communication Technologies', heading 'Activities', third heading ('Applications Research'), indent 2 a (new)

\textit{– Real-time monitoring of business management and performance: effective and productive support for managerial decisions, monitoring, collection and processing of data;}

\textit{Justification}

It is important to promote the use of ICT in business management.

Amendment 97
Annex I, part 'Themes', section 3 ('Information and Communication Technologies'), subsection 'Activities', third heading ('Applications Research'), indent 4, subindent 1

\textit{– tools supporting the trust and confidence of ICT and its applications; multiple and federated identity management systems; authentication and authorization techniques; systems meeting privacy needs deriving from new technological developments; rights and asset management; tools to protect against cyber threats.}

\textit{– tools supporting the trust and confidence of ICT and its applications; multiple and federated identity management systems; authentication and \textit{authorisation} techniques; systems meeting privacy needs deriving from new technological developments; rights and asset management; tools to protect against spam and cyber threats.}

\textit{Justification}

\textit{Spam has gone from occasional nuisance to major problem, since it has increased enormously in volume and complexity. Its cost to business and to the efficient operation of electronic communications is escalating. Anti-spam solutions grow outdated in vertiginous rhythms. EU needs to promote the development of appropriate technological tools to stop this phenomenon.}
Amendment 98
Annex I, part 'Themes', section 3 ('Information and Communication Technologies'), subsection ('Responding to emerging needs and unforeseen policy needs'), paragraph 1

A Future and Emerging Technologies activity will attract and foster trans-disciplinary research excellence in emerging ICT-related research domains. Foci include: exploring the new miniaturisation and computing frontiers including for example the exploitation of quantum effects; harnessing the complexity of networked computing and communication systems; exploring new concepts of and experimenting with intelligent systems for new personalised products and services.

Amendment 99
Annex I, part 'Themes', section 4 ('Nanosciences, Nanotechnologies, Materials and new Production Technologies'), subsection 'Approach', first paragraph

To enhance its competitiveness, European industry needs radical innovations. It must concentrate its capabilities on high-added-value products and technologies to meet customer requirements, as well as environmental, health and other societal expectations. Research is integral to meeting these competing challenges.

Amendment 100
Annex I, Part 'Themes', section 4 ('Nanosciences, Nanotechnologies, Materials and new Production Technologies'), subsection 'Approach', paragraph 2

A key element of this theme is the effective integration of nanotechnology, materials sciences and new production methods so as to achieve and maximise the impacts for industrial transformation and, at the same time, supporting sustainable production and consumption. The theme will support all industrial activities operating in synergy with other themes. Applications in all sectors and areas will be supported and this includes materials sciences, high
performance manufacturing and process technologies, nanobiotechnology or nanoelectronics. improve its position in a strongly competitive global context.

**Justification**

The area covered by this theme is enormous. Experience with the 6th FRP shows the need to give greater priority to the nanoscience and nanotechnology dimension, in order to avoid over-subscription.

**Amendment 101**

Annex I, part 'Themes', section 4 ('Nanosciences, Nanotechnologies, Materials and new Production Technologies'), subsection 'Activities', second heading ('Materials'), paragraph 1

New advanced materials with higher knowledge content, new functionalities and improved performance are increasingly critical for industrial competitiveness and sustainable development. According to the new models of manufacturing industry, it is the materials themselves which are becoming the first step in increasing the value of products and their performance, rather than the processing steps.

**Justification**

There is as much research activity concerning composites as metals, with specific problems relating to composites (adhesion, etc.) which do not arise when combining metals (welding, etc.).

**Amendment 102**

Annex I, 'Themes', section 4 ('Nanosciences, Nanotechnologies, Materials and new Production Technologies'), subsection ‘Activities’, second heading, second paragraph

Research will focus on developing new knowledge-based materials with tailored properties. This requires an intelligent control of intrinsic properties, processing and production, and taking into account potential impacts on health and the environment throughout their entire life-cycle. Emphasis will be placed on new advanced materials obtained using the potential of nanotechnologies and biotechnologies and/or “learning from
nature”, in particular higher performance nano-materials, bio-materials and hybrid materials.

Justification

Metamaterials are a new class of materials which possess properties that are not observed in nature and which on account of their innovative importance and their future prospects must not be excluded from research. Currently, one of the most common applications of metamaterials is in the manufacture of flat lenses.

Amendment 103

Annex I, part 'Themes', section 4 (‘Nanosciences, Nanotechnologies, Materials and new Production Technologies’), subsection ‘Activities’, third heading (‘New Production Technologies’), paragraph 1

A new approach to manufacturing is required for the transformation of EU industry from a resource intensive to a knowledge-based industrial environment and will depend on the adoption of totally new attitudes towards the continued acquisition, deployment, protection and funding of new knowledge and its use, including towards sustainable production and consumption patterns. This entails creating the right conditions for continuous innovation (in industrial activities and production systems, including construction, devices, and services) and for developing generic production “assets” (technologies, organisation and production facilities) while also meeting safety and environmental requirements.

Justification

Greater detail should be supplied as regards what is meant by 'generic production assets'. The ultimate objective is to modernise Europe’s industries.

Greater detail should be supplied as regards what is meant by 'generic production assets'. The ultimate objective is to modernise Europe’s industries.
Amendment 104
Annex I, part 'Themes', section 4 ('Nanosciences, Nanotechnologies, Materials and new Production Technologies'), subsection 'Activities', third heading ('New Production Technologies'), paragraph 2

The research will focus on a number of strands: the development and validation of new industrial models and strategies covering all aspects of product and process life-cycle; adaptive production systems that overcome existing process limitations and enable new manufacturing and processing methods; networked production to develop tools and methods for co-operative and value-added operations at a global scale; tools for the rapid transfer and integration of new technologies into the design and operation of manufacturing processes; and the exploitation of the convergence of the nano-, bio-, info- and cognitive technologies to develop new products and engineering concepts and the possibility of new industries.

Justification

Nanosciences and nanotechnologies are by nature multidisciplinary. Thus, one of the main conditions for innovation in this research field is the development of multidisciplinary research, education and training networks combining a wide range of scientific areas, such as nanotechnologies, materials sciences, engineering, information and communication technologies, biotechnologies, sciences of the earth and environmental sciences. The objective is to arrive at new hybrid technologies and strong crossover between different scientific disciplines.

Amendment 105
Annex I, part 'Themes', section 4 ('Nanosciences, Nanotechnologies, Materials and new Production Technologies'), subsection 'Activities', fourth heading ('Integration of technologies for industrial applications'), paragraph 2

The research will focus on new applications and novel, step-change solutions responding to major challenges, as well as to the RTD needs identified by the different European Technology Platforms. The integration of the research networks and of the convergence of the nano-, bio-, info- and cognitive technologies to develop new hybrid technologies, products and engineering concepts and the possibility of new industries.
new knowledge and nano-, materials-, and production-technologies will be supported in sectoral and cross-sectoral applications such as health, construction, space industry, transport, energy, chemistry, environment, textiles and clothing, pulp and paper, and mechanical engineering, as well as in the generic subject of industrial safety.

new knowledge and nano-, materials-, and production-technologies will be supported in sectoral and cross-sectoral applications such as health, food processing, construction (including public works), aerospace industry, transport, energy, chemistry, environment, textiles and clothing, footwear, pulp and paper, and mechanical engineering, as well as in the generic subject of industrial safety.

*Justification*

The industries mentioned - which may benefit from research in this area - should not be left out. Clarification of old amendment 103: 'aerospace industry'.

**Amendment 106**

Annex I, part 'Themes', section 5 ('Energy'), subsection 'Approach', paragraph 3

Strengthening the competitiveness of the European energy sector, in the face of severe global competition, is an important objective of this Theme, providing the capability for European industry to attain or maintain world leadership in key energy technologies. In particular, SMEs are the lifeblood of the energy sector, play a vital role in the energy chain and will be key to promoting innovation. Their strong participation in research and demonstration activities is essential and will be actively promoted.

Strengthening the competitiveness of the European energy sector, in the face of severe global competition, is an important objective of this Theme, providing the capability for European industry to attain or maintain world leadership in key energy technologies. In the face of strong competition, this leadership can only be secured by a high level of investment in research and development. In particular, SMEs are the lifeblood of the energy sector, play a vital role in the energy chain and will be key to promoting innovation. Their strong participation in research and demonstration activities is essential and will be actively promoted.

*Justification*

Seeks to make clear that a high level of investment in research and development contributes to securing Europe’s leadership in the face of global competition.

**Amendment 107**


In order to strengthen the diffusion and use of the output of research, the dissemination of knowledge and transfer of results,

In order to strengthen the diffusion and use of the output of research, the dissemination of knowledge and transfer of results,
including to policy makers, will be supported in all areas. This will complement actions in the Intelligent Energy - Europe Programme component of the Competitiveness and Innovation Programme to support innovation and remove non-technological barriers to the widespread market deployment of demonstrated energy technologies.

Including to policy makers, will be supported in all areas. In particular, multidisciplinarity and interdisciplinarity will be encouraged and maximum synergy and complementarity will be sought with other Community programmes and actions, such as Intelligent Energy - Europe (part of the Competitiveness and Innovation Programme).

Justification

Any activities financed under the Seventh Programme must be closely related to those promoted under other programmes, so that they complement each other.

Amendment 108
Annex I, part 'Themes', section 5 ('Energy'), subsection 'Activities', paragraph -1 (new)

The allocation of funding in the energy sector must be based on criteria that enable technologies to be judged on their ability to assist the EU in meeting its objective of creating an energy sector that is competitive, environmentally sustainable and safe. The relatively limited EU research and development funds under this theme must be focused on technologies that can rapidly deliver reductions in CO₂ emissions.

Justification

The relatively limited EU research and development funds for non-nuclear energy issues must be prioritised towards technologies that rank highly against scientific objective criteria such as: reduce the EU's energy dependency and lower the levels of imported energy and a number of security policy problems, lead to rapid reductions in CO₂ emissions and contribute to the EU’s overall competitively and job creation in short time horizon.

Amendment 109
Annex I, 'Themes', section 5 ('Energy'), subsection 'Activities', heading 'Renewable electricity generation'

Development and demonstration of integrated technologies for electricity Research into, and development and demonstration of, integrated technologies
production from renewables, suited to different regional conditions, in order to provide the means to raise substantially the share of renewable electricity production in the EU. Research should increase overall conversion efficiency, significantly drive down the cost of electricity, enhance process reliability and further reduce the environmental impact. Emphasis will be on photovoltaics, wind and biomass (including biodegradable fraction of waste). Furthermore, research will aim at realising the full potential of other renewable energy sources: geothermal, thermal solar, ocean and small hydropower.

for electricity production from renewables, suited to different regional conditions, in order to provide the means to raise substantially the share of renewable electricity production in the EU. Research should increase overall conversion efficiency, eliminate existing obstacles (which will significantly drive down the cost of electricity), enhance process reliability and further reduce the environmental impact. Emphasis will be on photovoltaics, thermo-solar energy, wind and biomass (including plantations for energy production and biodegradable fraction of waste). Furthermore, research will aim at realising the full potential of other renewable energy sources: geothermal, thermal solar, ocean and small hydropower.

Justification

It is proposed that the opening words of the various paragraphs should be standardised, so that the three scientific components (research, development and demonstration) are mentioned.

The use of solar energy for electricity generation should not be restricted to photovoltaics; the potential for thermo-electric generation using medium- and high-temperature thermic solar collectors should also be exploited.

The objective of increasing and improving activities relating to energy crops and the potential thereof should apply across the board.

Amendment 110
Annex I, 'Themes', section 5 ('Energy'), subsection 'Activities', heading 'Renewable fuel production

Development and demonstration of improved conversion technologies for the sustainable production and supply chains of solid, liquid and gaseous fuels from biomass (incl. biodegradable fraction of waste), in particular biofuels for transport. Emphasis should be on new types of biofuels as well as on new production and research into, and development and demonstration of, improved conversion technologies for the sustainable production and supply chains of solid, liquid and gaseous fuels from biomass and plantations for energy production (incl. biodegradable fraction of waste), in particular biofuels for transport. Emphasis
distribution routes for existing biofuels, including the integrated production of energy and other added-value products through biorefineries. Aiming to deliver ‘source to user’ carbon benefits, research will focus on improving energy efficiency, enhancing technology integration and use of feedstock. Issues such as feedstock logistics, pre-normative research and standardisation for safe and reliable use in transport and stationary applications will be included. To exploit the potential for renewable hydrogen production, biomass, renewable electricity and solar energy driven processes will be supported.

should be on new types of biofuels as well as on new production and distribution routes for existing biofuels, including the integrated production of energy and other added-value products through biorefineries. Aiming to deliver ‘source to user’ carbon benefits, research will focus on improving energy efficiency, enhancing technology integration and use of feedstock. Issues such as energy crops, feedstock logistics, pre-normative research and standardisation for safe and reliable use in transport and stationary applications will be included. To exploit the potential for renewable hydrogen production, biomass, renewable electricity and solar energy driven processes will be supported.

Justification

It is proposed that the opening words of the various paragraphs should be standardised, so that the three scientific components (research, development and demonstration) are mentioned.

The objective of increasing and improving activities relating to energy crops and the potential thereof should apply across the board. For this reason it is proposed that it should be mentioned in this paragraph as well as in the preceding paragraph.

Amendment 111
Annex I, 'Themes', section 5 ('Energy'), subsection 'Activities', heading 'Renewables for heating and cooling'

Development and demonstration of a portfolio of technologies to increase the potential of heating and cooling from renewable energy sources to contribute to sustainable energy. The aim is to achieve substantial cost reductions, increase efficiencies, further reduce environmental impacts and optimise the use of technologies in different regional conditions. Research and demonstration should include new systems and components for industrial applications (incl. thermal seawater desalination), Research into, and development and demonstration of, a portfolio of technologies to increase the potential of active heating and cooling from renewable energy sources and improvements to systems which harness passive or naturally generated heating to contribute to sustainable energy. The aim is to achieve substantial cost reductions, increase efficiencies, further reduce environmental impacts and optimise the use of technologies in different regional conditions. Research and demonstration
district and/or dedicated space heating and cooling, building integration and energy storage. Should include new systems and components for industrial applications (incl. thermal seawater desalination), district and/or dedicated space heating and cooling, building integration and energy storage.

**Justification**

*It is proposed that the opening words of the various paragraphs should be standardised, so that the three scientific components (research, development and demonstration) are mentioned.*

*By means of legislative instruments relating to energy efficiency in building construction the European Union should carry out further research into the scope for using systems which harness passive or naturally generated heat.*

**Amendment 112**

Annex I, part 'Themes', section 5 ('Energy'), subsection 'Activities', heading 6 ('Clean coal technologies')

Coal fuelled power plants remain the workhorse of electricity generation worldwide, but have considerable potential for further efficiency gains and emissions reductions, particularly concerning CO₂. To maintain competitiveness and contribute to the management of CO₂ emissions, the development and demonstration of clean coal conversion technologies will be supported to significantly increase plant efficiency and reliability, minimise pollutant emissions and reduce overall costs, under various operating conditions. Looking towards future zero emission power generation, these activities should prepare for, complement and be linked with developments on CO₂ capture and storage technologies.

**Justification**

*It is important to address all improvements that could be made on existing and/or future coal power plants. The scope of the amendments is to enhance the playing field of EU research not*
only for increasing efficiency and CO\textsubscript{2} abatement, but also towards “zero” emissions targets (i.e.: fine particulate, trace elements, mercury and organic compounds.

Amendment 113
Annex I, part 'Themes', section 5 ('Energy'), subsection 'Activities', heading 7 ('Smart energy networks')

To facilitate the transition to a more sustainable energy system, a wide-ranging R&D effort is required to increase the efficiency, flexibility, safety and reliability of the European electricity and gas systems and networks. For electricity networks, the goals of transforming the current electricity grids into a resilient and interactive (customers/operators) service network and removing the obstacles to the large-scale deployment and effective integration of renewable energy sources and distributed generation (e.g. fuel cells, microturbines, reciprocating engines), will also necessitate the development and demonstration of key enabling technologies (e.g. innovative ICT solutions, storage technologies for RES, power electronics and HTS devices). For gas networks, the objective is to demonstrate more intelligent and efficient processes and systems for gas transport and distribution, including the effective integration of renewable energy sources.

To facilitate the transition to a more sustainable energy system, a wide-ranging R&D effort is required to increase the efficiency, flexibility, safety and reliability of the European electricity and gas systems and networks. For electricity networks, the goals of transforming the current electricity grids into a resilient and interactive (customers/operators) service network, removing the obstacles to the large-scale deployment and effective integration of renewable energy sources and distributed generation (e.g. fuel cells, microturbines, reciprocating engines) and improving the quality of supply (in terms of voltage quality and energy delivered) will also necessitate the development and demonstration of key enabling technologies (e.g. innovative ICT solutions, storage technologies for RES, electronic metering and Automated Meter Management systems, power electronics and HTS devices, ICT control systems for active networks management, efficient work force management, etc.). For gas networks, the objective is to demonstrate more intelligent and efficient processes and systems for gas transport and distribution, including the effective integration of renewable energy sources. Research on integration between electricity and gas networks (e.g. integrated control centres, multi-metering, shared work force) will pursue the goal of efficiency for both sectors.

Justification

The integration of distributed generation is one of the biggest challenges for electricity networks of the future in order to promote the growth of RES, improve quality of supply and satisfy users needs. The users will be more and more involved in the electricity market
through innovative technologies (e.g. Electronic Metering, Automated Meter Management, pre-paid energy, broadband services, etc.), also generating electric energy locally (Distributed Generation). Research for the management and integration of DG in distribution networks is welcome. ICT systems will play a leading role. For efficient management of distribution networks, organisational skills must be improved: work force management, integration of power and gas operation, shared work force for gas and electricity networks may improve efficiency levels.

Amendment 114

Annex I, 'Themes', section 5 ('Energy'), subsection 'Activities', heading 'Energy efficiency and savings', first sentence

The vast potential for energy savings and improvements in energy efficiency need to be harnessed through the optimisation, validation and demonstration of new concepts and technologies for buildings, services and industry.

Justification

It is proposed that the wording of the various paragraphs should be standardised, so that the three scientific components (research, development and demonstration) are mentioned.

The transport sector must not be excluded from the activities provided for in this paragraph.

Amendment 115

Annex I, part 'Themes', section 6 ('Environment (including Climate Change)'), subsection 'Objective'

To promote sustainable management of the natural and human environment and its resources by advancing our knowledge of the interactions between the biosphere, ecosystems and human activities, and developing new technologies, tools and services, in order to address in an integrated way global environmental issues. Emphasis will be put on prediction of climate, ecological, earth and ocean systems changes, on tools and on technologies, for monitoring, prevention

To promote sustainable management of the natural and human environment and its resources by advancing our knowledge of the interactions between the biosphere, ecosystems and human activities, of biodiversity and its sustainable use, and developing new technologies, tools and services, in order to address in an integrated way global environmental issues. Emphasis will be put on prediction of climate, ecological, earth and ocean systems changes, on tools and on
Justification

Certain environmental pressures or risks may be very difficult to reverse. For this reason, research should be carried out into ways of adapting those pressures and risks in order to reduce the impact which they may have on human beings and their environment.

Amendment 116
Annex I, 'Themes', section 6 ('Environment (including Climate Change)'), subsection 'Approach', first paragraph 1

Protecting the environment is essential for the quality of life of current and future generations as well as for economic growth. Given that the Earth’s natural resources and the man-made environment are under pressure from growing population, urbanisation, continuous expansion of the agriculture, transport and energy sectors, as well as climate variability and warming at local, regional and global scales, the challenge facing the EU is to ensure continuous and sustainable growth while at the same time reducing negative environmental impacts. EU-wide cooperation is motivated by the facts that countries, regions and cities face common environmental problems and that critical mass is needed given the scale, scope and high level of complexity of environmental research. Such cooperation also facilitates common planning, use of connected and inter-operable databases, and the development of common indicators, of assessment methodologies and of coherent and large scale observation and forecasting systems. Furthermore international co-operation is necessary for the completion of knowledge and the promotion of better management at a global level.
promotion of better management at a global level.

*Justification*

The environmental impact of livestock farming (such as the production of liquid manure, which seeps into underground water supplies), of fisheries (as regards, for example, the conservation of resources or innovations in fishing techniques which are less damaging to the environment) and of aquaculture (caused, for example, by coastal fish cages and the influence which they have on their surroundings) must be mentioned so that they can be brought specifically within the scope of the activities with which this paragraph is concerned.

Amendment 117
Annex I, part 'Themes', section 6 ('Environment (including climate change)'), subsection 'Approach', paragraph 4

Co-ordination of national programmes will be reinforced by broadening and deepening the scope of existing ERA-NETs in environmental research, including a joint implementation of programmes in Baltic Sea research and new ERA-NETs.

Co-ordination of national programmes will be reinforced by broadening and deepening the scope of existing ERA-NETs in environmental research including a joint implementation of programmes in Baltic Sea research and new ERA-NETs.

*Multidisciplinarity and interdisciplinarity will be promoted by means of 'joint calls' in the case of themes which clearly involve the interrelation of various disciplines, such as sciences and marine technologies.*

*Justification*

In aspects relating to conservation of the marine environment, multidisciplinary and interdisciplinary approaches must be encouraged, in addition to work and cooperation between the players and the countries involved.

Amendment 118
Annex I, 'Themes', section 6 ('Environment (including climate change)'), subsection 'Approach', fifth paragraph

Specific attention will be paid to strengthening the dissemination of EU research outcomes - *also through the*

Specific attention will be paid to strengthening the dissemination of EU research outcomes *and to information and*
exploitation of synergies with complementary funding mechanisms at EU and Member State levels - and to stimulating their uptake by relevant end-users, targeting in particular policy makers.

scientific dissemination, with a view to bringing science and technology closer to society.

Maximum synergy and complementarity will be sought with complementary funding mechanisms at EU and Member State levels, such as the Sixth Environmental Action Programme, the URBAN programme and the LIFE+ Funds.

Justification

Dissemination initiatives will be undertaken in order to ensure that the activities to which they relate are assimilated by final users and in particular by those responsible for taking political decisions.

Activities financed under the Seventh Framework Programme must be closely related to those promoted under other programmes, so as to ensure that they complement each other.
Amendment 119
Annex I, part 'Themes', section 6 ('Environment (including climate change'), subsection 'Activities', first heading ('Climate change, pollution and risks'), first indent

Integrated research on the functioning of climate and the earth system is needed in order to observe and analyse how these systems evolve and predict future evolution. This will enable the development of effective adaptation and mitigation measures to climate change and its impacts. Advanced climate change models from the global to sub-regional scales will be developed and applied to assess changes, potential impacts and critical thresholds. Changes in atmospheric composition and in the water cycle will be studied and risk based approaches will be developed taking into account changes in droughts, storms and floods patterns. Pressures on environmental quality and on climate from pollution of the air, water and soil will be investigated as well as the interactions between the atmosphere, the stratospheric ozone layer, land surface, ice and oceans. Consideration will be given to feedback mechanisms and abrupt changes (e.g. ocean circulation), and to impacts on biodiversity and ecosystems.

Integrated research on the functioning of climate and the earth and ocean system (including the polar regions) is needed in order to observe and analyse how these systems have changed in the past and how they evolve and predict future evolution. This will enable the development of effective adaptation and mitigation measures to climate change and its impacts. Advanced climate change models from the global to sub-regional scales will be developed and applied to assess changes, potential impacts and critical thresholds. Changes in atmospheric composition and in the water cycle will be studied and risk based approaches will be developed taking into account changes in droughts, storms and floods patterns. Pressures on environmental quality and on climate from pollution of the air, water (both surface and underground) and soil will be investigated as well as the interactions between the atmosphere, the stratospheric ozone layer, land surface, ice and oceans, including the effects which changes in sea levels have in coastal areas. Consideration will be given to feedback mechanisms and abrupt changes (e.g. ocean circulation), and to impacts on biodiversity and ecosystems, including impacts on particularly sensitive areas such as coastal and mountain regions.

Justification

A study of past changes in the earth and ocean systems may reveal data which can help to explain and predict current and future changes.

In addition, this amendment serves to update the description of the pressures currently being exerted on our earth and ocean environment, incorporating as it does issues such as the melting of the ice caps, changes in sea levels and the damage done to underground water.

Amendment 120

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Multidisciplinary research on interactions of environmental risk factors and human health is needed to support the Environment and Health action plan and the integration of public health concerns and disease characterisation related to emerging environmental risks. Research will focus on multiple exposures via different exposure routes, identification of pollution sources and new or emerging environmental stressors (e.g. indoor and outdoor air, electromagnetic fields, noise, and exposure to toxic substances) and their potential health effects. Research will also aim at integrating research activities on human biomonitoring regarding scientific aspects, methodologies and tools to develop a coordinated and coherent approach. It will include European cohort studies, with attention to vulnerable population groups, and methods and tools for improved risk characterisation, assessment and comparisons of risks and health impacts. Research will develop biomarkers and modelling tools taking into account combined exposures, variations in vulnerability and uncertainty. It will also deliver methods and decision support tools (indicators, cost-benefit and multi-criteria analyses, health impact assessment, burden of disease and sustainability analysis) for risk analysis, management and communication, and for policy development and analysis.

Multidisciplinary research on interactions of environmental and global change risk factors and human health is needed to support the Environment and Health action plan and the integration of public health concerns and disease characterisation related to emerging environmental risks, especially in the urban environment (including post-industrial areas). Research will focus on the impact of global change (climate change, land use, globalisation), multiple exposures via different exposure routes, speciation and toxicology, identification of pollution sources and new or emerging environmental stressors and the interactions thereof with natural agents and components (e.g. harmful gases, fine and ultrafine particles of an animate and inanimate nature, indoor and outdoor air, electromagnetic fields, noise, exposure to toxic substances, gases and car emissions and exposure to solar radiation) and their potential health effects, analyses of syndromes and chronic exposure, interactions of toxic substances and mixtures of such substances, analyses of genetic polymorphisms and immunology tests, including tests for lymphocyte transformation and activation.

Investigation will be encouraged into new or existing chemicals, as provided for in the [REACH regulation], and also into alternatives to animal testing. Research will also aim at developing novel and improved methods of identifying pollution sources and the effect of their combined influence, integrating epidemiological research activities on human biomonitoring regarding scientific aspects, methodologies and tools to develop a coordinated and coherent approach. It will include European cohort studies, with attention to vulnerable population groups, and methods and tools for improved risk characterisation and monitoring, assessment and comparisons of risks and health impacts. Research will
develop biomarkers and modelling **and monitoring** tools taking into account combined exposures, variations in vulnerability and uncertainty. It will also deliver methods and decision support tools (indicators, cost-benefit and multi-criteria analyses, health impact assessment, burden of disease and sustainability analysis) for risk analysis, management and communication, and for policy development and analysis.

Amendment 121
Annex I, part 'Themes', section 6 ('Environment (including climate change)'), subsection 'Activities', first heading ('Climate change, pollution and risks'), third indent

Managing natural disasters requires a multi-risk approach. There is a need for improved knowledge, methods and integrated framework for the assessment of hazards, vulnerability and risks. Furthermore mapping, prevention and mitigation strategies including consideration of economic and social factors need to be developed. Disasters related to climate (such as storms, droughts, forest fires, landslides **and floods**), and geological hazards (such as earthquakes, volcanoes and tsunamis) will be studied. This research will allow the underlying processes to be better understood, and prediction and forecasting methods to be improved on the basis of a probabilistic approach. It will also underpin the development of early warning **and** information systems. *Societal repercussions of major natural hazards will be quantified.*

Managing natural disasters requires a multi-risk approach **based on combining specific-risk strategies with comprehensive plans, procedures and protocols**. There is a need for improved knowledge, methods and integrated framework for the assessment of hazards, vulnerability and risks. Furthermore mapping, prevention, **detection** and mitigation strategies including consideration of economic and social factors need to be developed. Disasters related to climate (such as storms, droughts, **freezes**, forest fires, **avalanches**, landslides, **emissions**, floods and **other extreme phenomena**), and geological hazards (such as earthquakes, volcanoes and tsunamis) will be studied. This research will allow the underlying processes to be better understood, and prediction and forecasting methods to be improved on the basis of a probabilistic approach. It will also underpin **research on natural risks and disaster management and the development of early warning information and rapid response systems and their management and investigation of how natural risks and disasters are dealt with.** **Particular attention will be paid to societal patterns of behaviour vis-à-vis natural hazards and the assessment of**
Research activities will be targeted to improve the knowledge basis and develop advanced models and tools needed for the sustainable management of resources and the creation of sustainable consumption patterns. This will enable the prediction of the behaviour of ecosystems and their restoration, and the mitigation of degradation and loss of important structural and functional elements of ecosystems (for biodiversity, water, soil and marine resources). Research on ecosystem modelling will take account of protection and conservation practices. Innovative approaches to develop economic activities from ecosystem services will be promoted. Approaches will be developed to prevent desertification, land degradation and erosion, and to stop biodiversity loss. Research will also address sustainable management of forests and the urban environment including planning, and waste management. The research will benefit from and contribute to the development of open, distributed, interoperable data management and information systems and will underpin assessments, foresight, and services related to natural resources and their use.

Research activities will be targeted to improve the knowledge basis and develop advanced models and tools needed for the sustainable management of resources and the creation of sustainable consumption patterns. This will enable the prediction of the behaviour of ecosystems and their restoration, and the mitigation of degradation and loss of important structural and functional elements of ecosystems (for biodiversity, water, soil and marine resources). Research on ecosystem modelling will take account of protection and conservation practices and protection from erosion, particularly in mountainous areas. Innovative approaches to develop economic activities from ecosystem services will be promoted. Approaches will be developed to prevent desertification, land degradation and erosion, and to stop biodiversity loss. Research will also address the overall strategy for sustainable management and conservation of rural areas, including forests, forestry ecosystems and other ecosystems close to nature that experience changing environmental conditions, including frequent or intense disasters, and the urban environment taking account of the cultural heritage, planning and waste management. The research will benefit from and contribute to the development of open, distributed, interoperable data management and information systems and will underpin assessments, foresight, and services related to natural resources and their use.

Justification

Sustainable conservation of resources requires the systematic study of conservation and
management systems, as is to be inferred from the difficulties encountered in applying the Natura 2000 network.

Amendment 123
Annex I, part 'Themes', Section 6 ('Environment (including Climate Change)'), subsection 'Activities', third heading ('Environmental Technologies'), indent 1

New or improved environmental technologies are needed to reduce the environmental impact of human activities, protect the environment and manage resources more efficiently and to develop new products, processes and services more beneficial for the environment than existing alternatives. Research will target in particular: technologies preventing or reducing environmental risks, mitigating hazards and disasters, mitigating climate change and the loss of biodiversity; technologies promoting sustainable production and consumption; technologies for managing resources or treating pollution more efficiently, in relation to water, soil, air, sea and other natural resources, or waste; technologies for the environmentally sound and sustainable management of the human environment including the built environment, urban areas, landscape, as well as for the conservation and restoration of cultural heritage.

Justification
Waste recycling is a significant part of the solution to be provided for the problem of waste, in particular in terms of energy production.

Amendment 124
Annex I, 'Themes', section 6 ('Environment (including Climate Change)'), subsection 'Activities', heading, 'Environmental Technologies', indent 2

Research will focus on the risk and performance assessment of technologies, including processes and products, and the research will target in particular: research on the risk and performance assessment of technologies, including processes, products and services,
further development of related methods such as the life cycle analysis. Moreover, focus will be given to: long-term opportunities, market potential and socio-economical aspects of environmental technologies; chemicals risk assessment, intelligent testing strategies and methods for minimising animal testing, risk quantification techniques; and research support to the development of the European Environmental Technologies Verification and Testing system. and the further development of related methods such as the life cycle analysis. Moreover, focus will be given to: long-term opportunities, market potential and socio-economical aspects of environmental technologies; chemicals risk assessment, intelligent testing strategies and methods for minimising animal testing, risk quantification techniques; and research support to the development of the European Environmental Technologies Verification and Testing system.

Justification

It is necessary to include services, on the same terms as products and processes.

Amendment 125
Annex I, 'Themes', section 6 ('Environment (including Climate Change)'), subsection 'International Cooperation', second paragraph

Scientific and technological partnerships with developing countries will contribute to the Millennium Development Goals in several fields (e.g. reverse the loss of environmental resources, improvement of water management, supply and sanitation, and facing the environmental challenges of urbanisation), areas where SMEs could also play a key role. Particular attention will be given to the relation between global environmental issues and the regional and local development problems relating to natural resources, biodiversity, land use, natural and man-made hazards and risks, climate change, environmental technologies, environment and health as well as on policy analysis tools. Cooperation with industrialised countries will enhance access to global research excellence.

Scientific and technological partnerships with developing countries will contribute to the Millennium Development Goals in several fields (e.g. prevention and mitigation of the impact of climate change and natural disasters, reversing the loss of environmental resources, improvement of water and land management, and supply and sanitation, preventing and fighting desertification, and facing the environmental and biodiversity challenges of urbanisation and sustainable production and consumption), areas where SMEs could also play a key role. Particular attention will be given to the relation between global environmental issues and the regional and local development problems relating to natural resources, biodiversity, land use, natural and man-made hazards and risks, climate change, environmental technologies, environment and health as well as on policy analysis tools. Cooperation with industrialised countries will enhance access to global research excellence.
research excellence.

Justification

The EU can make a major contribution to a sound development process in the poorest countries by contributing and sharing with them techniques for the prevention and management of natural disasters, proper use of water and land resources, construction and sustainable urban growth, etc.

Amendment 126
Annex I, 'Themes', section 6 ('Environment (including Climate Change)'), subsection 'International Cooperation', third paragraph

The establishment of the GEOSS for Earth observation will promote international cooperation for understanding Earth systems and sustainability issues, and co-ordinated data collection for scientific and policy purposes.

Justification

It is clear that the data that emerge from the GEOSS macrosystem will serve to raise the awareness of both public- and private-sector players regarding the planet's environmental needs, thus inciting them to take action.

Amendment 127
Annex I, 'Themes', section 6 ('Environment (including Climate Change)'), subsection 'Responding to emerging needs and unforeseen policy needs', second paragraph

Support to respond to unforeseen environmental policy needs could, for example, relate to sustainability impact assessments of new EU policies such as in environment, maritime policy, standards and regulations.

Support to respond to unforeseen environmental policy needs could, for example, relate to sustainability impact assessments of new EU policies in relation to sustainable production and consumption, the environment, climate change, natural resources, maritime policy, and standards and regulations.
The ongoing sustainability assessment referred to in this paragraph should also include the Community's policies as regards production and consumption, natural resources and climate change, as mentioned in various parts of this priority theme.

Amendment 128
Annex I, part 'Themes', section 7 ('Transport (including Aeronautics)'), subsection 'Objective'

Based on technological advances, develop integrated, “greener”, “smarter” and safer pan-European transport systems for the benefit of the citizen and society, respecting the environment and natural resources; and securing and further developing the competitiveness and the leading role attained by the European industries in the global market.

Based on technological advances, develop integrated, “greener”, “smarter” and safer pan-European transport systems for the benefit of the citizen and society, respecting the environment and natural resources; and securing and further developing the competitiveness and the leading role attained by European industries in the global market and closing the transatlantic technological gap.

Justification
There are segments of the air transport system where Europe has lost its leadership (e.g. the, regional air transport is now dominated by Canadians and Brazilians). There are also segments where Europe, without adequate investments, risks to be pushed to marginal positions (e.g. tiltrotors).

Amendment 129
Annex I, part 'Themes', Section 7 '(Transport (including Aeronautics))', subsection 'Approach', paragraph 3

The various Technology Platforms set up in this field (ACARE for aeronautics and air transport, ERRAC for rail transport, ERTRAC for road transport, WATERBORNE for waterborne transport, Hydrogen and Fuel cells) have elaborated long-term visions and Strategic Research Agendas (SRA) which constitute useful inputs to the definition of this theme and complement the needs of policy makers and expectations of society. Selected aspects of the SRAs may justify setting up Joint Technology Initiatives. ERA-NET activities present opportunities to facilitate further trans-national coordination for specific

The various Technology Platforms set up in this field (ACARE for aeronautics and air transport, ERRAC for rail transport, ERTRAC for road transport, WATERBORNE for waterborne transport and maritime technology, Hydrogen and Fuel cells) have elaborated long-term visions and Strategic Research Agendas (SRA) which constitute useful inputs to the definition of this theme and complement the needs of policy makers and expectations of society. Selected aspects of the SRAs may justify setting up Joint Technology Initiatives. ERA-NET activities present opportunities to facilitate further trans-
topics within the Transport sector and will be pursued wherever appropriate. national coordination for specific topics within the Transport sector and will be pursued wherever appropriate.

Justification

Europe ought to maintain its lead in maritime technology research.

Amendment 130

Annex I, part 'Themes', Section 7 ('Transport (including Aeronautics)'), subsection 'Approach', paragraph 5

Existing policy needs as well as the development, assessment and implementation of new policies (for example Maritime Policy), will be addressed within and across the different activity lines. The work will include studies, models and tools that deal with strategic monitoring and forecasting and integrate knowledge relating to the main economic, social, safety and environmental issues for transport. Activities supporting cross-cutting thematic topics will focus on transport specificities, for example security aspects as an inherent requirement to the transport system; the use of alternative energy sources in transport applications; and monitoring of environmental effects of transport, including climate change.

Existing policy needs as well as the development, assessment and implementation of new policies (for example maritime policy), will be addressed within and across the different activity lines. The work will include studies, models and tools that deal with strategic monitoring and forecasting and integrate knowledge relating to the main economic, social, safety and environmental issues for transport. Activities supporting cross-cutting thematic topics will focus on transport specificities, for example security aspects as an inherent requirement in the transport system; the use of alternative energy sources in transport applications; monitoring of environmental effects of transport, including climate change; and measures to lessen the adverse effects stemming from permanent geographical constraints. Environmental research should cover ways of avoiding, reducing, and optimising traffic. Environmental research should include boosting transport efficiency.
Justification

Following on from the text proposed by the draftsman, this amendment proposes that the measures to be pursued under the heading of cooperation should be such as to lessen the adverse effects stemming from permanent geographical constraints.

Amendment 131
Annex I, 'Themes', section 6 ('Transport (including Aeronautics)'), subsection 'Approach', fifth paragraph a (new)

Special attention shall be paid to improving the dissemination of the results of Community research. Encouragement shall be given to multidisciplinary and interdisciplinary approaches, and the maximum degree of synergy and complementarity shall be sought with complementary financial mechanisms at Community and Member State level, such as those referred to in the Marco Polo programme or for the trans-European transport networks.

Justification

The activities financed under the Seventh Framework Programme should be closely linked to those promoted by other programmes, the aim being to ensure complementarity.

Amendment 132
Annex I, part 'Themes', section 7 ('Transport (including Aeronautics)'), subsection 'Activities', first heading ('Aeronautics and air transport'), paragraph 2

The greening of air transport: Developing technologies to reduce the environmental impact of aviation with the aim to halve the emitted carbon dioxide (CO₂), cut specific emissions of nitrogen oxides (NOx) by 80% and halve the perceived noise. Research will focus on furthering green engine technologies including alternative fuels technology as well as improved vehicle efficiency of fixed-wing and rotary wing aircraft, new intelligent low-weight structures, and improved aerodynamics. Issues such as improved aircraft operations...
at the airport (airside and landside) and air traffic management, manufacturing, maintenance and recycling processes will be included.

improved aircraft operations at the airport (airside and landside) and air traffic management, manufacturing, maintenance and **overhaul** and recycling processes will be included.

**Justification**

*Helicopters and tiltrotors are both part of the rotary wing family each with its specific characteristics.*

Amendment 133

Annex I, part 'Themes', section 7 ('Transport (including Aeronautics)'), subsection 'Activities', first heading ('Aeronautics and air transport'), paragraph 4

Ensuring customer satisfaction and safety: Introducing a quantum leap in passenger choice and schedule flexibility, whilst achieving a five-fold reduction in accident rate. New technologies will enable a wider choice of aircraft/engine configurations ranging from wide body to **small** size vehicles, increased levels of automation in all the elements of the system, including the piloting. Focus will also be on improvements for passengers comfort, well being and new services and active and passive safety measures with special emphasis on the human element. Research will include the adaptation of airport and air traffic operations to different **type** of vehicles and 24-hour utilisation at acceptable community noise levels.

Ensuring customer satisfaction and safety: Introducing a quantum leap in passenger choice and schedule flexibility, whilst achieving a five-fold reduction in accident rate. New technologies will enable a wider choice of aircraft/engine configurations ranging from wide body to **smaller** size vehicles for **city-centre to city-centre connections and regional use (e.g. tiltrotors) and increased levels of automation in all the elements of the system, including the piloting, and will make national information and booking systems interoperable in terms of carriers and modes on a pan-European scale.** Focus will also be on improvements for passengers comfort, well being and **health conditions, e.g. better cabin amenities** and new services and active and passive safety measures, with special emphasis on the human element. Research will include the adaptation of airport and air traffic operations to different **geographical conditions and types** of vehicles and 24-hour utilisation at acceptable community noise levels.

**Justification**

*"Smaller" explains better the need to consider the whole range of aircraft below the wide body category. We should also improve the city-centre to city-centre connections and any regional connection where adequate infrastructures are not present.*
Improving cost efficiency: Fostering a competitive supply chain able to halve the time-to-market, and reduce product development and operational cost, resulting in more affordable transport for the citizen. Research will focus on improvements to the whole business process, from conceptual design to product development, manufacturing and in-service operations including the integration of the supply chain. It will include improved simulation capabilities and automation, technologies and methods for the realisation of the zero-maintenance aircraft, as well as lean aircraft, airport and air traffic management operations.

Improving cost efficiency: Fostering a competitive supply chain able to halve the time-to-market, and reduce product development and operational cost, for example by exploiting the results of the System for Mobile Maintenance Accessible in Real Time (SMMART) project, resulting in more affordable transport for the citizen. Research will focus on improvements to the whole business process, from conceptual design to product development, manufacturing and in-service operations including the integration of the supply chain. It will include improved simulation capabilities and automation, technologies and methods for the realisation of the zero-maintenance aircraft, as well as lean aircraft, airport and air traffic management operations.

Justification

It is desired to profit from the potential achievements of the 6th Framework Programme, part of which is SMMART - System for Mobile Maintenance Accessible in Real Time. The aim of SMMART research is to make more efficient and to shorten the spare parts supply chain in the aviation industry.

Protection of aircraft and passengers:
Preventing hostile action of any kind to incur injury, loss, damage or disruption to travellers or citizens due to the effects of aircraft misuse. Research will focus on the relevant elements of the air transport system including security measures in cabin and cockpit designs, automatic control and landing in the case of unauthorised use of aircraft, protection against external attacks, as well as security aspects of airspace.

Protection of aircraft and passengers:
Preventing hostile action of any kind to incur injury, loss, damage or disruption to travellers or citizens due to the effects of aircraft misuse. Research will focus on the relevant elements of the air transport system including security measures in cabin and cockpit designs, automatic control and landing in the case of unauthorised use of aircraft, protection against external attacks, as well as security aspects of airspace.
management and airport operations, and aspects related to physical constraints or severe weather conditions.

Justification

The amendment aims to bring as many areas as possible within the scope of the future research.

Amendment 136
Annex I, part 'Themes', Section 7 ('Transport (including Aeronautics)'), subsection 'Activities', first heading ('Aeronautics and air transport'), paragraph 7

Pioneering the air transport of the future: Exploring more radical, environmentally efficient and innovative technologies that might facilitate the step change required for air transport in the second half of this century and beyond. Research will address aspects such as new propulsion and lifting concepts, new ideas for the interior space of airborne vehicles, new airport concepts, new methods of aircraft guidance and control, alternative concepts of air transport system operation and its integration with other transport modes.

Justification

The air transport of the future must offer new ways to minimise the effects stemming from permanent geographical constraints existing in the regions or countries where such transport is to be used.

Amendment 137
Annex I, part 'Themes', section 7 ('Transport (including Aeronautics)'), subsection 'Activities', second heading ('Surface transport (rail, road and waterborne)'), paragraph 1

The greening of surface transport: Developing technologies and knowledge for reduced pollution (air, water and soil) and environmental impact such as climate change, health, biodiversity and noise.

The greening of surface transport: Improving methodologies for the calculation of external social and environmental costs. Developing technologies and knowledge for reduced
Research will improve the cleanliness and energy-efficiency of power-trains and promote the use of alternative fuels, including hydrogen and fuel cells. Activities will cover infrastructure, vehicles, vessels and component technologies, including overall system optimisation. Research in developments specific to transport will include manufacturing, construction, operations, maintenance, repair, inspection, recycling, end of life strategies and interventions at sea in case of accident.

Ensuring sustainable urban mobility: Focusing on the mobility of people and goods by research on the 'next generation vehicle' and its market take-up, bringing together all elements of a clean, energy efficient, safe and intelligent road transport. Research on new mobility concepts, innovative organisational and mobility management schemes and high quality public transport will aim at ensuring access for all and high levels of intermodal integration. Innovative strategies for clean urban transport will be developed and tested. Particular attention will be paid to non-polluting modes of transport, demand management, rationalisation of private transport, and information and communication strategies, services and infrastructures. Tools supporting policy development and implementation will include transport and land use planning.

Ensuring sustainable urban mobility for all citizens, including those with disabilities: Focusing on the mobility of people and goods by research on the 'next generation vehicle' and its market take-up, bringing together all elements of a clean, energy efficient, safe and intelligent road transport. Research on new transport and mobility concepts, innovative organisational and mobility management schemes and high quality public transport will aim at ensuring access for all and high levels of intermodal integration. Innovative strategies for clean urban transport will be developed and tested. Particular attention will be paid to non-polluting modes of transport, demand management, rationalisation of private transport, and information and communication strategies, services and infrastructures. Focus will also be on quality of mobility and user satisfaction, in particular for persons with reduced pollution (air, water and soil) and environmental impact such as climate change, health, biodiversity and noise.

Research will improve the cleanliness, cost-effectiveness and energy-efficiency of power-trains (e.g. hybrid solutions) and promote the use of alternative fuels, including hydrogen and fuel cells, and of trains using alternative hybrid motors, with the goal of achieving carbon-free means of transport. Activities will cover infrastructure, vehicles, vessels and component technologies, including overall system optimisation. Research in developments specific to transport will include manufacturing, construction, operations, maintenance, diagnosis, repair, inspection, dismantling, disposal, recycling, end of life strategies and interventions at sea in case of accident.
**mobility and specific groups like older people and women. Tools and models**
supporting policy development and implementation will include transport and land use planning.

**Amendment 139**
Annex I, part 'Themes', section 7 ('Transport (including Aeronautics)'), subsection 'Activities', second heading ('Surface transport (rail, road and waterborne)'), paragraph 4

Improving safety and security: Developing technologies and intelligent systems to protect vulnerable persons such as drivers, riders, passengers, crew, and pedestrians. Advanced engineering systems and risk analysis methodologies will be developed for the design of vehicles, vessels and infrastructures. Emphasis will be placed on integrative approaches linking human elements, structural integrity, preventive, passive and active safety, rescue and crisis management. Safety will be considered as an inherent component of the total transport system embracing infrastructures, goods and containers, transport users and operators, vehicles and vessels and measures at policy and legislative levels, including decision support and validation tools; security will be addressed wherever it is an inherent requirement to the transport system.

**Amendment 140**
Annex I, part 'Themes', section 7 ('Transport (including Aeronautics)'), subsection 'Activities', second heading ('Surface transport (rail, road and waterborne)'), paragraph 5

Strengthening competitiveness: Improving the competitiveness of transport industries, ensuring sustainable, efficient and affordable transport services and creating new skills and job opportunities by research and developments. Technologies for advanced industrial processes will include design, manufacturing, assembly, construction and maintenance and will aim at decreasing life cycle costs and development lead-times.
Emphasis will be placed on innovative product concepts and improved transport services ensuring higher customer satisfaction. New production organisation including the supply chain management and distribution systems will be developed.

Justification

Amendment 141
Annex I, part 'Themes', section 7 ('Transport (including Aeronautics)'), subsection 'Activities', third heading ('Support to the European global satellite navigation system (Galileo)'), paragraph 3

Providing the tools and creating the appropriate environment: ensuring safe use of services, mainly through certification in key application domains; preparing and confirming the adequacy of services to new policies and legislation, including their implementation; addressing public regulated services according to the approved policy of access; developing essential digital topology, cartography, geodesy data and systems for use in navigation applications; addressing safety and security needs and requirements.

Amendment 142
Annex I, 'Themes', section 8 ('Socio-Economic Sciences and the Humanities'), subsection 'Approach', first paragraph

The research priorities address key societal, economic and cultural challenges facing Europe and the world now and in the future. The proposed research agenda constitutes a coherent approach to addressing these challenges. The development of a socio-economic and...
humanities knowledge base on these key challenges will make a significant contribution to promoting shared understanding across Europe and to the resolution of wider international problems. The research priorities will help improve the formulation, implementation, impact and assessment of policy in virtually all Community policy areas at the European, national, regional and local levels, and a substantial international perspective is included in most of the research.

**Justification**

*It is also important to include the socio-cultural sciences, in the interests of obtaining a broader and more concrete vision of European and international issues.*

**Amendment 143**

Annex I, part 'Themes', section 8 ('Socio-Economic Sciences and the Humanities'), subsection 'Activities', first heading ('Growth, employment and competitiveness in a knowledge society'), paragraph 1, introductory part

This will aim to develop and integrate research on the issues affecting growth, employment and competitiveness in order to provide an improved and integrated understanding of these issues for the continued development of a knowledge society. It will benefit policy and support progress towards achieving these objectives. The research will integrate the following aspects of the question:

**Justification**

*There is a need to take account of the problems affecting socio-economic stability and the inclusion of not only formal but also non-formal education.*

**This amendment replaces a part of AM 981 to the Draft Report of Jerzy Buzek on the 7th Framework Programme**

**Amendment 144**

Annex I, 'Themes', section 8 ('Socio-Economic Sciences and the Humanities'), subsection
'Activities', heading 'Growth, employment and competitiveness in a knowledge society', first paragraph, indent 1

- The changing role of knowledge throughout the economy, including the role of different types of knowledge and competences, education and lifelong learning, and intangible investment.

Amendment 145
Annex I, 'Themes', section 8 ('Socio-Economic Sciences and the Humanities'), subsection 'Activities', heading 'Growth, employment and competitiveness in a knowledge society', first paragraph, indent 2

- Economic structures, structural change and productivity issues, including the role of the services sector, of finance, demographics, demand and the processes of long-term change.

Justification
Intersectoral relations are ever more important in today's globalised world, and should not be excluded where economic structures are mentioned. The same applies to the outsourcing of services and information and communications technology, without which the present economic systems would be inconceivable.

Amendment 146
Annex I, part 'Themes', section 8 ('Socio-Economic Sciences and the Humanities'), subsection 'Activities', first heading ('Growth, employment and competitiveness in a knowledge society'), paragraph 1, indent 3

– Institutional and policy questions, including macroeconomic policy, labour

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markets, institutional contexts, and policy coherence and coordination.

markets, social and welfare systems, national and regional institutional contexts, the changing role of scientific expertise in the policy-making process and policy coherence and coordination.

Amendment 147
Annex I, part 'Themes', section 8 ('Socio-Economic Sciences and the Humanities'), subsection 'Activities', third heading ('Major trends in society and their implications'), paragraph 1, indent 1 a (new)

– Developing urban research to better understand thematic (environment, transport, social, economic, demographic) and spatial (urban, regional) interactions in the city and to develop, first, innovative planning mechanisms to address the issues in an integrated and sustainable manner and, second, urban governance, the development of innovative instruments and approaches to enhance citizens' participation and cooperation between public and private actors, to understand better the roles of European cities in a global context (urban competitiveness), to support local authorities in improving social cohesion and fighting exclusion in cities where inequalities grow despite economic development.

Amendment 148
Annex I, part 'Themes', section 8 ('Socio-Economic Sciences and the Humanities'), subsection 'Activities', third heading ('Major trends in society and their implications'), paragraph 1, indents 3 a and 3 b (new)

- Urban competitiveness: the role of European cities in a global context, local policies to improve cohesion.

- Urban research: focusing on thematic (environment, transport, social, economic, demographic) and spatial interactions in the city to develop integrated and sustainable governance processes.
Justification

The Commission proposal does not foresee any specific research in the area of urban development while the majority of EU citizens live in cities. The aim of this amendment is to reintroduce this kind of research on the urban dimension. Given the riots in the French suburbs last year it is necessary to have this kind of research included within the framework programme.

Amendment 149
Annex I, part 'Themes', section 8 ('Socio-Economic Sciences and the Humanities'), subsection 'Activities', third heading 'Major trends in society and their implications', paragraph 1, indent 3 c (new)

- Studies into the impact of culture, the cultural heritage and creative and culture-oriented industries on socio-economic development and the employment market.

Justification

The role played by the cultural environment is an important factor which is specific to Europe; the added value it contributes should be studied in depth.

Amendment 150
Annex I, 'Themes', section 8 ('Socio-Economic Sciences and the Humanities'), subsection 'Activities', heading 'Europe in the world', first paragraph, indent 2

- Conflicts, their causes and resolution; the relation between security and destabilising factors such as poverty, crime, environmental degradation and resource scarcity; terrorism, its causes and consequences; security-related policies and perceptions of insecurity and civil-military relations.

- Conflicts, their causes and resolution; the relation between security and destabilising factors such as poverty, migration, crime, environmental degradation and resource scarcity; terrorism, its causes and consequences; security-related policies and perceptions of insecurity and civil-military relations.

Justification

Migration as a factor of destabilisation should be included.

Amendment 151
Annex I, part 'Themes', section 8 ('Socio-Economic Sciences and the Humanities'), subsection 'Activities', heading 7 'Foresight activities', paragraph 1, indent 1

– Wide socio-economic foresight on a

– Wide socio-economic foresight on a
limited number of key challenges and opportunities for the EU, exploring issues such as the future and implications of ageing, migration, globalisation of knowledge, changes in crime and major risks.

Justification

The globalisation of knowledge makes it crucial to understand mechanisms of dissemination of knowledge.

Amendment 152
Annex I, part 'Themes', section 8 ('Socio-Economic Sciences and the Humanities'), subsection 'Activities', heading 7 ('Foresight activities'), paragraph 1, indent 4 a (new)

- Humanities: Language, its structure and acquisition. History, art history, geography, earth sciences, territorial history. Philosophy, cultural and religious history. The cultural heritage of visual arts, traditional arts and crafts, architecture and cities.

Justification

A comprehensive knowledge of the origins of the common 'aquis' is required.

Amendment 153
Annex I, part 'Themes', section 9 ('Security and Space'), title and subsection 'Objective', second paragraph

9. Security and Space
Supporting a European Space Programme focusing on applications such as GMES with benefits for citizens and for the competitiveness of the European space industry. This will contribute to the development of a European Space Policy, complementing efforts by Member States and by other key players, including the European Space Agency.

9. Security deleted
Justification

In spite of the links between security and space, these two topics should be dealt with as two clearly defined priorities.

Amendment 154
Annex I, part 'Themes', section 9.1 ('Security'), title

9.1 Security deleted

Justification

In spite of the links between security and space, these two topics should be dealt with as two clearly defined priorities.

Amendment 155
Annex I, part 'Themes', section 9.1 ('Security'), subsection 'Approach', paragraph 2

Activities at Community level will address four security mission areas which have been identified in response to specific challenges of high political relevance and European added value with regard to threats and potential security incidents, and three areas of cross-cutting interest. Each mission area covers six phases which vary in time and emphasis. These six phases are: identify (incident related), prevent (threat related), protect (target related), prepare (operation related), respond (crisis related) and recover (consequence related); they describe what efforts to undertake in the respective phases. The first four phases refer to efforts of avoiding an incident and mitigating its potential negative impacts, the last two refer to efforts of coping with the incident situation and longer term consequences.

Justification

In its draft proposal on the Cooperation programme the Commission states that: “In order to strengthen the diffusion and use of the output of EU research, the dissemination of knowledge
and transfer of results... will be supported in all thematic areas”. This is followed by a footnote to the effect that “In some cases, certain restrictions may apply to Security research, in conformity with the Rules for Participation and Dissemination”. This amendment seeks to take account of the specific requirements of security research. In adopting this amendment, the European Parliament would be reiterating the position it has already formulated.

Amendment 156  
Annex I, part 'Themes', section 9.1 ('Security'), subsection 'Approach', paragraph 6

The involvement of small and medium enterprises (SME) in the activities is as strongly encouraged as that of authorities and organisations responsible for the security of the citizens. The longer term research agenda elaborated by the European Security Research Advisory Board (ESRAB) will support the definition of the content and structure of the research in this theme.

Justification

While in many sectors the economy is structured in such a way that SMEs – within the meaning of the EU definition – are the driving force for innovation and competitiveness, the field of security is an exception. In this area, firms whose activities are often – partly as a result of the failure to complete the Internal Market and of restricted competition – not solely confined to the field of security research and thus do not qualify under the EU’s definition of SMEs, are indispensable to innovation. The structure of the sector must be taken into account.

Amendment 157  
Annex I, part 'Themes', section 9.1 ('Security'), subsection 'Activities', bullet 1

Protection against terrorism and crime: Activities will concentrate on threat aspects of potential incidents such as offenders, equipment and resources used by them or as mechanisms of attack. A series of capabilities are required to cope with this mission area, many of which primarily relate...
to the phases “identify”, “prevent” and “prepare” and “respond”. The ambition is both to avoid an incident and to mitigate its potential consequences. To build up the required capabilities, emphasis will be on issues such as: threat (e.g. Chemical, Biological, Radiological and Nuclear) awareness (e.g. intelligence gathering, collection, exploitation, sharing; alerting), detection (e.g. hazardous substances, individuals or groups, suspect behaviour), identification (e.g. of persons, type and amount of substances), prevention (e.g. control of access and movements, with respect to financial resources, control of financial structures), preparedness (e.g. risk assessment; control of intentionally released biological and chemical agents; assessment of levels for strategic reserves such as manpower, skills, equipment, consumables; with respect to large scale events etc.), neutralisation and containment of effects of terrorist attacks and crime, law enforcement data processing.

Justification

The FP aims also at supporting the EU policies.

Amendment 158

- Activities will concentrate on targets of an incident, examples for infrastructures include large scale event sites, significant sites of political (e.g. parliament buildings) or symbolic (e.g. particular monuments) value and utilities being those for energy (including oil, electricity, gas), water, transport (including air, sea, land), communication (including broadcasting), financial, administrative, public health etc. A series of capabilities are required to cope with this mission area, many of which

- Activities will concentrate on disasters and on targets of an incident, examples for infrastructures include large scale event sites, significant sites of political (e.g. parliament buildings) or symbolic (e.g. particular monuments) value and utilities being those for energy (including oil, electricity, gas), water, transport (including air, sea, land), communication (including broadcasting), financial, administrative, public health etc. A series of capabilities are required to cope with this mission area,
primarily relate to the phases “protect” but also “prepare”. The ambition is both to avoid an incident and to mitigate its potential consequences. To build up the required capabilities, emphasis will be on issues such as: analysing and assessing vulnerabilities of physical infrastructure and its operations; securing existing and future public and private critical networked infrastructures, systems and services with respect to their physical and functional side; control and alert systems to allow for quick response in case of an incident; protection against cascading effects of an incident.

many of which primarily relate to the phases “protect” but also “prepare”. The ambition is both to avoid an incident and to mitigate its potential consequences. To build up the required capabilities, emphasis will be on issues such as: analysing and assessing vulnerabilities of physical infrastructure and its operations; securing existing and future public and private critical networked infrastructures, systems and services with respect to their physical and functional side; control and alert systems to allow for quick response in case of an incident; protection against cascading effects of an incident.

Justification

It would be pertinent to cite the incidences of disasters.

Amendment 159


- Security Systems Integration and interoperability

- Security Systems Integration, interconnection and interoperability

Justification

If the desired interoperability effect between security systems is to be produced, their proper interconnection needs to be ensured.
Amendment 160

Specific international co-operation actions will be considered where there is mutual benefit in line with the EU Security Policy, such as research relating to *security activities of global applicability*.

Specific international co-operation actions will be considered where there is mutual benefit in line with the EU Security Policy, such as research relating to *activities of global applicability linked to security and disasters*.

**Justification**

_The two principle items of the paragraph should also be specified in relation to international cooperation._

Amendment 161
Annex I, 'Themes', section 9.1 ('Security'), subsection 'Responding to emerging needs and unforeseen policy needs'

The Security Research theme is by nature and design flexible. Activities will allow the accommodation of as yet unknown future security threats and related policy needs that may arise. This flexibility will complement the mission-oriented character of the research activities set out above.

The Security Research theme is by nature and design flexible. Activities will allow the accommodation of as yet unknown future *disasters and* security threats and related policy needs that may arise. This flexibility will complement the mission-oriented character of the research activities set out above.

**Justification**

_Here too the text should be adapted to refer to disasters._

Amendment 162
Annex I, part 'Themes', section 9.2 ('Space'), title and subsection 'Objective' (new)

9.2 Space

9a. Space

**Objective**

_Supporting a European Space Programme focusing on applications such as GMES with benefits for citizens and for the competitiveness of the European space_
industry. This will contribute to the development of a European Space Policy, complementing efforts by Member States and by other key players, including the European Space Agency.

**Justification**

*In spite of the links between security and space, these two topics should be dealt with as two clearly defined priorities.*

**Amendment 163**

Annex I, part 'Themes', section 9.2 ('Space'), subsection 'Activities', first heading ('Space-based applications at the service of the European Society'), indent 1, ('Global Monitoring for Environment and Security (GMES)')

The objective is to develop appropriate satellite based monitoring and early warning systems as unique and globally available data sources and to consolidate and stimulate evolution of their operational use. This programme will also provide support to the development of operational GMES services, which enable decision-makers to better anticipate or mitigate crisis situations and issues relating to the management of the environment and security. Research activities should mainly contribute to maximise the use of GMES data collected from space-borne sources and to integrating these with data from other observation systems in complex products designed to deliver information and customised services to end-users through an efficient data integration and information management. Research activities should also contribute to enhance monitoring techniques and associated instrument technologies, to develop where necessary new space-based systems or improve the interoperability of existing ones, and to enable their use in (pre)operational services responding to specific types of demand.

The objective is to develop appropriate satellite based monitoring and early warning systems as unique and globally available data sources and to consolidate and stimulate evolution of their operational use. This programme will also provide support to the development of operational GMES services, which enable decision-makers to better anticipate or mitigate crisis situations and issues relating to the management of the environment and security and the handling of natural disasters. Research activities should mainly contribute to maximise the use of GMES data collected from space-borne sources and to integrating these with data from other observation systems in complex products designed to deliver information and customised services to end-users through an efficient data integration and information management. Research activities should also contribute to enhance monitoring techniques and associated instrument technologies, to develop where necessary new space-based systems or improve the interoperability of existing ones, and to enable their use in (pre)operational services responding to specific types of demand. **Research should support the development of sustainable**
space-based and in situ (including ground-based and airborne) systems for: land monitoring and crisis management, with frequent, high-resolution imagery for zones of high importance, including sensitive, urban and rapidly evolving zones; for risk prevention and risk management and all kinds of emergency, enhancing convergence with non-space systems.

Justification

It has been shown that satellite-based monitoring and surveillance can be highly effective in the prevention and management of natural disasters.

Amendment 164
Annex I, Part 'Themes', subtitle 'Security and Space', section 'Space', heading 'Approach', paragraph 6 a (new)

Assessing and monitoring international commitments, involving Europe, undertaken beyond European borders.

Justification

Earth observation outside Europe is essential and should be mentioned very clearly. It implies specific research and technologies. The Kyoto protocol and other environmental commitments (see chapter 6 “Environment”) as well as economic agreements require that third parties should be monitored. Such is the case of illegal crops, illegal nuclear activities, and in support of UN bodies that usually have no way of their own to implement controls and often rely exclusively on US-originated information. The final purpose is to promote research that would help develop future independent European monitoring capabilities.

Amendment 165
Annex I, part 'Themes', section 9.2 ('Space'), subsection 'Responding to emerging needs and unforeseen policy needs'

Research on emerging needs will enable innovative solutions to technological developments in the space research area, and possible adaptations and applications in other fields (e.g. resources management, biological processes, and new materials). Research to respond to unforeseen policy needs may address topics such as providing space based solutions in support of developing countries, developing new space-
observation and communication tools and methods related to relevant Community policies and contributions to social inclusion.

Special attention will be paid to research aimed at improving the space component of monitoring systems targeting critical infrastructures, such as telecommunication networks, terrestrial and marine transport, energy infrastructures as well as deployments on European networks, mainly beyond Europe’s borders.

Justification

Research aimed at the security of critical infrastructures is far from satisfactory, at a time when such infrastructures are overloaded and overstretched at global level. More and more often, strategic decisions affecting European energy supplies, for instance, are made after taking in the outmost consideration security needs and requirements. An upgrade of research in this field, especially concerning the space component, is thereby urgent.

Amendment 166

Annex II, table

Text proposed by the Commission

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<td>Food, Agriculture and Biotechnology</td>
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<td>Information and Communication Technologies</td>
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<tr>
<td>Nanosciences, Nanotechnologies, Materials and new Production Technologies</td>
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EN
Amendments by Parliament

Health 6 134
Food, Agriculture and Biotechnology 1 935
Information and Communication Technologies 9 020
Nanosciences, Nanotechnologies, Materials and new Production Technologies 3 467
Energy 2 385
Environment (including Climate Change) 1 886
Transport (including Aeronautics) 4 150
Socio-economic Sciences and the Humanities 657
Security 1 429
Space 1 429
TOTAL 32 492

Amendment 167
Annex III, heading 'Joint Technology Initiatives', bullet 5, paragraph 1

Europe must remain at the forefront of key technologies if it is to have sustainable, innovative and competitive aeronautics and air transport industries in the future. As an RTD-intensive industry, the existing competitiveness of the European aeronautical and air transport companies in world markets has been built on significant private research investments (typically 13-15% of the turnover) over many decades. Given the specificities of the sector, new developments often depend on effective cooperation between the public and the private sector.

Europe must remain at the forefront of key technologies if it is to have sustainable, innovative and competitive aeronautics and air transport industries in the future. **There are sectors, such as regional air transport, in which Europe needs to regain its competitiveness also through technologically innovative solutions, and others in which the competitive pressure is increasing. In particular, the development of green technologies is key to ensuring the competitiveness of the entire sector (including rotorcraft and regional aircraft).**

As an RTD-intensive industry, the existing competitiveness of the European aeronautical and air transport companies in world markets has been built on significant private research investments (typically 13-15% of the turnover) over many decades. Given the specificities of the sector, new developments often depend on effective cooperation between the public and the private sector.

**Justification**

*Greening of air transport represents a key technological priority for the entire air transport sector (which includes also rotorcraft and regional aircraft).*
Amendment 168
Annex III, heading 'Joint Technology Initiatives', bullet 5, paragraph 3

In the field of Aeronautics and Air Transport, different areas would be addressed, such as environmentally friendly and cost efficient aircraft ("The Green Aircraft"), and air traffic management in support of the Single European Sky policy and SESAME initiative.

In the field of Aeronautics and Air Transport, different areas would be addressed, such as environmentally friendly and cost efficient air transport system ("The Green Air Transport System"), and air traffic management in support of the Single European Sky policy and SESAME initiative.

Justification

The term 'aircraft' is reductive. The industry currently prefers to use the term 'air transport system'.

Amendment 169
Annex III, section "Joint Technology Initiatives and Risk-Sharing Finance Facility", paragraph 2

The EIB will lend funds raised from international financial markets in accordance with its standard rules, regulations and procedures. It will then use this grant, together with its own funds, as provisions and capital allocation within the bank to cover part of the risks associated with these loans to eligible large European RTD actions.

The EIB will lend funds raised from international financial markets in accordance with its standard rules, regulations and procedures. It will then use this grant, together with its own funds, as provisions and capital allocation within the bank to cover part of the risks associated with these loans to eligible European RTD actions.

Amendment 170
Annex III, heading 'Risk-Sharing Finance Facility', paragraph 4

This grant will be disbursed on a yearly basis. The annual amount will be established in the work programmes, taking into consideration the activity report and forecasts that the EIB will present to the Community.

The overall amount of the grant for the whole period will be proposed in advance, as will be projected annual amounts. This grant will be disbursed on a yearly basis and the annual amount thereof may be revised in the work programmes, taking into consideration the activity report and forecasts that the EIB will present to the Community.
Amendment 171
Annex III, heading 'Risk-Sharing Finance Facility', paragraph 5, bullet 2

The eligibility of large European RTD actions. By default, “Joint Technology Initiatives” and large collaborative projects funded by the Community under the contributing themes and activities of this Specific Programme shall be automatically eligible. Other large European collaborative projects such as EUREKA ones could also be considered. In accordance with the regulation adopted pursuant to Article 167 of the Treaty, the grant agreement will also establish procedural modalities and will guarantee to the Community the possibility to veto under certain circumstances the use of the grant for provisioning a loan proposed by the EIB.

The eligibility of large European RTD actions and of projects proposed by SMEs. By default, “Joint Technology Initiatives” and large collaborative projects funded by the Community under the contributing themes and activities of this Specific Programme shall be automatically eligible. Other large European collaborative projects such as EUREKA ones could also be considered. The eligibility of SMEs should also be made very clear. In accordance with the regulation adopted pursuant to Article 167 of the Treaty, the grant agreement will also establish procedural modalities and will guarantee to the Community the possibility to veto under certain circumstances the use of the grant for provisioning a loan proposed by the EIB.
EXPLANATORY STATEMENT

Towards a Europe of innovation and knowledge
The EU must aspire to excellence, and for this it is vital that it commits itself to an ambitious system of research, development and innovation

The Lisbon European Council proposed a strategy for a new model of economic growth, both environment-friendly and progress-oriented, with scientific research, technological development and innovation as its main tools. Subsequently, the Barcelona European Council proposed the target of increasing overall spending on R&D and innovation to 3% of Union GDP by 2010 (with two-thirds coming from the private sector and the remaining third from the public sector).

Taking as its reference point the Kok report¹, the Locatelli report² sets out the requirements for the EU to be able to meet the 2010 targets: stimulation of private investment in research; an increase in human resources up to 8 researchers per 1000 active workers, or a total of 700 000 new researchers; support for high-quality basic research; closer links between the research and business worlds, notably with SMEs; improved channels of communication between research policies at European, national and regional level (the first-named including the EIB); and cutting red tape and simplifying procedures.

On the basis of the above, the Commission, in April 2005, submitted its proposal for the Seventh Framework Programme (7FP), with a budget of EUR 72.7 bn for the period 2007-2013 (the equivalent of doubling the 7FP budget), following the line advocated in the Böge report which had obtained overwhelming support in Parliament.

Concerning the content of the 7FP, Parliament expresses its agreement in general terms with the Commission's proposal, and makes it clear that only if the level of funding proposed by the Commission and Parliament is maintained will it be possible to ensure that the targets are met.

However, the European Council agreement of December 2005 and the Council/Parliament agreement on the financial perspective for 2007-2013 both assign a total in appropriations for the 7FP that is almost 30% less than that of the Commission's initial proposal, even though the latter agreement proposes a radical review of the Community budget in 2009. The Commission and Council will then have to agree with Parliament on introducing a significant increase in appropriations, in line with the requirements of the 7FP and, in particular, this specific regime, with a view to the targets being met.

The specific programme on cooperation represents, in terms of the initial Commission proposal, 61% of the total budget of the 7FP. The aim is to enable the EU to assume a cutting-edge position in a number of specific scientific and technological/strategic areas, by means of cooperation between universities, research centres, industry and other institutions, both within the EU and in third countries. The Commission proposal sets out nine priority 'Themes',

² Texts adopted, P6_TA (2005) 0077

PE 368.072v01-00 102/155 RR:637505EN.doc
characterised by a high degree of continuity with the 6FP, and proposes a number of improvements aimed at facilitating access to the programmes for research groups.

Your rapporteur, in general terms, endorses the structure and content of the Commission proposal. She nonetheless believes that further clarification is needed on the following points:

**Multidisciplinarity and interdisciplinarity.** Major scientific progress will be much facilitated if there are joint proposals for technological and scientific 'Themes' that are applicable to more than one theme and, regarding interdisciplinarity, certain complex issues of the priority 'Themes' are approached simultaneously via more than one discipline.

**Reinforcement of the role of industry via the technological platforms.** If the targets of the Barcelona European Council are to be achieved and competitiveness is to be boosted, it is vital to operate a structured dialogue and to ensure cooperation with industry and between industry and research centres.

**Joint technological initiatives.** These are required, essentially, so as to give continuity to the technological platforms, which, in a limited number of cases, could bring into being public-private partnerships of a more integrated, ambitious and long-term nature. These would be managed by joint ventures, regarding which the level of the capital input provided by the Commission requires the opinion of Parliament, as is obligatory under Article 171. Since this involves new technical and financial management instruments for participation in the specific programme for cooperation, the Commission will have to establish management structures which ensure compliance with the criteria, transparency as regards priorities, and sound and efficient management, reporting regularly on all these aspects to Parliament.

**Participation of SMEs.** Mechanisms must be put in place to ensure the real participation of SMEs in the actions and projects under the priority 'Themes' of the 'Cooperation' programme. The Commission proposal needs more precise definition concerning the following aspects:

a) setting concrete objectives for participation and for the budget of the 'Cooperation' programme (20%);
b) seeking the highest possible level of contribution from all the Community funds, including the EIB (European Investment Bank) and EIF (European Investment Fund), for the financing of projects including the participation of SMEs;
c) establishing mechanisms for the creation of regional, thematic or territorial groupings with a view to enhancing participation capacity;
d) improving and simplifying the administrative procedures.

On this point, it is important to establish specific measures for coordination with the specific programme 'Capacities' and with the Programme for Competitiveness and Innovation.

**Complementarity and synergy.** It is important to develop complementarity and synergy between the specific programme 'Cooperation' and other Community actions and programmes, such as the Programme for Competitiveness and Innovation, the Structural Funds, and others which may be potential sources of funding for actions, infrastructures or projects in the field of R&D or innovation.
In practice, this is not easy to implement thanks to the restrictions existing under the rules which we ourselves have put in place for the use of the funds and the management of the programmes. A procedure is proposed for submitting integrated programmes on a basis of combining efforts while not duplicating them. This point should be included in the participation rules.

**Budget review.** Since the agreement reached by Parliament and the Council on the financial perspective for 2007-2013 does not offer the financial means required for full achievement of the objectives of the 7FP, or in particular, those of the specific programme 'Cooperation', your rapporteur suggests that, in the context of the review of the financial framework promised for 2009, a proposal should be submitted that properly reflects the Union's aspirations in this field.

**Response to new needs and opportunities.** The specific programme 'Cooperation' needs to be open-ended and flexible enough to respond to the needs of those areas where progress is especially rapid, ever-changing and difficult to predict at seven years' distance, and also to face the various political demands that may arise out of unforeseen circumstances and will call for rapid reaction (epidemics, etc).

**Coordination with the Member States.** It is necessary to reinforce the mechanisms for the coordination of Member States' and regions' R&D and innovation programmes with the framework programme and, in particular, this specific programme, so as to achieve the optimisation of financial resources, combine but not duplicate efforts, and build an authentic European Research Area.

**The European Research Area.** It is essential to reinforce the principle of prioritising actions in the Community area rather than the intergovernmental method. In other words, intergovernmental cooperation, as in the ERA NET context, should be favoured only if the actions coincide with the objectives of the 7FP and if the proponents facilitate and ensure the possibility of participating on a footing of equality with other actors from other Member States.

**The universities as an essential network of research and teaching centres.** More than 60% of research in the EU takes place in the universities, and it is there that the great majority of researchers receive their education. This is another key area that needs stressing in the report. It should also be taken into account in any future decisions concerning the organisation of science and technology in the EU and the possible creation of new centres of excellence in the research context, such as a future European Institute of Technology.

**Technology transfer.** There is sufficient knowledge of the problems of interlinking the business and research worlds (in both directions). It is necessary to provide and develop mechanisms and incentives to ensure that the transfer of knowledge, skills and technologies takes place in such a way that the research findings are brought to the attention of employers, especially SMEs, and can be assimilated and used by them.

**International cooperation.** Cooperation with non-EU countries should be centred on those 'Themes' for which it can provide a significant added value, and should be of two types: cooperation with industrialised countries on specific 'Themes' of mutual interest, with priority

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for the 'Themes' of this programme; and cooperation with developing countries on programmes aimed at promoting improvements in economic development, health, social welfare and environmental sustainability.

**Bridging the digital divide.** The figures show that the technological gap between the EU's Member States and regions is wider than the economic or quality of life gap. It is therefore essential that the specific programme 'Cooperation' should pay special attention to boosting convergence between the Union's Member States and regions in the field of science and technology, with effective measures for closing the technological gap between territorial units.

**Dissemination of science.** The specific programme 'cooperation' should also contribute to the dissemination of science, with the aim of bringing science and technology closer to society: this should be reflected in both the preparation and the execution of projects.

**The role of the European Parliament.** The EP needs to play a more prominent role in following up and monitoring the execution of the framework programme and, in particular, of this specific programme. Parliament should be informed of, and should be able to give its opinion on, the work programme referred to in Article 6 and any adjustment thereto, as well as the budget breakdown.

**Joint funding instruments with the EIB.** The Commission's proposal establishes an EIB subsidy. This should have the objective of contributing in a broad sense to facilitating and encouraging private-sector investment in R&D. The shared-risk mechanism may have limitations of scope (credits only) and volume (large projects only): it is therefore necessary to explore all possibilities of joint activity with the EIB, and the EIF where relevant, in order to achieve, proportionately to the public effort represented by the framework programme, the objective set by the Barcelona summit that two-thirds of investment should come from the private sector. Every effort should be made to ensure that the EIB's funding offer in this new context corresponds to and supports the demand which needs to be stimulated by the work with the Technological Platforms and Joint Technological Initiatives.
22.6.2006

OPINION OF THE COMMITTEE ON BUDGETS

for the Committee on Industry, Research and Energy


Draftswoman: Marilisa Xenogiannakopoulou

SHORT JUSTIFICATION

1. Main elements of the proposal

The proposal for the specific programmes is based on Title XVIII of the Treaty, Articles 163 to 173, and in particular Article 166(3) concerning implementation of the Framework Programme through specific programmes.

The Commission intends to set up an executive agency which will be entrusted with certain tasks required to implement the “Cooperation”, “People” and “Capacities” specific programmes. This approach will also be taken for the implementation of the “Ideas” programme.

The Cooperation specific programme is designed to gain leadership in key scientific and technological areas by supporting cooperation between universities, industry, research centres and public authorities across the European Union as well as the rest of the world. Previous framework programmes demonstrate the impact of such actions in restructuring research in Europe and pooling and leveraging resources.
The 7th Framework Programme will distribute these impacts more widely and the nine themes proposed correspond to the major fields of progress in knowledge and technology where excellent research must be strengthened to address European social, economic, public health, environmental and industrial challenges.

There are important novelties in this specific programme which require specific consideration for the implementation:

- Responding to the need for ambitious pan-European public private partnerships to accelerate the development of major technologies, through the launch of Joint Technology Initiatives;
- A strengthened approach to the coordinating national research programmes (ERA-NET scheme);
- Initiatives in the fields of ambient assisted living, Baltic Sea research and metrology (so called Article 169 initiatives);
- international cooperation (through policy dialogues and networks with different regions of partner countries);
- A flexible response to emerging needs and unforeseen policy needs.

2. Recommendations by the draftswoman

For reasons of coherence, the draftswoman proposes the same set of amendments to all 7 specific research programmes. A standard amendment refers to the multiannual financial framework and the need to respect the ceiling of heading 1 a.

The following proposed amendments include the idea of sound financial management and efficient implementation of the actions financed under the specific programme.

In order to improve the financial monitoring of Community-financed research activities, the draftswoman considers that the Commission should inform the budgetary authority on the implementation of the specific programmes on a regular basis and provide prior information whenever it intends to depart from the breakdown of expenditure stated in the general budget.

**AMENDMENTS**

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

**Draft legislative resolution**
Amendment 1
Paragraph 1 a (new)

1a. Considers that the indicative financial reference amount indicated in the legislative proposal must be compatible with the ceiling of heading 1a of the new multiannual financial framework (MFF) and points out that the annual amount will be decided within the annual budgetary procedure in accordance with the provisions of point 38 of the IIA of 17 May 2006;

Justification

Standard amendment.

Proposal for a decision

Text proposed by the Commission

Amendments by Parliament

Amendment 2
Article 3, paragraph 1 a (new)

The Commission shall take all necessary steps to verify that the actions financed are carried out effectively and in compliance with the provisions of the Financial Regulation.

Amendment 3
Article 3, paragraph 1 b (new)

The overall administrative expenditure of the programme including internal and management expenditure for the Executive Agency should be proportional to the tasks provided for in the programme concerned and is subject to the decision of the budgetary and legislative authorities.

Justification

The appropriations allocated to the Executive Agency should comply with the provisions of the Code of conduct on the setting up of an Executive agency and Council Regulation N°58/2003 laying down the statute for executive agencies to be entrusted with certain tasks in the management of Community programs. This will ensure appropriate financing of the actions of the programme.

Amendment 4
Article 3, paragraph 1 c (new)

Budget appropriations shall be used in accordance with the principle of sound financial management, namely in accordance with the principles of economy, efficiency and effectiveness, as well as the principle of proportionality.

Amendment 5
Article 5 a (new)

Article 5a

The Commission shall provide prior information to the budgetary authority whenever it intends to depart from the breakdown of expenditure stated in the remarks and annex of the annual budget.

Justification

This procedure was introduced as a result of an agreement between the Committee on Budgets and the Commission in October 1999. The draftswoman considers that the procedure should be maintained to improve the follow-up of the use of funds in the specific programmes of FP7.

Amendment 6
Article 8, paragraph 5 a (new)

5a. The evaluation report shall contain an assessment of the soundness of financial management. It shall contain an evaluation
of the efficiency and regularity of the budgetary and economic management of the programme.
## PROCEDURE

| Title | 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 |
| Committee responsible | ITRE |
| Opinion by | BUDG |
| Date announced in plenary | 17.11.2005 |
| Enhanced cooperation – date announced in plenary | 0.0.0000 |
| Drafts(wo)man | Marilisa Xenogiannakopoulou |
| Date appointed | 20.9.2004 |
| Previous drafts(wo)man | |
| Discussed in committee | 22.6.2006 |
| Date adopted | 22.6.2006 |
| Result of final vote | +: 16  
|  | -: 0  
|  | 0: 0 |
| Members present for the final vote | Herbert Bösch, Simon Busuttil, Bárbara Dührkop Dührkop, Markus Ferber, Ingeborg Gräßle, Nathalie Griesbeck, Anne E. Jensen, Wiesław Stefan Kuc, Janusz Lewandowski, Vladimir Maňka, Antonis Samaras, Esko Seppänen, Nina Škottová, Helga Trüpel, Yannick Vaugrenard, Ralf Walter |
| Substitute(s) present for the final vote | |
| Substitute(s) under Rule 178(2) present for the final vote | |
| Comments (available in one language only) | ... |
28.2.2006

OPINION OF THE COMMITTEE ON TRANSPORT AND TOURISM

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

Draftsman: Jaromír Kohlíček

SHORT JUSTIFICATION

The 7th Framework Programme: state of play

On 6 April 2005 the Commission presented its proposal for a Decision of the European Parliament and the Council concerning the seventh Framework Programme (FP7) for research, technological development and demonstration activities (2007 to 2013). On 11 October 2005 the TRAN committee adopted an opinion on this proposal, amending the thematic part on transport and aeronautics, which was transferred to the ITRE committee. The ITRE committee had decided, also in the light of the uncertainty on the Financial Perspectives 2007-2013, to precede its report by two working documents, presented in June and October 2005. The draft report of ITRE will be presented in January 2006. Your draftsman has suggested to the ITRE rapporteur Mr. Buzek to include all TRAN amendments and to avoid including amendments that may conflict with the ones of the TRAN committee.

Meanwhile, the Commission presented a new proposal for a Council Decision on 21 September 2005, which concerns only the specific programme 'Cooperation' of the FP7. The Cooperation programme is the part of FP7 that identifies the nine thematic research areas, one of which is transport and aeronautics. The ITRE committee will make a separate report on this proposal, of which it should be noted that Parliament is only asked for consultation.

Transport and aeronautics in the Cooperation programme: differences from the general FP7 proposal

The proposal for the Cooperation programme is in many ways a specification of what was already mentioned in the general proposal for FP7. As transport and aeronautics are concerned, the proposal follows the same structure, presenting first objective and approach,
then activities in aeronautics and air transport, surface transport and Galileo.

The following differences or additions compared to the general FP7 proposal can be noted:

Objective and approach:
Safer transport is added to the objectives. The approach of the Cooperation programme is characterised as 'integrated', linking all transport modes. Cross-cutting thematic topics shall focus on transport specificities, such as security. Instead of speaking of 'the clean and safe vehicle of the future', a more general wording is used, speaking of 'alternative energy sources in transport applications' and 'environmental effects ... including climate change'. More emphasis is laid on the work of Technology Platforms and their Strategic Research Agenda's, which may justify the setting up of Joint Technology Initiatives. Attention is given to activities of particular relevance to SMEs and impact assessments.

Activities in aeronautics and air transport:
Some quantitative targets are added, such as a reduction in emissions (CO2 and noise by 50%, NOx by 80%), a five fold reduction in accident rates and halving the time to the market for new products. Under ensuring customer satisfaction and safety research on adapting airport and air traffic operations to different type of vehicles and '24-hour utilisation at acceptable community noise levels' is mentioned. For increasing time efficiency the focus is put on the SESAME initiative. Speaking of the air transport of the future some new concepts are added, such as new propulsion and lifting concepts and new methods of aircraft guidance.

Activities in surface transport (rail, road and waterborne):
The explanatory texts are a more detailed and some new emphasis is added. For instance, mention is made of fuel cells (for greening), loading and unloading (for modal shift), demand management (for urban mobility), risk analysis (for safety and security) and decreasing life cycle costs (for competitiveness).

Activities for Galileo:
This paragraph is substantially extended, mentioning all kinds of possible applications of the Galileo system (e.g. cartography or navigation) and important aspects to be taken into account (e.g. opening to commercial access or ensuring safe use through certification).

Other additions:
Two new subheadings have been added: one to stress the importance of international cooperation and another to note that research should also be able to respond to unforeseen policy needs.

Amendments

By the time of publication of this Commission proposal on the Cooperation programme, Parliament had not yet adopted its report on the general FP7 proposal. This Commission proposal does therefore not (yet) take Parliament's amendments to the general proposal into account. As this new proposal is so similar to the former one, your draftsman proposes amendments similar to those made to the general proposal.
## AMENDMENTS

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

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendments by Parliament</th>
</tr>
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### Amendment 1

Article 2, paragraph 1, point (g)

(g) Transport (including Aeronautics);

(g) Transport (including Aeronautics and maritime technology), notably Galileo, SESAR and ERTMS *

*Galileo is the European satellite navigation programme, SESAR is the Single European Sky ATM Research programme and ERTMS is the European Rail Traffic Management System.

### Justification

Europe ought to maintain its lead in maritime technology research. For Galileo, SESAR and ERTMS: adjustment to take account of the Council decision on the new Financial Perspectives.

### Amendment 2

Annex I, Section 7, Transport (including Aeronautics), heading

Transport (including Aeronautics)  

Transport (including Aeronautics and maritime technology), notably Galileo, SESAR and ERTMS

### Justification

Europe ought to maintain its lead in maritime technology research. For Galileo, SESAR and ERTMS: adjustment to take account of the Council decision on the new Financial Perspectives.
Amendment 3
Annex I, Section 7, Transport, Objective

Based on technological advances, develop integrated, “greener”, “smarter” and safer pan-European transport systems for the benefit of the citizen and society, respecting the environment and natural resources; and securing and further developing the competitiveness and the leading role attained by the European industries in the global market.

Permanent development of competitive and passenger friendly European transport systems, for the benefit of European citizens and industries in the global market. Technological advances, sustainable development, “greener”, “smarter”, "cheaper but better", safer and more customer-friendly pan-European and global transport and logistics systems are the objective for the Seventh Framework Programme in the transport and logistics sector.

Justification

The first and most important goal is to create competitiveness and next the research background should be placed, as a means to support the main goal. The inclusion of customer friendliness is in line with the spirit of the Commission proposal. Given the EU's global transport relations and the development of its transport systems, it is vital to mention also new and improved logistical systems, that will help both improve mobility and reduce environmental impact.

Amendment 4
Annex I, Section 7, Transport, Approach, paragraph 1

The European transport system is a vital element to European economic and social prosperity. It serves key roles in the transportation of people and goods in a local, regional, national, European and international context. This theme will address some of the ongoing challenges, as recognised in the White Paper on Transport, in improving the contributions that transport systems make to society and industrial competitiveness within an enlarged EU, whilst minimising the negative impacts and consequences of transport in relation to the environment, energy usage, security and public health.

The European and global transport system is a vital element to European economic and social prosperity. Not only is there a considerable volume of internal transport between Member States along with major transport links with third countries, but European companies, particularly in the air and sea transport sectors, are dominant in many areas, even in regard to transport between third countries, either in terms of transport services or of deliveries of advanced equipment. This theme will address some of the ongoing challenges, as recognised in the White Paper on Transport, in improving the contributions that transport systems make to society and industrial competitiveness within an enlarged EU, whilst minimising the negative impacts and
consequences of transport in relation to the environment, energy usage, security and public health. *The repartition of the budget for transport research will reflect the economic importance of the various transport modes.*

**Justification**

*The European transport sector needs to be seen in a global context. Furthermore, as surface transport has in economical terms a far greater share than air transport, this should be reflected in the repartition of the budget and the research agenda's. As the Commission indicated herself in the general proposal for the seventh framework programme COM(2005)0043, surface transport accounts for 11% of EU GDP and 16 million persons employed, and air transport only for 2.6% and 3.1 million.*

**Amendment 5**

Annex I, Section 7, Transport (including Aeronautics), Approach, paragraph 3

The various Technology Platforms set up in this field (ACARE for aeronautics and air transport, ERRAC for rail transport, ERTRAC for road transport, WATERBORNE for waterborne transport, Hydrogen and Fuel cells) have elaborated long-term visions and Strategic Research Agendas (SRA) which constitute useful inputs to the definition of this theme and complement the needs of policy makers and expectations of society. Selected aspects of the SRAs may justify setting up Joint Technology Initiatives. ERA-NET activities present opportunities to facilitate further trans-national coordination for specific topics within the Transport sector and will be pursued wherever appropriate.

The various Technology Platforms set up in this field (ACARE for aeronautics and air transport, ERRAC for rail transport, ERTRAC for road transport, WATERBORNE for waterborne transport and maritime technology, Hydrogen and Fuel cells) have elaborated long-term visions and Strategic Research Agendas (SRA) which constitute useful inputs to the definition of this theme and complement the needs of policy makers and expectations of society. Selected aspects of the SRAs may justify setting up Joint Technology Initiatives. ERA-NET activities present opportunities to facilitate further trans-national coordination for specific topics within the Transport sector and will be pursued wherever appropriate.

**Justification**

*Europe ought to maintain its lead in maritime technology research.*
Amendment 6
Annex I, Section 7, Transport (including Aeronautics), Approach, paragraph 5

Existing policy needs as well as the development, assessment and implementation of new policies (for example Maritime Policy), will be addressed within and across the different activity lines. The work will include studies, models and tools that deal with strategic monitoring and forecasting and integrate knowledge relating to the main economic, social, safety and environmental issues for transport. Activities supporting cross-cutting thematic topics will focus on transport specificities, for example security aspects as an inherent requirement to the transport system; the use of alternative energy sources in transport applications; and monitoring of environmental effects of transport, including climate change.

Justification

Following on from the text proposed by the draftsman, this amendment proposes that the measures to be pursued under the heading of cooperation should be such as to lessen the adverse effects stemming from permanent geographical constraints.

Amendment 7
Annex I, Section 7, Transport (including Aeronautics), Activities, sub-heading Aeronautics and air transport

Aeronautics and air transport

Aeronautics and sustainable air transport
Justification

Consistent with Article 2 TEC and the Göteborg European Council.

Amendment 8
Annex I, Section 7, Transport (including Aeronautics), Activities, sub-heading Aeronautics and air transport, paragraph 4

Introducing a quantum leap in passenger choice and schedule flexibility, whilst achieving a five-fold reduction in accident rate. New technologies will enable a wider choice of aircraft/engine configurations ranging from wide body to small size vehicles, increased levels of automation in all the elements of the system, including the piloting. Focus will also be on improvements for passengers' comfort, well being and new services and active and passive safety measures with special emphasis on the human element. Research will include the adaptation of airport and air traffic operations to different type of vehicles and 24-hour utilisation at acceptable community noise levels.

Introducing a quantum leap in passenger choice and schedule flexibility, whilst achieving a fivefold reduction in the accident rate. New technologies will enable a wider choice of aircraft/engine configurations ranging from wide-body to small-size vehicles, increased levels of automation in all the elements of the system, including the piloting, and will make national information and booking systems interoperable in terms of carriers and modes on a Europe-wide scale. Focus will also be on improvements for passengers’ comfort, well-being and new services and active and passive safety measures with special emphasis on the human element. Research will include the adaptation of airport and air traffic operations to different geographical conditions and types of vehicles and 24-hour utilisation at acceptable community noise levels.

Justification

Better integration of booking systems raises not only customers' satisfaction, but also the efficiency of the system as a whole, for all geographical conditions.

Amendment 9
Annex I, Section 7, Transport (including Aeronautics), Activities, sub-heading Aeronautics and air transport, paragraph 5

Improving cost efficiency: Fostering a competitive supply chain able to halve the

Improving cost efficiency: Fostering a competitive supply chain able to halve the
time-to-market, and reduce product development and operational cost, resulting in more affordable transport for the citizen. Research will focus on improvements to the whole business process, from conceptual design to product development, manufacturing and in-service operations including the integration of the supply chain. It will include improved simulation capabilities and automation, technologies and methods for the realisation of the zero-maintenance aircraft, as well as lean aircraft, airport and air traffic management operations.

time-to-market, and reduce product development and operational cost, for example by exploiting the results of the System for Mobile Maintenance Accessible in Real Time (SMMART) project, resulting in more affordable transport for the citizen. Research will focus on improvements to the whole business process, from conceptual design to product development, manufacturing and in-service operations including the integration of the supply chain. It will include improved simulation capabilities and automation, technologies and methods for the realisation of the zero-maintenance aircraft, as well as lean aircraft, airport and air traffic management operations.

Justification

It is desired to profit from the potential achievements of the 6th Framework Programme, part of which is SMMART - System for Mobile Maintenance Accessible in Real Time. The aim of SMMART research is to make more efficient and to shorten the spare parts supply chain in the aviation industry.

Amendment 10

Annex I, Section 7, Transport (including Aeronautics), Activities, sub-heading Aeronautics and air transport, paragraph 6

Protection of aircraft and passengers:
Preventing hostile action of any kind to incur injury, loss, damage or disruption to travellers or citizens due to the effects of aircraft misuse. Research will focus on the relevant elements of the air transport system including security measures in cabin and cockpit designs, automatic control and landing in the case of unauthorised use of aircraft, protection against external attacks, as well as security aspects of airspace management and airport operations.

Protection of aircraft and passengers:
Preventing hostile action of any kind to incur injury, loss, damage or disruption to travellers or citizens due to the effects of aircraft misuse. Research will focus on the relevant elements of the air transport system including security measures in cabin and cockpit designs, automatic control and landing in the case of unauthorised use of aircraft, protection against external attacks, as well as security aspects of airspace management and airport operations, and aspects related to physical constraints or severe weather conditions.


**Justification**

*The amendment aims to bring as many areas as possible within the scope of the future research.*

Amendment 11

Annex I, Section 7, Transport (including Aeronautics), Activities, sub-heading Aeronautics and air transport, paragraph 7

Pioneering the air transport of the future:
Exploring more radical, environmentally efficient and innovative technologies that might facilitate the step change required for air transport in the second half of this century and beyond. Research will address aspects such as new propulsion and lifting concepts, new *ideas for the* interior space of airborne vehicles, new airport concepts, new methods of aircraft guidance and control, alternative *concepts* of air transport system operation and its integration with other transport modes.

Pioneering the air transport of the future:
Exploring more radical, environmentally efficient and innovative technologies that might facilitate the step change required for air transport in the second half of this century and beyond. Research will address aspects such as new propulsion and lifting concepts, new interior space *designs for* airborne vehicles, new airport concepts, new methods of aircraft guidance and control, alternative *ways* of air transport system operation and its integration with other transport modes, *and new ideas aimed at minimising the effects of adverse geographical constraints.*

**Justification**

*The air transport of the future must offer new ways to minimise the effects stemming from permanent geographical constraints existing in the regions or countries where such transport is to be used.*

Amendment 12

Annex I, Section 7, Transport, Activities, subheading Surface transport

Surface Transport (rail, road and waterborne)  

**Sustainable** Surface Transport (rail, road and waterborne)

**Justification**

*Similar as in the 6th Framework programme, the heading should include the word*
'sustainable', as Art. 6 of the Treaty obliges to integrate sustainable development into e.g. the research and transport sectors.

Amendment 13
Annex I, Section 7, Transport (including Aeronautics), Activities, sub-heading Surface transport (rail, road and waterborne), paragraph 1

The greening of surface transport:

Developing technologies and knowledge for reduced pollution (air, water and soil) and environmental impact such as climate change, health, biodiversity and noise. Research will improve the cleanliness and energy-efficiency of power-trains and promote the use of alternative fuels, including hydrogen and fuel cells. Activities will cover infrastructure, vehicles, vessels and component technologies, including overall system optimisation. Research in developments specific to transport will include manufacturing, construction, operations, maintenance, repair, inspection, recycling, end of life strategies and interventions at sea in case of accident.

The greening of surface transport: Improving methodologies for calculating external social and environmental costs and developing technologies and knowledge for reduced pollution (air, water and soil) and environmental impact such as climate change, health, biodiversity and noise. Research will improve the cleanliness and energy-efficiency of power-trains and promote the use of alternative fuels, including hydrogen, fuel cells, and biomass. Activities will cover infrastructure, vehicles, vessels and component technologies, including overall system optimisation. Research in developments specific to transport will include manufacturing, construction, operations, maintenance, repair, inspection, recycling, end of life strategies and interventions at sea in case of accident. Research will create the basis for targeted/risk-related design and hence for better safety and efficiency on ships and off-shore structures, improve the operability and maintenance of ships and identify new systems for safeguarding maritime operations. At the same time, environmental pollution must be further reduced in order to ensure that an environmentally acceptable level of development can be guaranteed with the anticipated increase in the volume of shipping.

Justification

The decision on the new Eurovignette 2 Directive includes the aim of developing methodologies for calculating external environmental and social costs. Biomass is considered
a possible source of alternative energy for the immediate future and consequently cannot be excluded from the projected research in the field of propulsion. Furthermore there is a need to include maritime research in the greening of surface transport.

Amendment 14
Annex I, Section 7, Transport (including Aeronautics), Activities, sub-heading Surface transport (rail, road and waterborne), paragraph 2

Encouraging modal shift and decongesting transport corridors: Developing and demonstrating seamless door-to-door transport for people and goods as well as technologies to ensure effective intermodality, including in the context of rail transport competitiveness. This includes activities addressing the interoperability and operational optimisation of local, regional, national and European transport networks, systems and services and their intermodal integration. The activities will aim at optimised use of infrastructure including terminals and specialised networks, improved transport, traffic and information management, enhanced freight logistics and passenger intermodality. Intelligent systems, new vehicle/vessel concepts and technologies including loading and unloading operations will be developed. Knowledge for policy making will include infrastructure pricing and charging, assessments of EU transport policy measures and trans-European networks policy and projects.
Justification

A "single system approach" means that transport in a certain area is looked at as one system, and transport needs in that area can be served by the modality that suits best the specific needs of customer, supplier and environment. Research can help to develop technologies and user applications to achieve such an approach, thereby promoting "green" rail, inland waterway and short sea transport. ERTMS is important within TEN-T. Further accompanying research on standardisation, stabilisation and new experiences should be developed.

Amendment 15
Annex I, Section 7, Transport, Activities, subheading Surface transport, paragraph 3

Ensuring sustainable urban mobility:
Focusing on the mobility of people and goods by research on the ‘next generation vehicle’ and its market take-up, bringing together all elements of a clean, energy efficient, safe and intelligent road transport. Research on new mobility concepts, innovative organisational and mobility management schemes and high quality public transport will aim at ensuring access for all and high levels of intermodal integration. Innovative strategies for clean urban transport will be developed and tested. Particular attention will be paid to non-polluting modes of transport, demand management, rationalisation of private transport, and information and communication strategies, services and infrastructures. Tools supporting policy development and implementation will include transport and land use planning.

Ensuring sustainable urban mobility:
Focusing on the mobility of people and goods by research on the ‘next generation vehicle’ and its market take-up, bringing together all elements of a clean, energy efficient, safe and intelligent road transport. Research on new mobility concepts, innovative organisational and mobility management schemes and high quality public transport will aim at ensuring access for all and high levels of intermodal integration. Innovative strategies for clean urban transport will be developed and tested. Particular attention will be paid to non-polluting modes of transport, demand management, rationalisation of private transport, and information and communication strategies, services and infrastructures.

Focus will also be on quality of mobility and user satisfaction, in particular for persons with reduced mobility and specific groups like older people and women. Tools supporting policy development and implementation will include transport and land use planning.

Justification

In the light of demographic change and the new mobility needs of European society at present, it is important to anticipate changes in the sensitivity and perceptions of surface transport users (convenience, preferences, etc.). Although accessibility, especially for persons with reduced mobility, is more and more recognised as important, more research on this issue
is needed. Special attention can be given to measures that have positive spill over effects to other transport users as well. For instance, lowering doorsteps and creating space in busses for wheel chairs, proves to be beneficial to the general user as well (easier access, gain of time at the bus stop, multiple use of space).

Amendment 16
Annex I, Section 7, Transport, Activities, subheading Surface transport, paragraph 5

Strengthening competitiveness: Improving the competitiveness of transport industries, ensuring sustainable, efficient and affordable transport services and creating new skills and job opportunities by research and developments. Technologies for advanced industrial processes will include design, manufacturing, assembly, construction and maintenance and will aim at decreasing life cycle costs and development lead-times. Emphasis will be placed on innovative product concepts and improved transport services ensuring higher customer satisfaction. New production organisation including the supply chain management and distribution systems will be developed.

Research should also focus on new systems to improve the efficiency and guarantee the funding of TENs and other European mobility and transport projects, encouraging innovative loan schemes and PPPs at European level.

Justification

More competitiveness can not only be reached in the construction and maintenance of vehicles, but also in new ways of infrastructure funding.

Amendment 17
Annex I, Section 7, Transport (including Aeronautics), sub-heading Support to the European global satellite navigation system (Galileo), paragraph 2

Exploiting the full potential: promoting growth in the use of the services ranging from open to commercial access, safety-of-life to “search and rescue” and public...
regulated service; freight transport management applications; exploiting by-product services; demonstrating the benefits and efficiencies of satellite navigation.

from the European mainland, safety-of-life to “search and rescue” and public regulated service; freight transport management applications; exploiting by-product services; demonstrating the benefits and efficiencies of satellite navigation.

Justification

The use of the European global satellite navigation system (Galileo) in the regions geographically most remote from the European mainland will be a key means of promoting the development of a transport system capable of coping effectively with the constraints resulting from the geographical location of certain European regions.

Amendment 18
Annex I, Section 7, Transport (including Aeronautics), Activities, sub-heading International cooperation

International co-operation is an important component of the RTD activities in this field, and will be encouraged where there are interests for industry and policy-makers. Broad topic areas for specific actions will be where there is market attraction (for example global trade development and connecting networks and services at continental and intercontinental level); opportunities to access and acquire science and technology that is complementary to the current European knowledge and of mutual benefit; and where Europe responds to global needs (for example climate change) or contributes to international standards and global systems (for example applied logistics and satellite navigation infrastructure).

International cooperation is an important component of the RTD activities in this field, and will be encouraged where there are interests for industry and policy-makers. Broad topic areas for specific actions will be where there is market attraction adjacent to or more distant from Europe's centre (for example global trade development and connecting networks and services at continental and intercontinental level); opportunities to access and acquire science and technology that are complementary to the current European knowledge and of mutual benefit; and where Europe responds to global needs (for example climate change) or contributes to international standards and global systems (for example applied logistics and satellite navigation infrastructure).

Justification

Linguistic clarification.
Initiatives under emerging needs will support research that responds to critical events and challenges of future transportation systems for example novel transport and vehicle concepts, automation, mobility or organisation.

Initiatives under emerging needs will support research that responds to critical events and challenges of future transportation systems, for example novel transport and vehicle concepts, automation, mobility or organisation, or the concept of innovative, sustainable European logistics to act as a catalyst for growth and cohesion.

Justification

To anticipate the boost that the Commission will give to logistics in the near future, bearing in mind that European capacity needs to be upgraded and expanded in a sector with a key role to play in rationalising traffic, energy use, and environmental impact while making for territorial cohesion and a competitive service for users.

Amendment 20
Annex I, Section 7, Transport, Activities, subheading Tourism (new)

Tourism

Carrying out research into the effects of tourism on transport and the effects of clean and efficient transport on the sustainable development of tourism; developing sustainable tourism without excessive transport demand; innovative concepts for the use of transport in the tourist sector, including electronic reservations and integrated ticketing.

Justification

As tourism and transport are closely linked, research into the connections between the two sectors should be added. Innovative solutions, such as electronic reservations and integrated ticketing, may be particularly important for the tourist market.
Amendment 21
Annex II, ninth line

Transport (including Aeronautics)  Transport (including Aeronautics and maritime technology)

Justification

Europe ought to maintain its lead in maritime technology research.

Amendment 22
Legislative Financial Statement, Section 3.1. Budget lines

02 04 01 Space; 02 04 02 Preparatory action for the enhancement of European security research; 08 02 01 Genomics and biotechnology for health; 08 05 01 Food quality and safety; 09 04 01 Information society technologies; 08 03 01 Nanotechnologies, intelligent materials, new production processes and devices; 08 06 01 Sustainable energy systems; 06 06 02 01 Sustainable energy systems; 08 06 01 03 Global change and ecosystems; 08 04 01 Aeronautics; 08 06 01 02 Sustainable surface transport; 06 06 01 Aeronautics and space; 06 06 02 02 Sustainable surface transport; 08 07 01 Citizens and governance in a knowledge-based society; 08 08 01 01 – 06 06 03 – 09 04 02 – 11 05 01 - Supporting policies and anticipating scientific and technological needs.

02 04 01 Space; 02 04 02 Preparatory action for the enhancement of European security research; 08 02 01 Genomics and biotechnology for health; 08 05 01 Food quality and safety; 09 04 01 Information society technologies; 08 03 01 Nanotechnologies, intelligent materials, new production processes and devices; 08 06 01 Sustainable energy systems; 06 06 02 01 Sustainable energy systems; 08 06 01 03 Global change and ecosystems; 08 04 01 Aeronautics; 08 06 01 02 Sustainable surface transport; 06 06 01 Aeronautics and space; 06 06 02 02 Sustainable surface transport; 06 06 01 TEN-T (Galileo only, "second specific action"); 08 07 01 Citizens and governance in a knowledge-based society; 08 08 01 01 – 06 06 03 – 09 04 02 – 11 05 01 - Supporting policies and anticipating scientific and technological needs.

Justification

Adjustment to take account of the Council decision on the new Financial Perspectives.
Amendment 23
Legislative Financial Statement, Section 5.3, point 7

(7) Transport (including Aeronautics)  (7) Transport (including Aeronautics *and* maritime technology), notably Galileo, SESAR and ERTMS

*Justification*

*For Galileo, SESAR and ERTMS: adjustment to take account of the Council decision on the new Financial Perspectives. Europe ought to maintain its lead in maritime technology research.*
### PROCEDURE

| Title | 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 |
| Committee responsible | ITRE |
| Opinion by | TRAN 17.11.2005 |
| Enhanced cooperation – date announced in plenary | |
| Drafts(wo)man | Jaromír Kohliček 10.10.2005 |
| Previous drafts(wo)man | |
| Discussed in committee | 24.01.2006 21.02.2006 |
| Date adopted | 22.02.2006 |
| Result of final vote | +: 37 –: 0 0: 1 |
| Substitute(s) present for the final vote | Zsolt László Becsey, Den Dover, Zita Gurmai, Anne E. Jensen, Jelko Kacin, Zita Pleštinská, Rosa Miguélez Ramos, Vladimir Remek, Hannu Takkula |
| Substitute(s) under Rule 178(2) present for the final vote | Anna Hedh |
| Comments (available in one language only) | |
23.2.2006

OPINION OF THE COMMITTEE ON AGRICULTURE AND RURAL DEVELOPMENT

for the Committee on Industry, Research and Energy


Draftsman: Markus Pieper

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 6th framework programme (2002 - 2006) agricultural research was limited almost exclusively to food quality and safety. In the 7th 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 7th framework programme compared to the previous
programming period.

In order to implement the 7th 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 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:

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendments by Parliament</th>
</tr>
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</table>

Amendment 1
Annex I, Themes, 2. Food, agriculture and biotechnology,
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 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.

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, environmental and economic challenges: the growing demand for safer, healthier and higher quality food, taking into account the multifunctional role of agriculture, animal welfare and rural 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 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.

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

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 innovatory experiences in the strategic component of rural development are crucial.
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. 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 innovatory 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 coordination of national research programmes will be pursued wherever appropriate, in

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
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.

**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 research into and further development of agricultural production systems, 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. 

Section Title

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

– 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 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
- 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.

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 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.

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.

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 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.

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

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 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**

<table>
<thead>
<tr>
<th>Title</th>
<th>Proposal for a Council decision on the Specific Programme “Cooperation” implementing the Seventh Framework Programme (2007-2013) of the European Community for research, technological development and demonstration activities</th>
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<td>References</td>
<td>COM(2005/0040 - C6-0381/2005 - 2005/0185(CNS))</td>
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<td>Committee responsible</td>
<td>ITRE</td>
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<tr>
<td>Opinion by</td>
<td>AGRI</td>
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<tr>
<td>Date announced in plenary</td>
<td>17.11.2005</td>
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<td>Enhanced cooperation – date announced in plenary</td>
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<tr>
<td>Drafts(wo)man</td>
<td>Markus Pieper</td>
</tr>
<tr>
<td>Date appointed</td>
<td>23.11.2005</td>
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<td>Previous drafts(wo)man</td>
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<tr>
<td>Discussed in committee</td>
<td>25.1.2006 21.2.2006</td>
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<tr>
<td>Date adopted</td>
<td>21.2.2006</td>
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<td>Result of final vote</td>
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<td>Substitute(s) present for the final vote</td>
<td>Bernadette Bourzai, Markus Pieper, Zdzisław Zbigniew Podkański</td>
</tr>
<tr>
<td>Substitute(s) under Rule 178(2) present for the final vote</td>
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<tr>
<td>Comments (available in one language only)</td>
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</table>
21.3.2006

OPINION OF THE COMMITTEE ON CULTURE AND EDUCATION

for the Committee on Industry, Research and Energy


Draftsman: Giovanni Berlinguer

SHORT JUSTIFICATION

1. The specific programme is designed to promote and support the excellence of European research through closer cooperation between research centres, universities, public bodies and industry, including SMEs. Cooperation and the exchange of information and knowledge are vital in order to ensure that research enjoys the creativity, freedom and development that it needs to make discoveries. It is important that those projects which envisage cooperation between industry and universities or research centres should not be too emphatically profit oriented. Universities must be guaranteed autonomy in identifying the priorities for research; such autonomy must not be subordinated to the demands of industry.

2. Basic research, which is often neglected by firms – but without which there can be no applied research – must be encouraged, in part through partnerships with industry and SMEs, and must be accessible and available to the public at large.

3. While acknowledging the fact that patents can make investment in research possible, and that intellectual property rights can help to fund research, it is absolutely essential to avoid monopolies in certain sectors, restrict catch-all patents, and curtail the period during which a discovery is under patent. There is also a need for Europe to commit itself internationally to setting limits on what is patentable (living organisms, DNA and the human genome). With regard to pharmacology, patents and prices should not stand in the way of fairer access to treatment and, in the case of serious epidemics it should be possible to suspend them, as has already been decided for diseases such as Aids, on the basis of WTO agreements.

4. Research funded under the Seventh Framework Programme and research carried out in
universities or with public funding should be accessible and be disseminated, and should entail the sharing of knowledge and information. European research should pursue the goals of enhancing knowledge and the common good.

5. Where the projects for international cooperation envisaged by the Seventh Framework Programme are concerned, the added value resulting from the exchange of experiences and reciprocal knowledge and the launching and running of joint research projects should be the principal criteria underpinning scientific cooperation.

6. The new information and communication technologies can be an extraordinary tool for fostering the right to communicate, to participate and to access and receive information. The ICT projects under the Seventh Framework Programme should help to reduce the digital divide associated with different opportunities for access – differing between and within countries, and between North and South – and with the technologies and the knowledge which enables them to be used.
# AMENDMENTS

The Committee on Culture and Education calls on the Committee on Industry, Research and Energy, as the committee responsible, to incorporate the following amendments into its report:

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendments by Parliament</th>
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<tbody>
<tr>
<td>Amendment 1</td>
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<td>Recital 4</td>
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<td>(4) The Framework Programme should complement the activities carried out in the Member States as well as other Community actions that are necessary for the overall strategic effort for the implementation of the Lisbon objectives, alongside in particular with those on structural funds, agriculture, education, training, competitiveness and innovation, industry, health, consumer protection, employment, energy, transport and environment.</td>
<td>(4) The Framework Programme should complement the activities carried out in the Member States as well as other Community actions that are necessary for the overall strategic effort for the implementation of the Lisbon objectives, alongside in particular of those on structural funds, agriculture, education, training, <em>culture</em>, competitiveness and innovation, industry, health, consumer protection, employment, energy, transport and environment.</td>
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<td>Amendment 2</td>
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<td>Recital 8</td>
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<td>(8) As provided for under Article 170 of the Treaty, the Community has concluded a number of international agreements in the field of research and efforts should be made to strengthen international research cooperation with a view to further integrating the Community into the worldwide research community. Therefore, this Specific Programme should be open to the participation of countries having concluded agreements to this effect and should <em>be also</em> open on the project level, and on the basis of mutual benefit, to the participation of entities from third countries and of international organisations for scientific</td>
<td>(8) As provided for under Article 170 of the Treaty, the Community has concluded a number of international agreements in the field of research and efforts should be made to strengthen international research cooperation with a view to further integrating the Community into the worldwide research community. Therefore, this Specific Programme should be open to the participation of countries having concluded agreements to this effect, <em>should likewise strengthen cooperation with countries which have not concluded agreements to this effect</em>, and should <em>also be</em> open on the project level, and on the basis of the</td>
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1 Not yet published in OJ.

PE 368.072v01-00

EN
cooperation. *common good and* mutual benefit, to the participation of entities from third countries and of international organisations for scientific cooperation.

Amendment 3
Recital 9

(9) Research activities carried out within this programme should respect fundamental ethical principles, including those which are reflected in the Charter of Fundamental Rights of the European Union, and confirm the civic and humanist value of research, with due regard for ethical and cultural diversity.

**Justification**

*More than ever, research is experiencing tension – sometimes fruitful and sometimes destructive – between its impressive advances and society and its economic, political and cultural structure. We should take time to consider the issues raised by ethics and by the many cultural points of view in the world of research.*

Amendment 4
Recital 10

*Does not apply to English version.*

Amendment 5
Recital 11 a (new)

*(11a) To simplify calls for proposals and reduce costs, the Commission should set up a database as a prerequisite for notifying participants in calls for proposals.*

Or. de

**Justification**

*Easier access to the programme for European research institutions and interested parties in*
a call for proposals.

Amendment 6
Article 7, paragraph 3 a (new)

3a. The Commission shall ensure that the research results are evaluated and shall report on their contribution to a dynamic, knowledge-based society in Europe.

Or. de

Justification
The Commission has to show that the programme's goal of a dynamic, knowledge-based society in Europe has actually been achieved.

Amendment 7
Article 8, paragraph 5

5. The Commission shall regularly inform the Committee of the overall progress of the implementation of the Specific Programme, and shall provide it with information about all RTD actions funded under this programme.

Or. de

Justification
The Commission is presenting provisions for a comitology procedure in the context of cooperation with the Council here. It is appropriate to inform the other arm of the budgetary authority, as well, of the implementation of the programme.

Amendment 8
Article 8, paragraph 5 a (new)

5a. The Commission shall submit this Decision and a report on the implementation of the Specific Programme to the competent bodies for review in sufficient time to ensure that the procedure for modifying this Decision can be completed by the end of 2010.
Justification

The review of the decision during its projected term (mid-term review) makes it possible, in the context of an evaluation and, possibly, corrective action, to react to problems with implementation or to other developments. Owing to the running-in phase of the programme which exists in practice, the review takes place a year after the mid-point of the period covered by the programme. This amendment is intended to make the evaluation more reliable.

Amendment 9

Annex I, Scientific and technological objectives, broad lines of the themes and activities, paragraph 2

The overarching aim is to contribute to sustainable development within the context of promoting research at the highest level of excellence. The primary purpose of research should be to increase knowledge. The overarching aim is to contribute to an increase in knowledge and also to sustainable development within the context of promoting research at the highest level of excellence. Research is a fundamental instrument for encouraging social inclusion, active citizenship and participation, economic growth, competitiveness, health and quality of life.

Justification

Research and science are more and more frequently intertwined with competitiveness, the economy or inputs, and the benefits for industry. Scientific research must be understood primarily as an activity to increase knowledge.

Amendment 10

Annex I, Scientific and technological objectives, broad lines of the themes and activities, paragraph 2 a (new)

In the case of university-industry partnerships, the Commission will undertake to disseminate the results of basic and applied research, where these are of public interest and directed to the common good.

Justification

To fulfil the undertakings of the Lisbon Agenda, the priority for European research should be
to spread and democratise knowledge. In projects funded under the Seventh Framework Programme which entail cooperation between industry and universities, it should be guaranteed both that there will be research on subjects which do not have direct industrial spin-offs and that research results will be accessible to and usable by the public at large, especially when such results make a contribution to the improvement and development of society.

Amendment 11
Annex I, Scientific and technological objectives, broad lines of the themes and activities, Dissemination, knowledge transfer and broader engagement, indent 4 a (new)

- Specific learning initiatives organised in cooperation with existing networks of stakeholders (public administrations, users, industry, civil society) aimed at collecting and reporting positive experiences as well as 'failures' as a natural part of project implementation from which it is crucial to learn;

Amendment 12
Annex I, Scientific and technological objectives, broad lines of the themes and activities, International co-operation, paragraph 1, introductory phrase

International cooperation actions will support an international Science and Technology policy that has two interdependent objectives:

International cooperation actions will support an international science and technology policy that has three interdependent objectives:

Amendment 13
Annex I, Scientific and technological objectives, broad lines of the themes and activities, International co-operation, paragraph 1, indent 1

- To support and promote European competitiveness through strategic research partnerships with third countries including highly industrialised and emerging economies in science and technology by engaging the best third country scientists to work in and with Europe.

- to support and promote research projects of universal value through strategic research partnerships in science and technology with third countries including highly industrialised and emerging economies, supporting the mobility of third country scientists to ensure that they have the best conditions enabling them to work in and with Europe and facilitating their subsequent return home;
Justification

We need to encourage the European research system to be open to foreign researchers, creating the optimum conditions to enable them, once they have returned to their countries of origin, to continue to cooperate with Europe and to put the results of joint research to good use. In addition, in projects involving international cooperation, whether between countries or between mixed research teams, priorities will have to be taken into account in a fair and balanced manner.

Amendment 14
Annex I, Scientific and technological objectives, broad lines of the themes and activities, International co-operation, paragraph 1, indent 1 a (new)

- to ensure that the results and benefits of research of universal value are accessible and usable on a broad scale;

Amendment 15
Annex I, Scientific and technological objectives, broad lines of the themes and activities, International co-operation, paragraph 1, indent 2

- To address specific problems that third countries face or that have a global character, on the basis of mutual interest and mutual benefit.
- to address specific problems that third countries face or that have a global character, enhancing the concept of worldwide cooperation and the sharing of knowledge and information.

Amendment 16
Annex I, Scientific and technological objectives, broad lines of the themes and activities, International co-operation, paragraph 2

The international scientific cooperation policy of the EU will stress and develop cooperation to generate, share and use knowledge through equitable research partnerships taking into account the country, regional and socio-economic context and knowledge base of partner countries. The strategic approach is to enhance EU competitiveness and global sustainable development through such partnerships

The international scientific cooperation policy of the EU will stress and develop cooperation to generate, share and use knowledge through equitable research partnerships taking into account the international, country, regional and socio-economic context, knowledge base and European priorities of partner countries. The strategic approach is to enhance EU competitiveness and global sustainable
between the EU and third countries at bilateral, regional and global levels based on mutual interest and benefit. To this end the EU’s role as a global player should be also promoted through multilateral international research programmes. The international cooperation actions supported will be connected to mainstream policy issues in order to support fulfilling international commitments of the EU and contribute to sharing European values, competitiveness, socio-economic progress, environmental protection and welfare under the umbrella of global sustainable development. development through such partnerships between the EU and third countries at bilateral, regional and global levels based on the public and collective interest. To this end the EU’s role as a global player should be also promoted through multilateral international research programmes. The international cooperation actions supported will be connected to mainstream policy issues in order to support fulfilling international commitments of the EU and contribute to sharing results so as to enhance competitiveness, socio-economic progress, environmental protection and welfare under the umbrella of global sustainable development.

Amendment 17
Annex I, Themes, point 1, Approach, paragraph 4 a (new)
Prevention and information with regard to all aspects of public health should not be a matter only for individual Ministers of Health, research centres and hospitals; synergies should be created with the education sector for targeted health education and disease prevention activities (courses, screenings, leaflets).

Amendment 18
Annex I, Themes, point 3, Objective

Improve the competitiveness of European industry and enable Europe to master and shape the future developments of Information and Communication Technologies (ICT) so that the demands of its society and economy are met. Activities will strengthen Europe’s scientific and technology base and ensure its global leadership in ICT, help drive and stimulate innovation through ICT use and ensure that ICT progress is rapidly transformed into benefits for Europe’s citizens, businesses,

Improve the competitiveness of the European information and communication technologies (ICT) sector and enable Europe to create an open and inclusive information society which respects human rights, freedom of expression and cultural and linguistic diversity, as adopted at the Tunis International Conference on ICT, and which also helps to resolve the major inequalities with regard to ICT developments between and within countries. Activities will strengthen Europe’s scientific
industry and governments. and technology base and ensure its global leadership in ICT, help drive and stimulate innovation and development through ICT use and ensure that ICT progress is rapidly transformed into benefits for Europe’s citizens, universities, research centres, businesses, industry and governments and for those of the emerging developing countries with which there are already networked cooperation projects (EUMEDIS and EUMEDCONTACT for the Mediterranean, @LIS for Latin America and ASI@ICT for Asia).

Justification

The new information and communication technologies (ICT) are playing an increasingly predominant role in contemporary society. They have an impact on governance, education, information, industrial development, the environment and the daily lives of billions of people. The European Union must help to create an information society in which technology, infrastructure and services are tools to serve the public. Making the information society open and inclusive also means resolving the huge gap between regions (rural areas), social groups (disadvantaged groups) and the North and South.

Amendment 19
Annex I, Themes, point 3, Introduction, paragraph 1

Information and communication technologies (ICT) play a unique, proven role in fostering innovation, creativity and competitiveness of all industry and service sectors. They are essential for addressing key societal challenges and modernising public services and they underpin progress in all science and technology fields. Europe must therefore master and shape the future developments of ICT and ensure that ICT-based services and products are taken up and used to deliver the maximum possible benefits for citizens and businesses.

Information and communication technologies (ICT) play a unique, proven role in fostering innovation, creativity and competitiveness of all industry and service sectors. ICT can also play an important part in disseminating know-how, knowledge and research results and ensuring access thereto. They are essential for addressing key societal challenges and modernising public services and they underpin progress in all science and technology fields. They help to improve and diversify access to information and should foster active citizen participation. Europe must therefore encourage the future developments of ICT in the direction of openness and inclusivity and ensure that ICT-based services and products are taken up and used to deliver the maximum
possible benefits for citizens and businesses.

Amendment 20
Annex I, Themes, point 3, Applications Research, ICT meeting societal challenges, indent 2

– for governments: use of ICT in an interdisciplinary approach in public administrations combined with organisational change and new skills in order to deliver innovative, citizen-centric services for all; advanced ICT based research and solutions to improve democratic and participatory processes and the performance and quality of public sector services, interaction with and between administrations and governments, and support legislative and policy development processes in all stages of democracy;

– for governments: use of ICT in an interdisciplinary approach in public administrations combined with organisational change, re-engineering processes and new skills in order to deliver innovative, citizen-centric services for all; advanced ICT-based research and solutions to improve democratic and participatory processes and the performance and quality of public sector services, interaction with and between administrations and governments, and support legislative and policy development processes in all stages of democracy;

Amendment 21
Annex I, Themes, point 3, Applications Research, ICT for content, creativity and personal development, indent 2 a (new)

– protection, conservation and enhancement of cultural heritage, including human habitat: technologies for the environmentally sound and sustainable management of the human environment, including the built environment, urban areas, landscape, as well as for the protection, conservation and optimal use and integration of cultural heritage, including environmental impact assessment, models and tools for risk evaluation, advanced and non-destructive techniques for damage diagnosis, new products and methodologies for restoration, mitigation and adaptation strategies for the sustainable management of both movable and immovable cultural assets;
### PROCEDURE

| **Title** | Specific Programme "Cooperation" implementing the Seventh Framework Programme (2007-2013) of the European Community for research, technological development and demonstration activities |
| **Committee responsible** | ITRE |
| **Opinion by** | CULT |
| **Date announced in plenary** | 17.11.2005 |
| **Enhanced cooperation – date announced in plenary** |  |
| **Drafts(wo)man** | Giovanni Berlinguer |
| **Date appointed** | 7.10.2005 |
| **Previous drafts(wo)man** |  |
| **Discussed in committee** | 23.1.2006 23.3.2006 0.0.0000 |
| **Date adopted** | 21.3.2006 |
| **Result of final vote** | +: 25  
-: 1  
0: 0 |
| **Substitute(s) present for the final vote** | Gyula Hegyi, Mario Mauro, Jaroslav Zvěřina |
| **Substitute(s) under Rule 178(2) present for the final vote** |  |
| **Comments (available in one language only)** | ... |
## Title
Proposal for a Council decision on the Specific Programme "Cooperation" implementing the Seventh Framework Programme (2007-2013) of the European Community for research, technological development and demonstration activities

## References

## Date of consulting Parliament
14.11.2005

## Committee responsible

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## Not delivering opinion(s)

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<th>Date of decision</th>
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<td>25.10.2005</td>
</tr>
<tr>
<td>EMPL</td>
<td>5.10.2005</td>
</tr>
<tr>
<td>ENVI</td>
<td>29.11.2005</td>
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## Enhanced cooperation

<table>
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<th>Rapporteur(s)</th>
<th>Date appointed</th>
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</thead>
<tbody>
<tr>
<td>Teresa Riera Madurell</td>
<td>5.10.2005</td>
</tr>
</tbody>
</table>

## Previous rapporteur(s)

## Simplified procedure – date of decision

<table>
<thead>
<tr>
<th>Date of decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.1.2006</td>
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<tr>
<td>21.2.2006</td>
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<td>4.5.2006</td>
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## Date adopted
10.10.2006

## Result of final vote

| +: | 43 |
| -: | 1  |
| 0: | 0  |

## Members present for the final vote
Šarūnas Birutis, Jerzy Buzek, Joan Calabuig Rull, Pilar del Castillo Vera, Giles Chichester, Den Dover, Adam Gierek, Norbert Glante, András Gyürk, Fiona Hall, David Hammerstein Mintz, Rebecca Harms, Ján Hudacký, Romana Jordan Cizelj, Werner Langen, Anne Laperrouze, Vincenzo Lavarra, Pia Elda Locatelli, Nils Lundgren, Eugenijus Maldeikis, Eluned Morgan, Reino Paasilinna, Miloslav Ransdorf, Herbert Reul, Teresa Riera Madurell, Mechtild Rothe, Paul Rübig, Britta Thomsen, Patrizia Toia, Catherine Trautmann, Claude Turmes, Nikolaos Vakalis, Alejo Vidal-Quadras Roca, Dominique Vlasto

## Substitute(s) present for the final vote
Alexander Alvaro, Daniel Caspary, Jan Christian Ehler, Cristina Gutiérrez-Cortines, Lambert van Nistelrooij, Francisca Pleguezuelos Aguilar, Vittorio Prodi, Esko Seppänen

## Substitute(s) under Rule 178(2) present
Albert Deß, Rosa Miguélez Ramos
<table>
<thead>
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