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REPORT

on the proposal for a decision of the European Parliament and of the Council concerning the multiannual framework programme 2002-2006 of the European Community for research, technological development and demonstration activities aimed at contributing towards the creation of the European Research Area

(COM(2001) 94 – C5-0087/2001 – 2001/0053(COD))

Part 3: Opinions of other committees

(see also part 4)

Committee on Industry, External Trade, Research and Energy

Rapporteur: Gérard Caudron

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18 September 2001

OPINION OF THE COMMITTEE ON BUDGETS

for the Committee on Industry, External Trade, Research and Energy

on the proposal for a Decision of the European Parliament and of the Council concerning the multiannual framework programme 2002-2006 of the European Community for research, technological development and demonstration activities aimed at contributing towards the creation of the European Research Area,

and the proposal for a Council decision concerning the multiannual framework programme 2002-2006 of the European Atomic Energy Community (EURATOM) for research and training activities aimed at contributing towards the creation of the European Research Area
(COM(2001) 94 – C5-0087/2001 – 2001/0053(COD))
(COM(2001) 94 – C5-0171/2001 – 2001/0054(CNS))

Draftsman: Heide Rühle

PROCEDURE

The Committee on Budgets appointed Heide Rühle draftsman at its meeting of 22 March 2001.

It considered the draft opinion at its meeting of 13 September 2001.

At the last meeting it adopted the following conclusions unanimously with 2 abstentions.

The following were present for the vote: Terence Wynn, chairman; Reimer Böge, vice-chairman; Heide Rühle, draftsman; Gordon J. Adam (for Bárbara Dührkop Dührkop, pursuant to Rule 153(2)), Ioannis Averoff, Jean-Louis Boursanges, Kathalijne Maria Buitenweg, Paulo Casaca, Carlos Costa Neves, Den Dover, James E.M. Elles, Göran Färm, Markus Ferber, Salvador Garriga Polledo, Neena Gill, Catherine Guy-Quint, John Joseph McCartin, Jan Mulder, Juan Andrés Naranjo Escobar, Giovanni Pittella, Elly Plooij-van Gorsel (for Anne Elisabet Jensen), Bartho Pronk (for Armin Laschet), Encarnación Redondo Jiménez (for Alain Madelin), Esko Olavi Seppänen (for Chantal Cauquil), Ioannis Soulidakis (for Joan Colom i Naval), Per Stenmarck, Francesco Turchi, Kyösti Tapio Virrankoski and Ralf Walter.

SHORT JUSTIFICATION

1. Background

The Commission's proposals on the 6th framework programme on research and development (2002-2006) are a result of a long debate, which started in January 2000 when the Commission adopted its Communication *Towards a European Research Area*.¹ The Communication led to a thorough exchange of views between the different institutions concerned. After receiving the resolution from the European Parliament and the opinions of the Economic and Social Committee and the Committee of the Regions, the Commission presented two legislative proposals in March 2001, one on the Community framework programme and another one on the research activities falling under the EURATOM Treaty.²

According to the proposals, the 6th framework programme would comprise of three main blocks of activities to be decided under the codecision procedure: integrating research, structuring the European Research Area, and strengthening the foundations of the European Research Area.

In addition, the framework programme would contain two blocks of activities falling under the EURATOM Treaty, where the Parliament is only consulted and the Council has the final say. These specific programmes would cover "indirect" activities on nuclear fission and fusion, as well as the JRC's activities in the field of nuclear energy.

Finally, the Commission proposes eight key research priorities:

1. Genomics and biotechnology for health;
2. Information society technologies;
3. Nanotechnologies, intelligent materials and new production processes;
4. Aeronautics and space;
5. Food safety and health risks;
6. Sustainable development and global change;
7. Citizens and governance in the European knowledge-based society; and
8. Anticipating the EU's scientific and technological needs including JRC activities.

In short, the Commission introduces three new instruments, which would be applied to all priority areas: networks of excellence, integrated projects, as well as programmes implemented according to Article 169 of the EC Treaty. The last instrument provides the Community the possibility to participate in research projects undertaken jointly by several Member States in order to anticipate emerging needs, and react rapidly to new scientific and technological developments. These projects would fall under the codecision procedure, and they would be cofinanced from national budgets.

The Commission justifies the relatively small number of priority areas by the need to concentrate on a few, well-defined areas in order to avoid the dispersion of financial and human resources.

Projects would be also open to candidate countries and third countries depending on the type of cooperation agreements that exist between them and the Community.

One further difference concerns management decentralisation. The Commission intends to reduce the ceiling of administrative expenditure from the current level of 7.0% to 5.5% of overall funding. After the evaluation and selection of new projects, the Commission would be involved only in the assessment and monitoring of Community financed projects. For instance, payments would be issued in tranches following annual scientific and financial assessment. At

¹ COM(00) 6 of 18.1.2000.

² COM(01) 94 of 1.3.2001.

the moment, payments are issued according to a complex procedure, which is based on nine different standard models of contracts.

2. General assessment

The Commission's proposals have caused mixed reactions in the scientific community. Many seem to welcome the Commission's efforts to revise its administrative and operational procedures. At a public hearing organised by the Committee on Budgets in June 2001,¹ representatives of the public and private sector gave their support to the proposal to simplify and streamline administrative procedures, which until now have been far too cumbersome and complicated. According to the counterparts operating with the framework programme, there is an urgent need to reduce the time required from the submission of the proposal to the launching of the project from one year to six months. However, some parts of the proposal, such as the rules of participation, need further clarification. In addition, some parts of the proposals seem to diverge too much from the current procedures. Counterparts in the Member States cannot be expected to learn new procedures every five years.

The main problem relates to the architecture of the framework programme, and more specifically to its new instruments and thematic priorities. According to the Commission, the new emphasis on large integrated projects should improve the cost-effectiveness of Community financed RTD activities. In some cases, such as the CRAFT programme aimed for small businesses, projects have cost an average of €60,000 per year, whereby it has been difficult to get a reasonable outturn of the projects.

The rapporteur fears, however, that the Commission's new approach could lead to another extreme if preference is given to large-scale projects. Smaller projects are often more agile and likely to produce market-oriented results. Therefore, small and medium-sized projects should remain an integral part of the framework programme and should not be marginalised from Community funding.

Similarly, it can be questioned whether the reduction of the number of thematic areas and their concentration under one heading (integrating research) is really feasible for the transparency and accountability of these projects. In order to ensure the monitoring of these activities, the rapporteur suggests that each specific programme should have its own budget line. This would simplify the follow-up of the financial implementation by the budgetary authority and guarantee a better flow of information on the activities financed under the framework programme.

In addition, the problem relating to the accountability of the eighth thematic area (Anticipating the EU's scientific and technological needs) remains to be solved. Many counterparts have expressed their concern that the complexity of decision-making and mixed sources of funding can cause further delays, which may put into question the use of this instrument.

The rapporteur considers that the 6th framework programme should put increased emphasis on ethical principles, such as food safety, in order to avoid the eruption of new BSE and FMD cases. The framework programme should increase intra-European cooperation in this field by providing complementary studies to the new Food Safety Authority.

The rapporteur also underlines the importance of Community research in renewable sources of energy (wind, solar, biomass) and the development of energy efficient technologies, such as hydrogen and fuel cells.

The Community is extremely dependent on external fossil fuels. It currently imports some 50% of its requirements, a figure that will rise to 70% in 2030 with an even greater dependence on oil and gas if current trends persist. Needless to say, its dependency on external energy sources

¹ Public hearing on Quality of Expenditure: the cases of Structural Funds and Research, organised in Brussels on 19 June 2001.

makes its economy and society relatively vulnerable to delivery shortages and unforeseen crises in third countries.

Nevertheless, the Community has substantial reserves of coal. After enlargement, the Union's coal production will more than double. So far, however, the interest to develop coal-based technologies has been limited as European coal production is highly uncompetitive compared to imported coal.

The development of fuel cell technology could revive the coal industry while changing the way coal is being used. At a wider scale, it could provide an important instrument to slow down global warming.

Consequently, the rapporteur proposes to increase appropriations for the priority areas entitled Sustainable development and global change, and to reduce funding in other programmes which may not be as crucial to the Community's interests.

3. Financial impact

The Commission is proposing a budget of EUR 17.5 billion for the 6th framework programme. This amount can be further broken down to EUR 16.27 billion for RTD activities carried out by the Community and EUR 1.23 billion carried out by EURATOM (see breakdown of expenditure in annex 1). The proposed expenditure represents an increase of 17% compared to the current research framework programme. However, assuming that other activities under heading 3 are maintained at the current level, the share of RTD costs would remain virtually unchanged if compared to the current level (see table below). If the proposals were approved as such, they would leave a margin of approximately €1.4 billion under the ceiling of heading 3.

Margin available under heading 3

(in € million, adjusted to current prices with estimated inflation of 2% per year)

	2001	2002 **	2003	2004	2005	2006	Total 2003-2006
FP ceiling for heading 3	6.272	6.558	6.810	7.065	7.325	7.601	
Other policies heading 3	2.312	2.435	2.406	2.454	2.503	2.553	
RTD costs	3.920	4.055	4.055	4.310	4.500	4.635	17.500
Total costs in heading 3 *	6.232	6.490	6.461	6.764	7.003	7.188	
Margin under heading 3	40	68	349	301	322	413	1.385
RTD costs vs. FP ceiling	62,50%	61,83%	59,55%	61,01%	61,44%	60,98%	

* Assuming that FP6 is adopted as proposed by the Commission and other activities under heading 3 are maintained at the current level without any increases.

** As proposed in PDB 2002.

The rapporteur considers that the proposed level of research appropriations is justified if the Community ever intends to achieve the strategic goal set at the Lisbon European Council: “to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion”.¹

The rapporteur reminds that average expenditure on research, expressed as percentage of Europe’s GDP, is currently significantly lower than either in the USA or Japan: the EU now devotes only 1.9% of its GDP to research, as against 2.7% in the United States and 3.1% in Japan. In terms of human resources, the difference is even more striking: researchers account for 2.4‰ of the workforce in Europe, compared to 5.9‰ in the United States and 6.3‰ in Japan.²

An increase in RTD appropriations would seem justified also considering the future needs of enlargement. Additional funds would be necessary to facilitate the participation of candidate countries in Community research. Central and Eastern European countries need increased support if they are to be integrated into Community-financed research activities. Consequently, the Community should not wait until enlargement when the financial appropriations of FP6 will be revised. It should strengthen the supply of information on potential RTD opportunities to candidate countries and revise the expenditure of some other thematic priorities.

On the other hand, it is clear that future RTD appropriations should be consistent with the requirements of the current financial perspective. The 6th framework programme should not be financed at the expense of other Community activities in heading 3. The rapporteur considers that the Commission should present a programming report on all the activities to be financed under heading 3 during 2002-2006 before the budgetary authority can take a final decision on the funding of the new framework programme.

¹ Lisbon European Council conclusions of 23-24 March 2000.

² Five-year assessment of the European Union research and technological development programmes, 1995-1999. July 2000.

AMENDMENTS

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

Proposal for a Decision of the European Parliament and of the Council concerning the multiannual framework programme 2002-2006 of the European Community for research, technological development and demonstration activities aimed at contributing towards the creation of the European Research Area (COM(2001) 94 – C5-0087/2001 – 2001/0053 (COD))

AMENDMENTS TO THE DRAFT LEGISLATIVE TEXT

Text proposed by the Commission¹

Amendments by Parliament

Amendment 1

Recital 14 (new)

Whereas the multiannual framework programme should be compatible with the current ceiling of heading 3 without restricting other policies.

Justification:

The amount proposed for the multiannual programme should be compatible with the ceiling under the financial perspective. If, in the course of the adoption of the decision, other amounts were to be proposed by the legislative authority, the budgetary authority would need to be consulted again. In this case, the Committee on Budgets would consider the impact on the ceiling under the current financial perspective. Similarly, if during the multiannual framework programme the evolution of the ceiling of the financial perspective were to change dramatically, the budgetary authority would have to reconsider the financial envelope.

Amendment 2

Article 1 (2)

2. The framework programme 2002-2006 shall comprise all Community activities envisaged in Article 164 of the Treaty.

2. The framework programme 2002-2006 shall comprise all Community activities envisaged in Article 164 of the Treaty, ***including basic research.***

Justification:

The rapporteur considers that basic research should be strengthened in the next multiannual framework programme. This would also be in line with the four main activities stated in Article 164 of the EC Treaty.

¹ OJ C 180E, 26.6.2001, p. 156.

Amendment 3

Article 2 (1)

1. The maximum overall amount for Community financial participation in the entire framework programme 2002-2006 shall be EUR 16.270 billion: the proportion assigned to each of the activities is fixed in Annex II.

1. The maximum overall amount for Community financial participation in the entire framework programme 2002-2006 shall be EUR 16.270 billion: the proportion assigned to each of the activities is fixed in Annex II.

The Commission shall present a programming report on all the activities to be financed under heading 3 each year so as to ensure that the multiannual framework programme is compatible with the ceiling under heading 3 of the financial perspective. This report shall be made available every year by 30 June.

Justification:

The budgetary authority should have a clear idea of the financial impact of the multiannual framework programme on other activities in heading 3. Consequently, the Commission should present a programming report on all activities that are to be financed under heading 3 each year.

Amendment 4

Article 2 (2)

2. The detailed rules for financial participation by the Community shall be governed by the Financial Regulation applicable to the General Budget of the European Communities, supplemented by Annex III.

2. The detailed rules for financial participation by the Community shall be governed by the Financial Regulation applicable to the General Budget of the European Communities, supplemented by Annex III.

Each specific programme shall have its own budget line under heading 3 of the general budget so as to ensure the follow-up of the financial implementation and guarantee a better flow of information between the Commission and the budgetary authority on the activities financed under the framework programme.

Justification:

The rapporteur considers that the reduction of thematic priorities and their concentration under one heading may cause a risk to the transparency and accountability of these projects. *To ensure the monitoring of these activities, it is necessary to set up a separate budget line for each*

specific programme.

Amendment 5

Article 3

All the research activities carried out under the framework programme 2002-2006 must be carried out in compliance with fundamental ethical principles.

All the research activities carried out under the framework programme 2002-2006 must be carried out in compliance with fundamental ethical principles *and gender equality*.

The multiannual framework programme shall give major priority to research on renewable energy sources (wind, solar, biomass) and the development of energy efficient technologies, such as hydrogen and fuel cells.

The multiannual framework programme shall provide complementary studies to the Food Safety Authority on animal welfare and food safety.

The multiannual framework programme shall also devote attention to the development of approaches and technologies which accord with the changing value and functions which society assigns to agriculture and food production, and to research into such animal diseases as foot-and-mouth disease and swine fever and particularly the development of market vaccines.

The multiannual framework programme shall maintain its emphasis on SMEs, which shall receive at least 15% of its overall appropriations. These funds shall be used to finance small and medium-sized projects, which represent an integral part of the framework programme.

The multiannual framework programme shall provide financial support to cooperation with Central and Eastern European researchers and supply information to the applicant countries on potential research opportunities.

Justification:

The rapporteur considers that the Commission's proposal should be complemented with a further emphasis on gender equality, food safety, SMEs, cooperation with candidate countries, as well as research on renewable sources of energy and the development of energy efficient technologies.

Amendment 6

Article 4

Progress with implementing the framework programme 2002-2006, and in particular progress towards achieving its objectives and meeting its priorities, shall be presented in detail in the report to be published by the Commission each year pursuant to Article 173 of the Treaty.

Progress with implementing the framework programme 2002-2006, and in particular progress towards achieving its objectives and meeting its priorities, shall be presented in detail in the report to be published by the Commission each year pursuant to Article 173 of the Treaty.

The Commission shall present a report on the financial implementation of the specific programmes every twelve months. In addition, it 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:

To improve the financial monitoring of Community financed research activities, the rapporteur considers that the Commission should inform the budgetary authority on the implementation of 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.

Amendment 7

Annex III point 1.1.3, paragraph 4 (new)

Participation in national programmes carried out jointly

Insists that the application of article 169 should be non-discriminatory as between larger and smaller Member States and that the specific proposals for actions of this category be inserted in the framework programme.

Justification

Cooperation between some Member States must not lead to exclusion of others. For the application of Article 169, codecision is required. Therefore all projects should be inserted in

AMENDMENTS TO THE DRAFT LEGISLATIVE RESOLUTION

Amendment 8

[The European Parliament,]

Considers that the financial envelope of the proposal should be compatible with the ceiling under heading 3 of the current Financial Perspective without restricting other policies.

Justification:

The amount proposed for the multiannual programme should be compatible with the ceiling under the financial perspective. If, in the course of the adoption of the decision, other amounts were to be proposed by the legislative authority, the budgetary authority would need to be consulted again. In this case, the Committee on Budgets would consider the impact on the ceiling under the current financial perspective. Similarly, if during the multiannual framework programme the evolution of the ceiling of the financial perspective were to change dramatically, the budgetary authority would have to reconsider the financial envelope.

Amendment 9

[The European Parliament,]

Considers that the financing of the proposal is the minimum required to achieve the objectives outlined in the sixth framework proposal. An urgent review by 15 November shall be undertaken to ensure that the levels proposed match the objectives of this framework programme.

Justification

The amount proposed for the multiannual framework programme is significantly below the other similarly advanced economies especially in the light of enlargement, which will add greater pressure on these sources. An urgent review should be undertaken to ensure that the levels proposed match the objectives of this framework programme.

AMENDMENTS

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

Proposal for a Council decision concerning the multiannual framework programme 2002-2006 of the European Atomic Energy Community (EURATOM) for research and training activities aimed at contributing towards the creation of the European Research Area (COM(2001) 94 – C5-0171/2001 – 2001/0054 (CNS))

AMENDMENTS TO THE DRAFT LEGISLATIVE TEXT

Amendment 10

Recital 14 (new)

Whereas the multiannual framework programme should be compatible with the current ceiling of heading 3 without restricting other policies.

Justification:

The amount proposed for the multiannual programme should be compatible with the ceiling under the financial perspective. If, in the course of the adoption of the decision, other amounts were to be proposed by the legislative authority, the budgetary authority would need to be consulted again. In this case, the Committee on Budgets would consider the impact on the ceiling under the current financial perspective. Similarly, if during the multiannual framework programme the evolution of the ceiling of the financial perspective were to change dramatically, the budgetary authority would have to reconsider the financial envelope.

Amendment 11

Article 2 (1)

1. The financial reference amount for the implementation of this framework programme for the period 2002-2006 shall be EUR 1 230 million, of which EUR 150 million for the treatment and storage of waste, EUR 700 million for controlled thermonuclear fusion, EUR 50 million for other Euratom activities, and EUR 330 million for the Joint Research Centre's Euratom activities.

1. The financial reference amount for the implementation of this framework programme for the period 2002-2006 shall be EUR 1 230 million, of which EUR 150 million for the treatment and storage of waste, EUR 700 million for controlled thermonuclear fusion, EUR 50 million for other Euratom activities, and EUR 330 million for the Joint Research Centre's Euratom activities.

The Commission shall present a programming report on all the activities to be financed under heading 3 each year so as to ensure that the multiannual framework programme is compatible with the ceiling under heading 3 of the financial perspective. This report shall be made available every year by 30 June.

Justification:

The budgetary authority should have a clear idea of the financial impact of the multiannual framework programme on other activities in heading 3. Consequently, the Commission should

¹ OJ C 180E, 26.6.2001, p. 177.

present a programming report on all activities that are to be financed under heading 3 each year.

Amendment 12

Article 2 (2)

2. The detailed rules for financial participation by the Community shall be governed by the Financial Regulation applicable to the General Budget of the European Communities, supplemented where appropriate by the research and training programme(s) which the Council will adopt in order to implement this Decision.

2. The detailed rules for financial participation by the Community shall be governed by the Financial Regulation applicable to the General Budget of the European Communities, supplemented where appropriate by the research and training programme(s) which the Council will adopt in order to implement this Decision.

Each specific programme shall have its own budget line under heading 3 of the general budget so as to ensure the follow-up of the financial implementation and guarantee a better flow of information between the Commission and the budgetary authority on the activities financed under the framework programme.

Justification:

The rapporteur considers that the reduction of thematic priorities and their concentration under one heading may cause a risk to the transparency and accountability of these projects. To ensure the monitoring of these activities, it is necessary to set up a separate budget line for each specific programme.

Amendment 13

Article 3

All the research activities carried out under the framework programme 2002-2006 must be carried out in compliance with fundamental ethical principles.

All the research activities carried out under the framework programme 2002-2006 must be carried out in compliance with fundamental ethical principles ***and gender equality.***

The multiannual framework programme shall provide financial support to cooperation with Central and Eastern European researchers and supply information to the applicant countries on potential research opportunities.

Justification:

The rapporteur considers that the Commission's proposal should be complemented with a further emphasis on gender equality and cooperation with candidate countries.

Amendment 14

Article 4

Progress with implementing the framework programme 2002-2006, and in particular progress towards achieving its objectives and meeting its priorities, shall be presented in detail in the report to be published by the Commission each year pursuant to Article 7 of the Treaty.

Progress with implementing the framework programme 2002-2006, and in particular progress towards achieving its objectives and meeting its priorities, shall be presented in detail in the report to be published by the Commission each year pursuant to Article 7 of the Treaty.

The Commission shall present a report on the financial implementation of the specific programmes every twelve months. In addition, it 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:

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

AMENDMENTS TO THE DRAFT LEGISLATIVE RESOLUTION

Amendment 15

[The European Parliament,]

Considers that the financial envelope of the proposal should be compatible with the ceiling under heading 3 of the current Financial Perspective without restricting other policies.

Justification:

The amount proposed for the multiannual programme should be compatible with the ceiling under the financial perspective. If, in the course of the adoption of the decision, other amounts were to be proposed by the legislative authority, the budgetary authority would need to be consulted again. In this case, the Committee on Budgets would consider the impact on the ceiling under the current financial perspective. Similarly, if during the multiannual framework programme the evolution of the ceiling of the financial perspective were to change dramatically, the budgetary authority would have to reconsider the financial envelope.

**MAXIMUM OVERALL AMOUNT, RESPECTIVE SHARES AND
INDICATIVE BREAKDOWN OF 6th FRAMEWORK PROGRAMME¹**

Community framework programme	EUR million
First activity ² :	13 570
Second activity ³ :	600
Third activity ⁴ :	300
Fourth activity ⁵ :	1 800
Maximum overall amount	16 270

Indicative breakdown of Community framework programme in main areas:

1) Integrating research^{6 7}	12 770
• Genomics and biotechnology for health	2 000
• Information society technologies	3 600
• Nanotechnologies, intelligent materials, new production processes	1 300
• Aeronautics and space	1 000
• Food safety and health risks	600
• Sustainable development and global change	1 700
• Citizens and governance in the European knowledge-based society	225
• Anticipating the EU's scientific and technological needs ⁸	2 345
2) Structuring the European Research Area	3 050
• Research and innovation	300
• Human resources	1 800
• Research infrastructures	900
• Science/society	50
3) Strengthening the foundations of the European Research Area	450
• Support for the coordination of activities	400
• Support for the coherent development of policies	50
Total	16 270

EURATOM framework programme	EUR million
Treatment and storage of nuclear waste	150

¹ As referred to in Article 164 of the EC Treaty.

² Covering the activities carried out under the heading "Integrating research", with the exception of international cooperation activities; research infrastructures, and the theme "Science/Society" carried out under the heading "Structuring the European Research Area; and activities carried out under the heading "Strengthening the foundations of European Research Area".

³ Covering the international cooperation activities carried out under the heading "Integrating research", in the priority areas and under the heading of anticipating the EU's scientific and technological needs.

⁴ Covering the specific activities on the theme "Research and innovation" carried out under the heading "Structuring the European Research Area" in addition to innovation activities carried out under the heading "Integrating research".

⁵ Covering the activities concerning human resources and support for mobility carried out under the heading "Structuring the European Research Area".

⁶ The aim is to allocate at least 15% of the financial resources assigned to this heading to SMEs.

⁷ Including EUR 600 million in total for international cooperation activities.

⁸ Including EUR 715 million for JRC activities.

Controlled thermonuclear fusion	700 ¹
Other activities	50
JRC activities	330 ²
Total	1 230

Grand total	17 500
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¹ Of which EUR 200 million is foreseen for participation in the ITER project.

² Of which EUR 110 million is foreseen for the treatment and storage of waste.

11 October 2001

OPINION OF THE COMMITTEE ON CITIZENS' FREEDOMS AND RIGHTS, JUSTICE AND HOME AFFAIRS

for the Committee on Industry, External Trade, Research and Energy

on the proposal for a Council decision concerning the multiannual framework programme 2002-2006 of the European Community for research, technological development and demonstration activities aimed at contributing towards the creation of the European research area
(COM(2001) 94 – C5-0087/2001 – 2001/0053(COD))

Draftsman: Gianni Vattimo

PROCEDURE

The Committee on Citizens' Freedoms and Rights, Justice and Home Affairs appointed Gianni Vattimo draftsman at its meeting of 10 July 2001.

It considered the draft opinion at its meeting of 10 October 2001.

At the latter meeting it adopted the following amendments unanimously.

The following were present for the vote: Graham R. Watson, chairman; Robert J.E. Evans, vice-chairman; Gianni Vattimo, draftsman; Charlotte Cederschiöld, Carlos Coelho, Gérard M.J. Deprez, Giuseppe Di Lello Finuoli, Jorge Salvador Hernández Mollar, Margot Keßler, Ole Krarup, Rodi Kratsa-Tsagaropoulou (for Thierry Cornillet), Alain Krivine (for Pernille Frahm), Hartmut Nassauer, Elena Ornella Paciotti, Hubert Pirker, Martine Roure (for Martin Schulz), Ilka Schröder (for Alima Boumediene-Thiery, pursuant to Rule 153(2)), Patsy Sørensen, Joke Swiebel, Anna Terrón i Cusí, Astrid Thors (for Baroness Sarah Ludford, pursuant to Rule 153(2)) and Christian Ulrik von Boetticher.

SHORT JUSTIFICATION

The multiannual framework programme 2002-2006 for Community research and technological development must be presented as an effective instrument for the establishment of the European Research Area, as well as helping to meet the criteria laid down by the European Council at the Lisbon summit: a knowledge-based economy and society must be developed in the European Union, fully recognising the value of innovation, competitiveness and employment, sustainable growth and social cohesion, and promoting a principle of democratic and open governance.

The remarks set out here, concerning the proposal for a decision on the forthcoming framework programme, stress the absolute importance of an emerging public debate and, in general, the need for transparency and a democratic approach in the sector of research and development. We therefore consider it important to insert a paragraph devoted to citizens and governance in the European knowledge-based society. However, by the same token, it should be stressed that Community action must also back a series of initiatives aimed at stepping up citizen participation in the debate on the topics linked to the framework programme. New information and consultation procedures must also be devised to involve Union citizens increasingly actively in the framework programme decisions in the areas of the environment, food, and research into health and medicines.

The condition of compliance with fundamental ethical principles, in particular those included in the Charter of Fundamental Rights of the European Union, must be made binding for the conduct of the research activities envisaged in the framework programme. Article 3 of the proposal for a decision must also contain specific reference to respect for the ethical principles listed in the relevant international conventions, the Council of Europe's Convention on Human Rights and Biomedicine, the Additional Protocol on Prohibition of Cloning Human Beings, the Universal Declaration on the Genome and Human Rights and the relevant resolutions adopted by the World Health Organisation.

The process of monitoring and assessing the progress made in the implementation of the framework programme is considered of fundamental importance for the achievement of the framework programme's objectives. This justifies the need for the Commission to submit a general report and an independent assessment of the measures carried out, in good time before the proposal for the subsequent framework programme, as well as the Commission's preliminary communication to Parliament and the Council on the criteria which it considers should be the basis for the programme's priorities.

With regard to the priority thematic areas of research and, in particular, the measures envisaged in the field of genomics and biotechnology for health, we would stress the need to identify two specific objectives for the broad strategy to combat the three infectious diseases linked to poverty (AIDS, malaria and tuberculosis) and hence reduce the research deficit, on the part of private pharmaceutical industries, in the field of generic drugs, and to contain the cost patenting drugs inaccessible to the inhabitants of the least developed countries. A review of patent legislation is therefore considered to be a priority for Community action in the sector.

Another specific point is respect for the precautionary principle, in connection with experimentation on genetically modified organisms, which must be guaranteed without compromising the freedom and development of research, using effective procedures and methodologies, in order to ensure food safety for the people of Europe.

Finally, reiterating what was said in the report Parliament adopted on the 'Echelon' network, the countries of the Union should develop computer technology independent of the industries

of third countries, not only in order to protect European industries, but also and above all to safeguard the privacy of European citizens.

AMENDMENTS

The Committee on Citizens' Freedoms and Rights, Justice and Home Affairs calls on the Committee on Industry, External Trade, Research and Energy, as the committee responsible, to incorporate the following amendments in its report:

Text proposed by the Commission¹

Amendments by Parliament

Amendment 1 Recital 11

Research activities carried out within the framework programme **should** respect fundamental ethical principles, notably those which appear in the Charter of Fundamental Rights of the European Union.

Research activities carried out within the framework programme **must** respect fundamental ethical principles, notably those which appear in the Charter of Fundamental Rights of the European Union.

Justification

Research activities in general must without fail respect fundamental ethical principles.

Amendment 2 Recital 13

It is appropriate that the Commission **should** submit regular progress reports on the implementation of the framework programme 2002-2006 and ***that it should*** have an independent assessment carried out concerning the implementation of the activities in good time and before submitting its proposal for the next framework programme.

The Commission **must** submit regular progress reports on the implementation of the framework programme 2002-2006 and **must** have an independent assessment carried out concerning the implementation of the activities in good time and before submitting its proposal for the next framework programme.

¹ OJ C

Justification

The Commission must submit to Parliament the report on developments in and the results achieved by the research programme.

Amendment 3
Recital 13c (new)

When determining the main thematic areas for future framework programmes, in addition to furnishing Parliament with a detailed report on implementation of the previous framework programme, the Commission must first notify Parliament and the Council of the criteria it intends to use to set priorities for the framework programme.

Justification

The European Parliament and the Council should be informed of the results of the previous framework programme and should also be involved in setting the priorities for the framework programme.

Amendment 4
Recital 13d (new)

Information and consultation measures must be implemented with a view to ensuring that European Union citizens are increasingly involved in decisions relating to framework programme themes, particularly those concerning the environment, food and research into health and medicines.

Justification

The Union must make citizens more aware of its efforts in framework programme action areas in which the need for regulation is felt to be most urgent, such as the environment, food safety and pharmaceutical research.

(Amendment 5) Article 3

All the research activities carried out under the framework programme 2002-2006 must be carried out in compliance with fundamental ethical principles.

All the research activities carried out under the framework programme 2002-2006 must be carried out in compliance with fundamental ethical principles.

All the research activities conducted in the context of this framework programme must be carried out in compliance with fundamental ethical principles, in particular:

- ***the principles set out in the Charter of Fundamental Rights of the EU and in the relevant international conventions, such as the Helsinki Declaration adopted in Edinburgh in October 2000;***
- ***the Council of Europe's Convention on Human Rights and Biomedicine, signed in Oviedo on 4 April 1997;***
- ***the Additional Protocol on the Prohibition of Cloning Human Beings, signed in Paris on 12 January 1998;***
- ***the Declaration on the Human Genome and Human Rights, adopted by UNESCO;***
- ***the relevant resolutions adopted by the World Health Organisation (WHO);***

Justification

It is necessary and useful to provide a few examples of the legal reference framework on the subject of fundamental ethical principles with which research must comply.

1.1.1. Genomics and biotechnology for health

Objective

The activities carried out in this area are intended to help Europe exploit, by means of an integrated research effort, breakthroughs achieved in decoding the genomes of living organisms, more particularly for the benefit of public health and citizens and to increase the competitiveness of the European biotechnology industry.

Justification of the effort and European added value

‘Post-genomic’ research based on analysis of the human genome and genomes of model (animal, plant and microbial) organisms, will culminate in numerous applications in various sectors, and notably in the development of new diagnostic tools and new treatments capable of helping to combat diseases that are not at present under control, offering major potential markets.

However, this work requires considerable and sustained financial outlay. In the United States, public and private spending on post-genomic research is rising steadily and significantly: nearly 2 billion dollars of public-sector funding per annum, essentially managed by the NIH¹ (the total budget for which will increase by 14.4% in 2001) and twice as much industrial funding.

Europe's spending on research is at present much lower and less coherent. The launching of publicly funded research programmes on post-genome research in

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Europe's spending on research is at present much lower and less coherent. The launching of publicly funded research programmes on post-genome research in

¹ National Institutes of Health

several Member States is a big step in the right direction. All in all, however, the efforts made are inadequate and dispersed.

European industry also spends much less on research than US industry does: 70% of genomics companies are located in the United States and a substantial and increasing proportion of European private-sector investment is made in that country.

To enable the EU to improve its position in this area and benefit fully from the economic and social spin-offs of the expected developments, it is necessary both to increase investment significantly and integrate the research activities conducted in Europe within a coherent effort.

Actions envisaged

The Community activities carried out to this end will address the following aspects:

- Fundamental knowledge and basic tools for functional genomics;
- gene expression and proteomics;
- structural genomics;
- comparative genomics and population genetics;
- bioinformatics;
- application of knowledge and technologies in the field of genomics and biotechnology for health:
- technological platforms for the development of new diagnostic, prevention and therapeutic tools;
- support for innovative research in genomics start-up companies.
- Application of medical genomics knowledge and technologies in the following fields:
- combating cancer, degenerative diseases of the nervous system, cardiovascular diseases and rare diseases;
- combating resistance to drugs;
- studying human development, the brain and the ageing process.

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- Application of medical genomics knowledge and technologies in the following fields:
- combating cancer, degenerative diseases of the nervous system, cardiovascular diseases and rare diseases;
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- studying human development, the brain and the ageing process.

A broader approach will be pursued with regard to combating the three poverty-linked infectious diseases (Aids, malaria and tuberculosis) which have priority in terms of disease control at EU and international level.

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The Union will promote this research above all with a view to: (a) filling the gaps in the research carried out by private pharmaceutical companies in the field of 'generic' drugs to treat diseases particularly widespread in poor countries, which are unprofitable; (b) reducing (by promoting public funding for university laboratories) the cost of patenting drugs which (as in the case of AIDS) are as yet inaccessible to patients living in less-developed countries.

Justification

The Union's commitment at international level should be to invest in research activities aimed at facilitating access for all citizens to medical care. It therefore seems appropriate to specify some of the ways in which this aim should be achieved.

(Amendment 7)

Annex I, point 1.1.2., final indent

- Multisensorial interfaces capable of understanding and interpreting the natural expression of human beings through words, gestures and the various senses, virtual environments, as well as multilingualistic and multicultural systems indispensable to the establishment of the knowledge-based society on a European scale.

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As the EP's report on the Echelon network recently showed, the countries of the Union should develop computer technology (means of transmission, encryption and decryption) independent of the industries of third countries (the USA above all), not only in order to protect European industries, but also and in particular with a view to respect for the privacy of EU citizens.

Justification

In this connection it should be remembered that the report Parliament adopted on the Echelon system calls on the Commission to focus its efforts on the development of a computer technology to ensure the protection of European industries and the privacy of Union citizens.

(Amendment 8)
Annex I, point 1.1.5.

1.1.5. Food safety and health risks

Objective

The activities carried out in this area are intended to help establish the integrated scientific and technological bases needed to develop a system of production and distribution of safe and healthy food and control food-related risks, relying in particular on biotechnology tools, as well as health risks associated with environmental changes.

Justification of the effort and European added value

The recent food crises, and in particular BSE, have highlighted both the complexity of food safety issues and the fact that in most cases they have international and cross-border implications. The integration of the European internal market as regards agriculture and food makes it necessary to address the problems that arise in this area, and hence to carry out related research, on a European scale. It is against this background that the European Food Authority will shortly be established.

Citizens and consumers expect that research will help to guarantee that the food and products marketed are safe and healthy and can be consumed in total safety.

This requires the availability of the most complete, precise and up to date scientific knowledge. Apart from the public health

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aspect, the prosperity of a sector representing some EUR 600 billion in terms of annual turnover and 2.6 million jobs is at stake.

Europe also needs to be able to make a substantial contribution to the research efforts on these issues, which now arise at world level, as well as a coherent contribution to the international debate on them, based on the most precise and complete knowledge.

The same remarks apply to the various aspects of the problems associated with the health impact of environmental changes which are a source of growing concern for European citizens, and which often manifest themselves on an international scale. For all these reasons, but also in order to derive the benefit of the combination of the best sources of expertise available in complex areas, the research in question should be carried out at European level in such a way as to ensure genuine coordination of national activities.

Actions envisaged

Community activities will cover research relating to various aspects of the control of health risks and links between health and food:

- methods of analysis and detection of chemical contaminants and pathogenic microorganisms (viruses, bacteria, parasites, and new agents of the prion type);
- impact of animal feed, and the use of sub-products of different origins for that feed, on human health;
- 'traceability' processes, in particular relating to genetically modified organisms, including those based on recent biotechnology developments;

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- impact of animal feed, and the use of sub-products of different origins for that feed, on human health;
- 'traceability' processes, in particular relating to genetically modified organisms, including those based on recent biotechnology developments;
- ***procedures and methods capable of ensuring application of the precautionary principle to experiments using GMOs,***

- safer production methods and healthier foodstuffs, including those based on biotechnologies and on organic farming processes;
- epidemiology of food-related diseases and genetic susceptibilities;
- impact of food, and in particular products containing genetically modified organisms, on health;
- environmental health risks, with emphasis being placed on cumulative risks, transmission routes to human beings, long-term effects and exposure to small doses, as well as the impact on particularly sensitive groups, and especially children.

whilst respecting the requirements of the freedom and development of research.

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- impact of food, and in particular products containing genetically modified organisms, on health;
- environmental health risks, with emphasis being placed on cumulative risks, transmission routes to human beings, long-term effects and exposure to small doses, as well as the impact on particularly sensitive groups, and especially children.

Justification

Specific reference to application of the precautionary principle to experiments with GMOs is needed.

(Amendment 9)
Annex I, 1.1.7.

Actions envisaged

Action by the Community will focus on the following themes:

Knowledge-based society

- Improving the production, transmission and utilisation of knowledge in Europe;
- options and choices for the development of a knowledge-based society serving the EU objectives set at the Lisbon and Nice European Councils, in particular as regards improving the quality of life, employment and labour market policies, life-long education and training, and strengthening social cohesion and sustainable development;
- variety of transition dynamics towards the knowledge-based society at local, national and regional level.

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- variety of transition dynamics towards the knowledge-based society at local, national and regional level.

Citizenship, democracy and new forms of governance

- consequences of European integration and enlargement of the EU for democracy, the concept of legitimacy, and the functioning of the institutions;
- redefinition of areas of competence and responsibility, and new forms of governance;
- security issues connected with the resolution of conflicts and restoration of peace and justice;
- emergence of new forms of citizenship and identities, forms and impact of cultural diversity in Europe.

In operational terms, Community activities will focus on support for:

- transnational research and comparative studies and the coordinated development of statistics and qualitative and quantitative indicators;
- interdisciplinary research in support of public policies;
- the establishment and exploitation on a European scale of research infrastructures and data and knowledge bases.

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- transnational research and comparative studies and the coordinated development of statistics and qualitative and quantitative indicators;
- interdisciplinary research in support of public policies;
- the establishment and exploitation on a European scale of research infrastructures and data and knowledge bases.

- initiatives aimed at stepping up citizen participation in the debate on topics linked with the framework programme.

Justification

The involvement of the population must be a constant priority in every Union activity, as happens, for example, in the ‘conferences des citoyens’ tried out in France and elsewhere.

(Amendment 10)
Annex I, point 2.4.

Actions envisaged

In line with the Commission Staff Working Paper ‘Science, Society and Citizens in Europe’¹ the activities carried out in this area in the whole field of science and technology will particularly address the

¹ SEC (2000) 1973

Actions envisaged

In line with the Commission Staff Working Paper ‘Science, Society and Citizens in Europe’¹ the activities carried out in this area in the whole field of science and technology will particularly address the

following themes:

- Bringing research closer to society :
Science and governance; scientific advice; involvement of society in research; foresight;
- Ensuring that use of scientific and technological progress takes place in a responsible fashion: risk; expertise; implementing the precautionary principle; European reference system; ethics;
- Stepping up the science/society dialogue: new forms of dialogue; knowledge of science by citizens; young people's interest in scientific careers; women in science and research.

They will take the form of activities in support of:

- networking and establishment of structural links between the institutions and activities concerned at national, regional and European level;
- exchange of experience and good practice;
- carrying out specific research;
- high-profile awareness-raising initiatives such as prizes and competitions;
- establishing data and information bases and carrying out studies, in particular statistical and methodological studies, on the different themes.

following themes:

- Bringing research closer to society :
Science and governance; scientific advice; involvement of society in research; foresight;
- Ensuring that use of scientific and technological progress takes place in a responsible fashion: risk; expertise; implementing the precautionary principle; European reference system; ethics;
- *Revision of patent legislation in order to reduce the burden of the cost of patents on products of general use such as pharmaceuticals and biotechnologies;*
- Stepping up the science/society dialogue: new forms of dialogue; knowledge of science by citizens; young people's interest in scientific careers; women in science and research.

They will take the form of activities in support of:

- networking and establishment of structural links between the institutions and activities concerned at national, regional and European level;
- exchange of experience and good practice;
- carrying out specific research;
- high-profile awareness-raising initiatives such as prizes and competitions;
- establishing data and information bases and carrying out studies, in particular statistical and methodological studies on the different themes.

Justification

The advisability of revising the legislation on patents should be assessed, in order to reduce their burden on the costs of products of general use.

18 September 2001

OPINION OF THE COMMITTEE ON EMPLOYMENT AND SOCIAL AFFAIRS

for the Committee on Industry, External Trade, Research and Energy

on the proposal for a Council decision concerning the multiannual framework programme 2002-2006 of the European Community for research, technological development and demonstration activities aimed at contributing towards the creation of the European research area

(COM(2001) 94 – C5-0087/2001 – 2001/0053(COD))

Draftsman: Mario Mantovani

PROCEDURE

The Committee on Employment and Social Affairs appointed Mario Mantovani draftsman at its meeting of 15 March 2001.

It considered the draft opinion at its meetings of 10 July and 12 September 2001.

At the latter meeting it adopted the following amendments by 33 votes with 2 abstentions.

The following were present for the vote: Michel Rocard, chairman; Marie-Thérèse Hermange and José Ribeiro e Castro, vice-chairmen; Mario Mantovani, draftsman; Jan Andersson, Elspeth Attwooll (for Luciana Sbarbati), María Antonia Avilés Perea, Regina Bastos, Andre Brie (for Herman Schmid), Philip Bushill-Matthews, Luigi Cocilovo, Elisa Maria Damião, Proinsias De Rossa, Jillian Evans, Carlo Fatuzzo, Ilda Figueiredo, Fiorella Ghilardotti, Marie-Hélène Gillig, Anne-Karin Glase, Richard Howitt (for Claude Moraes), Stephen Hughes, Karin Jöns, Ioannis Koukiadis, Rodi Kratsa-Tsagaropoulou, Jean Lambert, Elizabeth Lynne, Manuel Medina Ortega (for Alejandro Cercas), Manuel Pérez Álvarez, Bartho Pronk, Jean Saint-Josse, Ilkka Suominen, Helle Thorning-Schmidt, Ieke van den Burg, Anne E.M. Van Lancker and Barbara Weiler.

AMENDMENTS

The Committee on Employment and Social Affairs calls on the Committee on Industry, External Trade, Research and Energy, as the committee responsible, to incorporate the following amendments in its report:

Text proposed by the Commission¹

Amendments by Parliament

ANNEX I: SCIENTIFIC AND TECHNOLOGICAL OBJECTIVES AND BROAD LINES OF THE ACTIVITIES

1. INTEGRATING EUROPEAN RESEARCH

1.1. Priority thematic areas of research

1.1.2. Information society technologies

Amendment 1

Section 'Justification of the effort and European added value', last paragraph

Community actions will concentrate on the technological priorities that will make it possible to realise this vision. They will aim at mobilising the community of researchers around targeted initiatives, such as the development of the next generations of mobile communication systems, so as to achieve medium and long-term objectives while being able to react to the new needs and demands of markets as well as public policy.

Community actions will concentrate on the technological priorities that will make it possible to realise this vision. They will aim at mobilising the community of researchers around targeted initiatives, such as the development of the next generations of mobile communication systems **and of operational systems and hardware for the development of computers**, so as to achieve medium and long-term objectives while being able to react to the new needs and demands of markets as well as public **and social** policy.

Justification

Europe is heavily dependent on the USA and Japan for hardware development. There are considerable risks involved in Europe's failure to keep pace in this core area of the new economy. If Europe totally abandons this field to its competitors on the world market, the implications for the development of European technology and, ultimately, for employment could be serious. European research must, therefore, also concentrate on hardware development.

Amendment 2

Section 'Actions envisaged', first indent

¹ OJ C 180E, 26.6.2001 p. 156.

- ambient intelligence systems offering access to the information society for all, whatever their age and situation, as well as interactive and intelligent systems for health, mobility, security, leisure, preservation of the cultural heritage and environmental monitoring;

- ***the development of operating systems and hardware for the production of European computers and*** ambient intelligence systems offering access to the information society for all, whatever their age, ***disability*** and ***other particular*** situation, as well as interactive and intelligent systems for health, mobility, security, leisure, preservation of the cultural heritage and environmental monitoring;

Justification

It is particularly important that the new information technologies are used to help disabled people and people with specific needs.

Amendment 3

Section "Actions envisaged", indent 1

- ambient intelligence systems offering access to the information society for all, ***whatever their*** age ***and*** situation, as well as interactive and intelligent systems for health, mobility, security, leisure, preservation of the cultural heritage and environmental monitoring;

- ambient intelligence systems offering access to the information society for all ***regardless of age or*** situation, as well as interactive and intelligence systems for health, mobility, security, leisure, preservation of the cultural heritage and environmental monitoring. ***Intelligence systems should be particularly aimed at securing access for and participation by socially excluded and disadvantaged groups in society including disabled people; covering both design for all principles and assistive technologies in this field.***

Justification

To clarify the meaning of the phrase and highlight the need for the information society to be accessible to disadvantaged groups. Disabled people are particularly concerned as regards their particular access requirements to the information society and intelligence systems. The Lisbon Summit conclusions and the Social Policy Agenda also made particular reference to disability access to Information communication technologies. Therefore, disabled people

should be explicitly referred to under this action.

1.1.5. Food safety and health risks

Amendment 4 Heading

Food safety and health risks

Safety and health protection: food safety, health and safety at work, environmental health risks

Justification

Approximately 4.5 million accidents occur at work each year, some 5000 of which are fatal. Research should, therefore, also cover measures to prevent occupational diseases and accidents at work.

Amendment 5 Section 'Objective'

The activities carried out in this area are intended to help establish the integrated scientific and technological bases needed to develop a system of production and distribution of safe and healthy food and control food-related risks, relying in particular on biotechnology tools, as well as health risks associated with environmental changes.

The activities carried out in this area are intended to help establish the integrated scientific and technological bases needed to develop a system of production and distribution of safe and healthy food and control food-related risks, relying in particular on biotechnology tools, as well as health risks associated with environmental changes, ***working conditions or factors in the work environment***.

Justification

Approximately 4.5 million accidents occur at work each year, some 5000 of which are fatal. Research should, therefore, also cover measures to prevent occupational diseases and accidents at work.

Amendment 6 Section 'Justification of the effort and European added value', new paragraph after last

paragraph

The impact of work on the health and safety of workers is an important issue for a great deal of EU citizens. Over 5,000 workers are killed and over 4.5 million accidents occur every year as a result of workplace accidents in the EU. Equally, 77% of consumers interviewed in a recent European survey believe that protecting the health and safety of workers is an important area to which companies should contribute or support (health and safety coming above human rights and the environment). Through targeted and coordinated research across Europe, into safety management, safe working conditions and practices, work equipment and products, many accidents and illnesses could be avoided. Research will be one of the priority themes in the EU's new European Safety and Health Strategy 2002.

Justification

The new European Strategy on Safety and Health at Work will be adopted in early 2002. Research will be one of the key areas for attention in the Strategy. Unless a safety and health element is included at this stage in the EU Research programme, the first 3 years of the EU safety and health strategy will lack one of the key tools necessary in order to carry out the EU safety and health strategy.

Amendment 7

Section 'Actions envisaged', first sentence

Community activities will cover research relating to various aspects of the control of health risks ***and links between health and food:***

Community activities will cover research relating to various aspects of the control of health risks ***associated with food, environmental factors, the work environment and working conditions:***

Justification

Approximately 4.5 million accidents occur at work each year, some 5000 of which are fatal. Research should, therefore, also cover measures to prevent occupational diseases and accidents at work.

Amendment 8

Section 'Actions envisaged', eighth indent (new)

- work-related safety and health risks, with main emphasis on the changing world of work and the impact of new technologies and work practices on workers' safety and health, such as musculo-skeletal disorders and ergonomic factors, psycho-social issues (e.g. work-related stress), the use and substitution of new chemicals and substances and accident prevention.

Justification

Approximately 4.5 million accidents occur at work each year, some 5000 of which are fatal. Research should, therefore, also cover measures to prevent occupational diseases and accidents at work.

1.1.6. Sustainable development and global change

Amendment 9

Section 'Justification of the effort and European added value', third indent (new)

- a better understanding of the impact of globalisation of the economy on employment and the labour market.

Justification

Research on sustainability should also take account of globalisation of the economy.

Amendment 10
Annex I, Chapter 1.1.6., section 'Actions envisaged', new paragraph after last paragraph

Globalisation and sustainable development:

Community activities will concentrate particularly on studies into the impact of globalisation of the economy on employment and the labour market.

Justification

Research on sustainability should also take account of globalisation of the economy.

1.1.7. Citizens and governance in the European knowledge-based society

Amendment 11
Section 'Actions envisaged', sub-section 'Knowledge-based society', Title

Knowledge-based society

Knowledge-based society ***and social cohesion***

Justification

The amendment clarifies the definition of 'knowledge-based society' while also taking account of the aspects of the social policy agenda not yet covered.

Amendment 12
Section 'Actions envisaged', sub-section 'Knowledge-based society', first indent

- improving the production, transmission and utilisation of knowledge in Europe;

Research with reference to the objectives set by the Lisbon European Council and subsequent Councils, and with reference to the objectives of the social policy agenda, in particular:

Improving the production, transmission and utilisation of knowledge in Europe, life-long learning and gearing the education systems to the educational requirements of the future;

Justification

The amendment clarifies the definition of 'knowledge-based society' while also taking account of the aspects of the social policy agenda not yet covered.

Amendment 13

Section 'Actions envisaged', sub-section 'Knowledge-based society', second indent

- options and choices for the development of a knowledge-based society serving the EU objectives set at the Lisbon and Nice European Councils, in particular as regards improving the quality of life, employment and labour market policies, life-long education and training, and strengthening social cohesion and sustainable development;

Research in the field of employment and labour market policies

Justification

The amendment clarifies the definition of 'knowledge-based society' while also taking account of the aspects of the social policy agenda not yet covered.

Amendment 14

Section 'Actions envisaged', sub-section 'Knowledge-based society', new indent after second indent

- improving the quality of work and adapting to change, and improving the quality of life;

Justification

The amendment clarifies the definition of 'knowledge-based society' while also taking account of the aspects of the social policy agenda not yet covered.

Amendment 15

Section 'Actions envisaged', sub-section 'Knowledge-based society', new indent after second indent

- non-discrimination and equality of opportunity, including implementation of the 'mainstreaming' approach;

Justification

The amendment clarifies the definition of 'knowledge-based society' while also taking account of the aspects of the social policy agenda not yet covered.

Amendment 16

Section 'Actions envisaged', sub-section 'Knowledge-based society', new indent after second indent

- strengthening social cohesion and combating social exclusion;

Justification

The amendment clarifies the definition of 'knowledge-based society' while also taking account of the aspects of the social policy agenda not yet covered.

Amendment 17

Section 'Actions envisaged', sub-section 'Knowledge-based society', new indent after second indent

- investigating the need to reform the European social model, particularly pension schemes, in the light of demographic change and the enlargement of the EU;

Justification

The amendment clarifies the definition of 'knowledge-based society' while also taking account of the aspects of the social policy agenda not yet covered.

Amendment 18

Section 'Actions envisaged', sub-section 'Knowledge-based society', third indent

- variety of transition dynamics towards the

- variety of transition dynamics towards the

knowledge-based society at local, national and regional level.

knowledge-based society at local, national and regional level, ***and in line with sustainable development;***

Justification

The amendment clarifies the definition of 'knowledge-based society' while also taking account of the aspects of the social policy agenda not yet covered.

Amendment 19

Section "Actions envisaged", subheading "Citizenship, democracy and new forms of governance", first indent

- consequences of European integration and enlargement of the EU for democracy, the concept of legitimacy, and the functioning of the institutions;

Justification

The aim of this amendment is to achieve a balance between the actions envisaged: the foreign affairs aspect concerning security must be counterbalanced by a home affairs aspect concerning issues coming within home affairs and the observance of fundamental rights.

Amendment 20

Section "Actions envisaged", subheading "Citizenship, democracy and new forms of governance", second indent

- redefinition of areas of competence and responsibility, and new forms of governance;

- redefinition of areas of competence and responsibility ***between the levels of government existing within the European Union***, and new forms of governance;

Justification

The aim of this amendment is to achieve a balance between the actions envisaged: the foreign affairs aspect concerning security must be counterbalanced by a home affairs aspect concerning issues coming within home affairs and the observance of fundamental rights.

Amendment 21

Section "Actions envisaged", subheading "Citizenship, democracy and new forms of governance", third indent

- security issues connected with the resolution of conflicts and restoration of peace and justice;

Justification

The aim of this amendment is to achieve a balance between the actions envisaged: the foreign affairs aspect concerning security must be counterbalanced by a home affairs aspect concerning issues coming within home affairs and the observance of fundamental rights.

Amendment 22

Section "Actions envisaged", subheading "Citizenship, democracy and new forms of governance", new indent after third indent

- safeguard of fundamental rights and improved cooperation between the European Union and the Member States in the area of justice and home affairs;

Justification

The aim of this amendment is to achieve a balance between the actions envisaged: the foreign affairs aspect concerning security must be counterbalanced by a home affairs aspect concerning issues coming within home affairs and the observance of fundamental rights.

Amendment 23

Section "Actions envisaged", subheading "Citizenship, democracy and new forms of governance", fourth indent

- emergence of new forms of citizenship and identities, forms and impact of cultural diversity in Europe;

- emergence of new forms of citizenship and identities, forms and impact of cultural diversity in Europe, ***with special attention to the protection of linguistic minorities.***

Justification

The aim of this amendment is to achieve a balance between the actions envisaged: the foreign affairs aspect concerning security must be counterbalanced by a home affairs aspect

concerning issues coming within home affairs and the observance of fundamental rights.

Amendment 24

Section "Justification of the effort and European added value", paragraph 3

Europe's transition towards a knowledge-based economy and society, and its sustainable development in the interests of the quality of life of all citizens will be all the easier if it takes place in a way which is properly understood and managed. This requires a substantial research effort concerning the issues of integrated and sustainable economic and social progress based on the fundamental values of justice and solidarity which characterise the European model of society. In this respect, economic, political, social and human sciences research should more particularly help to ensure the harnessing and exploitation of an exponentially increasing quantity of information and knowledge and an understanding of the processes at work in this area.

Europe's transition towards a knowledge-based economy and society, and its sustainable development in the interests of the quality of life of all citizens will be all the easier if it takes place in a way which is properly understood and managed.
Particular attention should be given to disadvantaged and socially excluded groups such as disabled people, low income groups and elderly people. This requires a substantial research effort concerning the issues of integrated and sustainable economic and social progress based on the fundamental values of justice and solidarity which characterise the European model of society. In this respect, economic, political, social and human sciences research should more particularly help to ensure the harnessing and exploitation of an exponentially increasing quantity of information and knowledge and an understanding of the processes at work in this area.

Justification

Particular attention should be given in the context of quality of life measures to improve the status of more vulnerable social groups such as disabled people, low income people and elderly people; those groups which are particularly marginalised in a knowledge-based society.

1.2. Anticipating the EU's scientific and technological needs

Amendment 25

Third indent (new)

- enable the themes which have already received initial consideration under the Fifth Framework Programme (for example, research into the ageing of the population) to be followed up and

explored in greater depth.

Justification

The framework programme should also cover research in the socio-economic field. Even though it is objectively difficult to carry out research and collect statistics in this area, studies could at least be drawn up on the basis of indicators and reference models for all European countries which do not carry out specific research into the ageing of the population.

1.2.1. Activities carried out on the basis of calls for proposals

Amendment 26
Fifth sub-indent new)

- Research relating to the needs of disabled people and means to ensure their full and equal inclusion in society; to enhance the quality of life and independence of disabled people

Justification

It is regrettable that research relating to disabled people has been discontinued. Research activities should go beyond a purely commercial approach and that social issues as well as consumer requirements should be addressed.

In the case of disabled people this means that quality of life must be achieved through the development of products such as assistive devices, but also including research on support structures and independent living centres for disabled people, rehabilitation, accessibility in urban development, housing and transport. An approach supported by the European Parliament Resolution on "Towards a Barrier free Europe for people with disabilities".

Amendment 27
Paragraph 1, first indent, third sub-indent

research in support of ***the objectives set for the EU by the European Council***, for example the objectives set by the Lisbon and Feira European Councils with regard to economic policy, Information Society and e-Europe, enterprise, social policy and employment, education and training,

research in support of ***competitiveness and social cohesion***, for example ***in support of*** the objectives set by the Lisbon and Feira European Councils with regard to economic policy, ***the social policy agenda adopted by the Nice European Council and the additional aims set out by the***

including the requisite statistical methods and tools;

European Parliament in its related resolution concerning the Information Society and e-Europe, enterprise, social policy and employment, ***social protection (with particular reference to the challenges of demographic change and enlargement)***, education and training, including the requisite statistical methods and tools;

Justification

The amendment gives more detailed clarification of the European Council's social and economic objectives.

Amendment 28

Sub-section 'Specific research activities for SMEs', first paragraph

SMEs will participate in the framework programme essentially in the context of the activities carried out in the priority thematic areas.

SMEs will participate in the framework programme essentially in the context of the activities carried out in the priority thematic areas; ***specific measures will be drawn up to encourage their participation.***

Justification

There is a risk in the Commission's focus on research through large-scale projects that SMEs are excluded from the research programme. Special measures must, therefore, be introduced to facilitate access to the programmes for SMEs.

1.2.1. Joint Research Centre activities

Amendment 29

New paragraphs after last paragraph (new)

Finally the JRC will have the following horizontal tasks within the framework of its powers:

- **Networking**
- *Promoting networks of researchers, national research establishments and businesses, and coordination of networks of excellence in the specific fields of JRC research.*
- **Training**
- *Training researchers and participating in mobility programmes.*
- **Enlargement and international cooperation**
- *Preparing for the forthcoming enlargement of the EU and strengthening international cooperation, in particular by promoting exchanges of knowledge with research establishments in the applicant countries and third countries, and implementing joint projects.*

Justification

There is a need to define the tasks of the Joint Research Centre over and above its research activity in specific fields. As a central body, the JRC is in the best position to take on horizontal tasks under the research programme.

2. Structuring the European Research Area

2.1. Research and innovation

Amendment 30

Section "Justification of the effort and European added value"

Europe's comparatively poor ability to transform the results of research work and scientific and technological breakthroughs into industrial, economic and commercial successes, is one of its most notable weaknesses. Actions to stimulate business innovation at European level can help to raise the overall level of Europe's performance and increase European capacities in this area, by helping businesses and innovators in their efforts to operate on a European scale and on international markets,

Europe's comparatively poor ability to transform the results of research work and scientific and technological breakthroughs into industrial, economic and commercial successes, is one of its most notable weaknesses. Actions to stimulate business innovation at European level can help to raise the overall level of Europe's performance and increase European capacities in this area, by helping businesses and innovators in their efforts to operate on a European scale and on international markets,

and by giving stakeholders in all regions of the EU the benefit of the experience and knowledge acquired in other regions through initiatives undertaken at this level.

and by giving stakeholders in all regions of the EU the benefit of the experience and knowledge acquired in other regions through initiatives undertaken at this level. ***Activities supported in the field of research and innovation should ensure user involvement in the development of innovations.***

Justification

A weakness of former EU research programmes has been low level of user participation in the projects supported by the programmes. In recent years the principle of user involvement has started to become a reality and an accepted approach in Research and development work; this positive shift in thinking should be reflected in the new Framework Programme.

For the results of research and development to have effective practical application, it must be acknowledged that user involvement is essential. Users know best what their needs are and which new products and services they can most benefit from in practice.

Amendment 31

Section "Actions envisaged", paragraph 3, indent 1

- networking of stakeholders in the European innovation system and carrying out analyses and studies in order to promote exchanges of experience and good practice;

- networking of stakeholders ***and users*** in the European innovation system and carrying out analyses and studies in order to promote exchanges of experience and good practice;

Justification

See justification to amendment 30.

2.2. Human resources and mobility

Amendment 32

Section 'Actions envisaged', second indent

- individual support measures for European researchers for the purposes of mobility to another European or a third country, and for ***top-class*** third-country researchers wishing to come to Europe;

- individual support measures for European researchers ***and young researchers in training who have already concluded their studies*** for the purposes of mobility to another European or a third country, and for third-country researchers ***and young***

researchers in training who have already concluded their studies wishing to come to Europe;

Justification

This amendment seeks to open up the European research area as wide as possible for mobility. It would be wrong to restrict the access of third-country researchers to 'top-class' researchers. The young researchers of today are the top-class researchers of tomorrow.

Amendment 33

Section 'Actions envisaged', third indent

- mechanisms for return to the countries and regions of origin, as well as professional (re-)integration mechanisms, ***in particular linked to the granting of global and individual support;***

- mechanisms for ***the integration of researchers and their families in the host country, for*** return to the countries and regions of origin, as well as professional (re-)integration mechanisms, ***ensuring close cooperation with the EURES programme;***

Justification

Mobility programmes for researchers are only effective if they take account of researchers' family circumstances. The Commission's proposal to provide assistance only for return to the country of origin is also inadequate.

2.3. Research infrastructures

Amendment 34

Section 'Actions envisaged', new indent after fourth indent (new)

- measures to remove obstacles to mobility, including support structures for dismantling administrative rules affecting mobility.

Justification

According to the Commission's action plan to remove obstacles to the mobility of researchers and students, police procedures and other administrative rules are a fundamental reason for low mobility rates among researchers. Although this problem must be resolved primarily by adapting the 'acquis communautaire' in relation to immigration and the right of residence, the present research programme can at least go some way towards simplifying administration.

2.4. Science/society

Amendment 35

Section "Actions envisaged", indent 1

(amendment to indent 2 does to apply to the English version)

– *Bringing research closer to society :*
Science and governance; scientific advice;
involvement of society in research;
foresight;

- *Bringing research closer to society:*
science and governance; scientific advice;
involvement of society, **which would**
include users, in research; foresight;

Justification

For the results of research and development to have effective practical application, it must be acknowledged that user involvement is essential. Users know best what their needs are and which new products and services they can most benefit from in practice.

With regard to scientific and technological research, adherence to strong ethical principles is essential. Particular caution must be taken to safeguard the interests of vulnerable groups such as disabled people with significant disabilities, ethical principles which ensure prior informed consent of the individual regarding their participation in a project. In the case of persons unable to represent themselves, their parents / family must give prior informed consent.

3. Strengthening the foundations of the European Research Area

Amendment 36

Section "Actions envisaged", paragraph 1, indent 1, sub-indent 2

- networking of research activities conducted at national level.

- networking of research activities conducted at the national and EU level¹.

Footnote:

¹ The EU research network on work-related health and safety in the form of the "Topic Centre on Research – Work and Health" of the Bilbao European Agency for Safety and Health at Work is a good example of such networking.

Justification

The European Agency for Safety and Health at Work has set up a unique EU network of national research centres on occupational safety and health. This network called "Topic Centre on Research – Work and Health" brings together national occupational safety and health research institutes in the form of a consortium under the co-ordination of the European Agency for Safety and Health at Work.

Amendment 37

Section 3 "Actions envisaged", paragraph 2, indent 1, sub-indent 2

– setting-up and support for the operation of specialised working groups and forums for concertation and political debate;

– setting-up and support for the operation of specialised working groups and forums for concertation and political debate, **also involving user groups**;

Justification

For the results of research and development to have effective practical application, it must be acknowledged that user involvement is essential. Users know best what their needs are and which new products and services they can most benefit from in practice.

ANNEX II: MAXIMUM OVERALL AMOUNT, RESPECTIVE SHARES AND INDICATIVE BREAKDOWN

Amendment 38

Table, point 1) 'Integrating research', footnote 43

1) Integrating research ^{43 44}

⁴³ The aim is to allocate at least **15%** of the

1) Integrating research ^{43 44}

⁴³ The aim is to allocate at least **20%** of the

financial resources assigned to this heading to SMEs.

financial resources assigned to this heading to SMEs.

Justification

SMEs are the driving forces of economic growth and employment. Their access to research must be given particular encouragement.

Amendment 39

Table, point 1) 'Integrating research', last indent, footnote

- Anticipating the EU's scientific and technological needs ⁴⁵

⁴⁵ Including EUR **715** million for JRC activities.

- Anticipating the EU's scientific and technological needs ⁴⁵

⁴⁵ Including EUR **750** million for JRC activities.

Justification

This amendment is related to the amendment to Annex I, Chapter 1.2.2., 'Joint Research Centre activities', which broadens the tasks of the JRC.

Amendment 40

Table, point 1) 'Integrating research', seventh indent

- Citizens and governance in the European knowledge-based society

225

- Citizens and governance in the European knowledge-based society

300

Justification

This amendment is related to the amendment to Annex I, Chapter 1.1.7, 'Actions envisaged' under 'Knowledge-based society' which broadens this area of research considerably. Should this amendment be adopted, the total for all activities given at the bottom of the table must be increased by 75 million euro.

ANNEX III: INSTRUMENTS AND DETAILED RULES FOR COMMUNITY FINANCIAL PARTICIPATION

1. INSTRUMENTS

1.1. Instruments to integrate research

1.1.1. Networks of excellence

Amendment 41
fifth paragraph

The networks of excellence will be selected on the basis of calls for proposals.

The networks of excellence will be selected on the basis of calls for proposals.
Provision will be made for special measures to encourage the participation of SMEs.

Justification

There is a risk in the Commission's focus on research through large-scale projects that SMEs are excluded from the research programme. Special measures must, therefore, be introduced to facilitate access to the programmes for SMEs.

2. DETAILED RULES FOR FINANCIAL PARTICIPATION BY THE COMMUNITY

Amendment 42
Fifth paragraph

Financial participation by the Community will, as a general principle, be decided following open calls for proposals or invitation to tender procedures.

Financial participation by the Community will, as a general principle, be decided following open calls for proposals or invitation to tender procedures. ***The Joint Research Centre will be able to participate in these procedures without restriction.***

Justification

The amendment makes clear that the JRC can take part in invitations to tender under the research framework programme and that its funding is not confined solely to its own budget heading. Participation in tendering for contracts enables the JRC to stay in touch with other research establishments and to cater to the market.

18 September 2001

OPINION OF THE COMMITTEE ON THE ENVIRONMENT, PUBLIC HEALTH AND CONSUMER POLICY

for the Committee on Industry, External Trade, Research and Energy

on the proposal for a decision of the European Parliament and of the Council concerning the multiannual framework programme 2002-2006 of the European Community for research, technological development and demonstration activities aimed at contributing towards the creation of the European Research area
(COM(2001) 94 - C5-0087/2001 - 2001/0053(COD))

Draftsman: Peter Liese

PROCEDURE

The Committee on the Environment, Public Health and Consumer Policy appointed Peter Liese draftsman at its meeting of 11 April 2001.

It considered the draft opinion at its meetings of 28 August and 13 September 2001 .

At the last meeting it adopted the following conclusions by 46 votes to 0, with 1 abstention.

The following were present for the vote: Caroline F. Jackson, chairman; Guido Sacconi, Alexander de Roo, vice chairmen; Peter Liese, draftsman; María del Pilar Ayuso González, Hans Blokland, David Robert Bowe, John Bowis, Hiltrud Breyer, Philip Bushill-Matthews (for Martin Callanan), Dorette Corbey, Chris Davies, Avril Doyle, Anne Ferreira, Christel Fiebiger (for Roseline Vachetta), Karl-Heinz Florenz, Robert Goodwill, Françoise Grossetête, Cristina Gutiérrez Cortines, Anneli Hulthén, Marie Anne Isler Béguin, Hedwig Keppelhoff-Wiechert (for Cristina García-Orcóyen Tormo), Christa Klauf, Eija-Riitta Anneli Korhola, Hans Kronberger, Bernd Lange, Peter Liese, Giorgio Lisi (for Jorge Moreira da Silva), Torben Lund, Jules Maaten, Minerva Melpomeni Malliori, Maria Martens (for Giuseppe Nisticò), Pietro-Paolo Mennea (for Marit Paulsen), Emilia Franziska Müller, Rosemarie Müller, Riitta Myller, Karl Erik Olsson, Béatrice Patrie, Frédérique Ries, Dagmar Roth-Behrendt, Giacomo Santini, Karin Scheele, Renate Sommer (for Horst Schnellhardt), María Sornosa Martínez, Bart Staes (for Inger Schörling), Catherine Stihler, Antonios Trakatellis, Claude Turmes (for Jim Fitzsimons pursuant to Rule 166(3)), Kathleen Van Brempt (for Joaquim Vairinhos), Phillip Whitehead.

AMENDMENTS

The Committee on the Environment, Public Health and Consumer Policy calls on the Committee on Industry, External Trade, Research and Energy, as the committee responsible, to incorporate the following amendments in its report:

Text proposed by the Commission¹

Amendments by Parliament

Amendment 1 Recital -1 (new)

(-1) Article 2 of the Treaty gives the Community the overall objective of sustainable development.

Justification

The objective of sustainable development needs to be the overarching reference for the research framework programme.

Amendment 2 Recital 11

(11) Research activities carried out within the framework programme should respect fundamental ethical principles, notably those which appear in the Charter of Fundamental Rights of the European Union.

(11) Research activities carried out within the framework programme should respect fundamental ethical principles, notably those which appear in the Charter of Fundamental Rights of the European Union, ***as well as the principles contained in the Protocol on animal welfare agreed at Amsterdam and annexed to the Treaty.***

Justification

The Protocol on animal welfare agreed at Amsterdam and annexed to the Treaty places an obligation on the Commission and Council to pay full regard to the welfare of animals when formulating and implementing research policies.

Amendment 3 Article 3

All the research activities carried out under the framework programme 2002-2006 must

All the research activities carried out under the framework programme 2002-2006 must

¹ OJ C 180E, 26.6.2001, p. 156.

be carried out in compliance with fundamental ethical principles.

be carried out in **full** compliance with **relevant national laws, Community and international law**, with fundamental ethical principles **and with the objective of sustainable development**.

Justification

Reference to relevant national laws, Community and international law draws from Article 7 of Decision No. 182/1999/EC of the European Parliament and of the Council concerning the 5th framework programme (1998-2002). It is important to emphasise that sustainable development must be mainstreamed in all EU policy.

Amendment 4 Article 3a (new)

Article 3a

The framework programme shall be based on the obligation contained in Article 6 of the Amsterdam Treaty and on the Göteborg European Council conclusions on sustainability.

Justification

The environmental integration and sustainability principles must be applied in every field.

Amendment 5 Article 4

Progress with implementing the framework programme 2002-2006, and in particular progress towards achieving its objectives and meeting its priorities, shall be presented in detail in the report to be published by the Commission each year pursuant to Article 173 of the Treaty.

Progress with implementing the framework programme 2002-2006, and in particular progress towards achieving its objectives and meeting its priorities, shall be presented in detail in the report to be published by the Commission each year pursuant to Article 173 of the Treaty. ***In addition, the Commission shall lay down performance indicators and qualitative evaluation criteria, monitor achievement of results, and have an evaluation carried out by independent high-level experts of the activities funded by the Community under this programme in the third year (mid-term evaluation). The evaluations shall particularly assess the impact achieved and***

the efficiency of the use of resources. The evaluations shall also assess whether the activities implemented under this programme are consistent with and complement those measures and actions taken under other related Community programmes. At the latest 40 months after the entry into force of the Decision, the Commission shall submit a mid-term report evaluating the achievement of results to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions. The mid-term evaluation report shall be used as a basis for possible modifications, such as the changing of priorities for the remainder of the programme.

Justification

Given the enormous speed of scientific developments, there may already be a need after three years to adjust the programme and its priorities to new developments and/or needs.

Paragraph 1 also requires the Commission to lay down beforehand performance as well as qualitative evaluation criteria which are necessary for the selection and the evaluation of the various activities provided for under the programme. A mid-term evaluation is also provided for in the Commission proposal for a decision adopting a programme of Community action in the field of public health (2001-2006) [see COM(2000) 285, Article 11 and Amendment 77 adopted by Parliament at first reading (A5-0104/2001)].

Amendment 6 Article 5

Before submitting its proposal for the next framework programme, the Commission shall have an **assessment** carried out by independent high-level experts **of the implementation of Community activities** during the five years preceding that **assessment**. The Commission shall communicate the conclusions thereof, accompanied by its observations, to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions.

Before submitting its proposal for the next framework programme, the Commission shall have **a final evaluation, based on performance indicators and qualitative evaluation criteria laid down beforehand** and carried out by independent high-level experts, **of all the activities funded under this programme** during the five years preceding that **evaluation**. The Commission shall communicate the conclusions thereof, accompanied by its observations, to the European Parliament, the Council, the

Justification

The final evaluation should be based on performance indicators and qualitative criteria which should be laid down before the framework programme is implemented.

**ANNEX I: SCIENTIFIC AND TECHNOLOGICAL OBJECTIVES AND BROAD
LINES OF THE ACTIVITIES**

Amendment 7

Introductory part, paragraph 1, indent 4 (new)

***- promoting the principles of environmental
integration and sustainability.***

Justification

Takes account of the Cardiff and Gothenburg process.

Amendment 8

Introductory part, paragraph 4, indents

- in a limited number of priority thematic areas ***exclusively by means of strongly integrating and powerful*** instruments; networks *of* excellence, ***integrated*** projects and ***EU participation in national research programmes implemented jointly pursuant to Article 169 of the Treaty;***

- in areas related to the anticipation of EU science and technology needs in the form of

- in a limited number of priority thematic areas ***by additional integrating*** instruments, networks ***for*** excellence, ***integrating*** projects and ***the setting-up of joint undertakings pursuant to Article 171 of the Treaty;***

- as in the 5th Framework Programme for Research, ensuring that in the priority thematic areas project size and opportunities for participation are such that the effects of good-quality and innovative approaches are felt by smaller research establishments in particular;

- ensuring the coordination of projects in the various priority thematic areas in terms of content and material provision;

- in areas related to the anticipation of EU science and technology needs in the form of

certain specific needs of EU policies or new emerging needs;

- in the field of science and technology as a whole in the case of complementary research activities for SMEs.

certain specific needs of EU policies or new emerging needs;

- in the field of science and technology as a whole in the case of complementary research activities for SMEs.

- taking due account of social aspects, environmental conditions and technological options assessments. They are to be based on an integrated and transdisciplinary approach.

Justification

Smaller research establishments which have already undertaken good-quality projects under the 5th FP should continue to have an opportunity to do so.

Coordination between similar projects is essential.

An integrated approach will help foster sustainability

Amendment 9

Introductory part, paragraph 5, indent 1 a

- in addition to the priority thematic areas selected, special attention will be given to scientific problems posed by the internationally agreed development and poverty eradication targets in order to enable EU research partnerships with developing countries, including in health and sustainable development.

Justification

Self-explanatory

1. INTEGRATING EUROPEAN RESEARCH

1.1. Priority thematic areas of research

Amendment 10
Paragraph -1.1.1 (new)

Seven priority thematic areas have been selected.

Eight priority thematic areas have been selected.

- 1.1.1 Life sciences for medicine and public health

Objective

The objective of the measures in this field is to support research which assists the battle against serious diseases. Priority should be assigned to research efforts which one Member State alone cannot undertake or cannot undertake as efficiently as the European Union and which will directly benefit patients within the foreseeable future.

The measures in this field would also support policy orientated research. This would include, for example, research documenting trends in risk factors; research into the effectiveness of interventions to tackle inequalities in health; research into the reasons for survival differences in treatment outcomes; and health services research.

Justification of the effort and European added value:

Fighting serious diseases is a priority objective of the European Union. In recent years, the European Union's research programme has supported important initiatives which enjoy a high level of acceptance among the public and the scientists concerned. It is therefore worthwhile to continue these efforts.

In a whole range of areas, e.g. combating rare diseases and the field of children's diseases, it is often not possible for one Member State alone to carry out the

necessary research. Particularly in the case of clinical trials, large numbers of patients are needed. These can more readily be found on a European scale than if research is confined to a single Member State. Thus European added value clearly exists here.

Actions envisaged:

- combating cancer, degenerative diseases of the nervous system, other age-related diseases and cardiovascular diseases,*
- combating rare diseases,*
- efficient treatment of children's diseases,*
- research into ethically acceptable alternatives to technologies which are controversial within the Community and Member States, e.g. alternatives to experiments on animals and to embryo stem cell research and artificial insemination methods that could prevent the production of supernumerary embryos.*

A broad approach will be pursued with regard to combating the three poverty-linked infectious diseases (Aids, malaria and tuberculosis) which have priority in terms of disease control at EU and international level.

Justification

An additional priority (life sciences for medicine) should be inserted. The Commission wishes medical research to receive support primarily in cases where it is associated with genomics and genetic engineering. There is strong resistance to this among many researchers in Europe who perform valuable medical research which does not involve biotechnology or genomics but may still be of great value to patients. See also Explanatory Memorandum.

The diseases referred to in the Commission proposal in the field of "Genomics and biotechnology for health" partly reflect the priorities of the European Parliament in the field of health, but two further fields should be added:

- 1. Research into better therapies for children. This is important firstly because children are the most vulnerable members of society and efforts to improve their health deserve special support, and secondly because many children's syndromes are relatively rare, so that therapies for them have been less well researched than those for adults.*
- 2. Priority should be assigned to research which could replace applications which are controversial in the Member States and the EU. Examples include finding alternatives to tests on animals and promoting alternatives to the use of stem cells from embryos, i.e. both the use*

of adult stem cells and other approaches to the treatment of Parkinson's disease, diabetes and the like. Another example is cryopreservation of ova for artificial insemination, which in the long term could perhaps make it unnecessary to produce so-called superfluous human embryos..

1.1.1. Genomics and biotechnology for health

Amendment 11 Title and Subparagraph 1 and 2

Genomics and biotechnology *for health* **Objective**

The activities carried out in this area are intended to help Europe exploit, by means of an integrated research effort, breakthroughs achieved in decoding the genomes of living organisms, more particularly for the benefit of *public health and* citizens and to increase the competitiveness of the European biotechnology industry.

Justification of the effort and European added value

"Post-genomic" research based on analysis of the human genome and genomes of model (animal, plant and microbial) organisms, will culminate in numerous applications in various sectors, and notably in the development of new diagnostic tools and new treatments capable of helping to combat diseases that are not at present under control, offering major potential markets.

Genomics and biotechnology **Objective**

The activities carried out in this area are intended to help Europe exploit, by means of an integrated research effort, breakthroughs achieved in decoding the genomes of living organisms, more particularly for the benefit of citizens and to increase the competitiveness of the European biotechnology industry.

Justification of the effort and European added value

Progress in the field of genomics and biotechnology may yield numerous new applications both in medicine and in the fields of environmental protection and agriculture, as a result of which hitherto unsolved problems can be overcome.

Justification

Genomics and biotechnology should be retained as a priority, but not confined to health. Positive applications exist elsewhere too (see for example the opinion by Mr Sjöstedt on the future of the biotechnology industry)

This amendment is intended to make it clear that the possible benefits of genomics and biotechnology are not confined to medicine but also extend to the fields of environmental protection and agriculture. It should also be made clear that the main concern is solutions for problems which people face rather than potential markets.

Amendment 12
Subparagraph 3 'Actions envisaged', first point, subindent -1 a (new)

- animal and plant model species for post-genomic research

Justification

A major aim of this key action is to gain knowledge of plant genomics that will contribute to understanding the biology of the human genome: Plant and human genes are similar in structure, but sometimes very different in function. Their evolutionary distance uncovers gene functions and regulatory patterns in plants that are difficult or impossible to access in animals. Valuable, comparative information can thus be obtained on the human genome that can be used to understand major factors affecting human health. Many genes implicated in human disease conditions have high homology to Arabidopsis genes, a situation similar to the one observed in nematodes and other model organisms, which justifies the study of plants as model species.

Amendment 13
Subparagraph 3 “Actions envisaged”, second point, subindents

- Application of knowledge and technologies in the field of genomics and biotechnology for health:

- technological **platforms** for the development of new diagnostic, prevention and therapeutic tools;

- support for innovative research in genomics start-up companies;

- Application of knowledge and technologies in the field of genomics and biotechnology for health:

- technological **platform** for the development of new diagnostic, preventive and therapeutic tools (***the priority is preventing and curing diseases. Diagnostic tools will be supported primarily if they are directly linked to therapeutic efforts***);

- support for innovative research in genomics start-up companies;

- support will also be given to cytotherapy, including adult stem cell therapy;

- the cumulative effects of different authorised biotech and traditional pharmaceuticals which, acting on their own, may present no health risk but which

cumulatively may cause undesirable side-effects, allergies and toxicity.

Justification

Diagnostic tools should receive support only if they are directly linked to therapeutic efforts. A major investment in research into methods of diagnosis without parallel efforts in the field of therapy would result in the problematic situation that genetic causes of disease could be identified with great precision without it being possible to give the patient any practical assistance. While a precise diagnosis is generally required in order for therapy to be effective, in the case of many genetic disorders a diagnosis alone is of no use to patients.

Stem cell therapy is an important new field of medical research. Unlike the specific programme 'Integrating and strengthening the European Research Area', however, this field is not explicitly mentioned in the framework programme. Unlike research on embryonic stem cells, adult stem cell therapy has already reached the stage of affording patients practical benefit and it is supported unreservedly in all Member States.

Amendment 14

Subparagraph 3 'Actions envisaged', third point, subindents

- combating cancer, degenerative diseases of the nervous system, cardiovascular diseases and rare diseases;

- combating resistance to drugs;

- studying human development, the brain and the ageing process;

- a broader approach will be pursued with regard to combating the three poverty-linked infectious diseases (Aids, malaria and tuberculosis) which have priority in terms of disease control at EU and international level.

- combating cancer, degenerative diseases of the nervous system ***(including Alzheimer's Disease, Parkinson's Disease and experimental treatments now under investigation for new variant Creutzfeldt-Jakob Disease)***, and cardiovascular diseases;

- combating rare diseases;

- developing better therapies for children;

- combating resistance to drugs;

- studying human development, the brain and ***diseases relating to*** the ageing process;

- research into diabetes and diabetes related diseases;

- development of better therapies for the three poverty-linked infectious diseases (Aids, malaria and tuberculosis)

Justification

The recent scientific work reported in America on a possible remedy for victims of vCJD represented a key step forward in the treatment of this disease. Work of this nature should

therefore be included in the framework programme, as vCJD is now a malady which may be hidden in a number of Member States.

Special reference should be made to combating rare diseases, as it is obvious that only research at European rather than national level can yield the desired results in this case.

Better therapies for children should become a priority. See justification for Amendment 10.

The addition of the words "diseases related to" is made to limit the scope.

Diabetes is a growing health problem in Europe. In the course of just five to six years, the number of diabetics is expected to increase from 10 m to 20 m in the EU Member States. Support should therefore be given to a number of areas of research into diabetes, including cytotherapy, kidney research on diabetics, research into growth factors that could protect organs against serious secondary diseases.

The comprehensive approach with regard to the three poverty-linked infectious diseases mentioned should be listed as part of the new priority 'life sciences for medicine'.

1.1.2. Information Society technologies

Amendment 15

Subparagraph 3 "Actions envisaged", first point, first indent a (new)

- ***ways of preventing traffic thanks to the information society***

Justification

If correctly used, and on condition that the possibilities are specifically researched, modern information technologies could alleviate the problem of traffic growth and the associated emissions. Videoconferencing, for example, can take the place of flights. Information can be sent on-line rather than, at greater expense, on paper or other data carriers. Intelligent traffic management systems can help to prevent unnecessary traffic.

1.1.3. Nanotechnologies, intelligent materials, and new production processes

Amendment 16

Title

Nanotechnologies, intelligent materials,

Nanotechnologies, biomaterials and

and new production processes

medical engineering, intelligent materials, and new production processes

Justification

The use of nanotechnologies in medicine, i.e. biomaterials and medical engineering, ought to be a priority in its own right, as it is very important to the health of patients and because it is the fastest growing part of the biomedical industry. Europe possesses very promising potential in many relevant fields.

Amendment 17
Subparagraph 1 'Objective'

Objective

The activities carried out in this area are intended to help Europe achieve a critical mass of capacities needed to develop and exploit, especially for greater eco-efficiency, leading-edge technologies for the knowledge- and intelligence-based products, services and manufacturing processes of the years to come.

Objective

The activities carried out in this area are intended to help Europe achieve a critical mass of capacities needed to develop and exploit, especially for greater eco-efficiency ***and reduction of discharges of hazardous substances to the environment***, leading-edge technologies for the knowledge- and intelligence-based products, services and manufacturing processes of the years to come.

Justification

It is important to include activities that lead to reduction in discharges of hazardous substances to the environment, which is not necessarily achieved by greater eco-efficiency alone.

Amendment 18
Annex I, Section 1, Paragraph 1.1.3, Subparagraph 3 "Actions envisaged", first point
"Nanotechnologies", sixth indent

- applications in areas such as ***health***, chemistry, energy, optics and the environment.

- applications in areas such as chemistry, energy, optics and the environment.

Justification

Since health is a priority in its own right, it can be deleted here.

Amendment 19

Subparagraph 3 “Actions envisaged”, first point a (new) after "Nanotechnologies"

Biomaterials and medical engineering:

- hybrid-tissue engineering and artificial organs (including adult stem cells);***
- smart implants;***
- drug delivery systems;***
- new and improved biomaterials and bio-active coatings;***
- improvement of biocompatibility;***
- biomimetic materials.***

Justification

The Commission has already supported numerous very successful projects in this field in recent years. For example, projects involving adult stem cells have been financed, and these were successfully able to replace skin, bones, cartilage, tendons and soft parts. The Council and Parliament absolutely must make it clear that they continue to support such research.

Amendment 20

Subparagraph 3 'Actions envisaged', third point
New production processes

- the development of flexible and intelligent manufacturing systems incorporating advances in virtual manufacturing technologies, interactive decision-aid systems and high-precision engineering;
- systems research needed for waste management and hazard control

- the development of flexible and intelligent manufacturing systems incorporating advances in virtual manufacturing technologies, interactive decision-aid systems and high-precision engineering;
- systems research needed for ***non-polluting*** waste management and hazard control, ***giving priority to activities that minimise the generation of waste in general and hazardous waste in particular by e.g. minimising the use of hazardous substances in production and***

- development of new concepts optimising the life-cycle of industrial systems, products and services.

manufacturing processes;

- development of new concepts optimising the life-cycle of industrial systems, products and services ***and reducing their adverse impact on the environment and public health.***

Justification

Self-explanatory

1.1.4. Aeronautics and space

Amendment 21 Subparagraph 1 "Objective"

The aim of activities carried out in this area is two-fold: to consolidate, ***by integrating its research efforts,*** the position of ***the*** European ***aerospace*** industry vis-à-vis increasingly strong world competition; and to help exploit the potential of European research in this sector with a view to improving safety and environmental protection.

The aim of activities carried out in this area is two-fold: ***to integrate European aeronautics and the aeronautics industry in a modern, intermodal sustainable transport system and*** to consolidate the position of European industry vis-à-vis increasingly strong world competition, ***by combining research efforts;*** and to help exploit the potential of European research in this sector with a view to improving safety and environmental protection.

Justification

The aim is not only to strengthen and develop European industry but above all to integrate it into an intermodal global approach for the future, with due regard for environmental and social conditions.

Amendment 22 Subparagraph 3 “Actions envisaged”, first point, Aeronautics

Community aeronautical research activities will address research and technological development activities necessary to:

Community aeronautical research activities will address research and technological development activities necessary to:

- ***increase the competitiveness of the European industry with regard to commercial aircraft, engines and equipment;***
- reduce environmental nuisances and loads (CO₂ and NO_x emissions, noise);
- ***increasing*** aircraft safety in the context of the substantial rise in air traffic;
- increase the capacity and safety of the aviation system , in support of a “Single European Sky” (air traffic control and management systems).
- reduce environmental nuisances and loads (CO₂ and NO_x emissions, noise);
- ***increase*** aircraft safety in the context of the substantial rise in air traffic;
- increase the capacity and safety of the aviation system , in support of a “Single European Sky” (air traffic control and management systems);
- ***increase the competitiveness of the European industry with regard to commercial aircraft, engines and equipment;***
- ***integrate aeronautics in a sustainable transport system and strengthen the industry in the development of relevant innovative products, including improvement of engines and equipment and increasing their environmental compatibility;***
- ***integrate social and environmental impacts and take account of prospects for controlling and managing the strong growth in air transport.***
-
-

Justification

According to Commissioner Busquin, sustainable development is to be one of the hallmarks of the 6th Framework Programme of Research. The constant rise in emissions, especially carbon dioxide, from aviation is a serious problem. Reducing emissions should therefore be the top priority in this field.

The aim is not only to strengthen and develop European industry but above all to integrate it into a an intermodal global approach for the future, with due regard for environmental and social conditions.

1.1.5. Food safety and health risks

Amendment 23

Title and subparagraph 1

Food safety and health risks

Food **quality**, safety and health risk **and health improvement**

Objective

The activities carried out in this area are intended to help establish the integrated scientific and technological bases needed to develop a system of production and distribution of safe and healthy food and control food-related risks, **relying in particular on biotechnology tools**, as well as health risks associated with environmental changes.

Objective

The activities carried out in this area are intended to help establish the integrated scientific and technological bases needed to develop a system of production and distribution of safe and healthy food and control food-related risks as well as health risks associated with environmental changes.

Justification

There is no evidence that the "production (...) of safe and healthy food" should rely "in particular on biotechnology tools". In fact, existing Community law suggests exactly the opposite (see Regulation 258/97 ('novel food'), Directive 2001/18/EC ('GMO releases') and finally the proposal for a regulation of the European Parliament and of the Council on genetically modified food and feed, and the proposal for a regulation of the European Parliament and of the Council concerning traceability and labelling of genetically modified organisms and traceability of food and feed products produced from genetically modified organisms, both adopted by the Commission on 25 July 2001).

Amendment 24

Subparagraph 3 'Actions envisaged'

Community activities will cover research relating to various aspects of the control of health risks between health and food;

- methods of analysis and detection of chemical contaminants and pathogenic microorganisms (viruses, bacteria, parasites, and new agents of the prion type)

Community activities will cover research relating to various aspects of the control of health risks between health and food;

- methods of analysis and detection of chemical contaminants and pathogenic microorganisms (viruses, bacteria, parasites, and new agents of the prion type), **and in this regard, particularly the urgent need for the development and evaluation of reliable and more refined scientific methods and increased research into ante-mortem diagnostic tests for BSE and scrapie.**

- impact of animal feed, and the use of sub-products of different origins for that feed, on human health;

- "traceability" processes, in particular relating to genetically modified organisms, including those based on recent biotechnology developments;

- safer production methods and healthier foodstuffs, including those based on biotechnologies and on organic farming processes;

- epidemiology of food-related diseases **and genetic susceptibilities**;

- impact of food, and in particular products containing genetically modified organisms, on health;

- environmental health risks, with emphasis being placed on cumulative risks, transmission routes to human beings, long term effects and exposure to small doses, as well as the impact on particularly sensitive groups, and especially children.

- impact of animal feed, and the use of sub-products of different origins for that feed, on human health;

- "traceability" processes, in particular relating to genetically modified organisms, including those based on recent biotechnology developments;

- safer production methods and healthier foodstuffs, including those based on biotechnologies and on organic farming processes;

- epidemiology of food-related diseases

- the impact of diet on the health of children;

- impact of food, and in particular products containing genetically modified organisms, on health, **and methods for the analysis of causes of food-related allergies**;

- environmental health risks, with emphasis being placed on cumulative risks, **the cumulative effects of different authorised substances which, acting on their own, may present no health risk but which cumulatively may cause undesirable side-effects, allergies and toxicity**; transmission routes to human beings, long term effects and exposure to small doses, as well as the impact on particularly sensitive groups, and especially children.

- the healthy crop (factors and processes that affect the chemical composition of the plant, such as altered metabolism, plant-environment interactions and natural variation using genomics technologies on plants including Arabidopsis and model cereals, legumes and vegetables)

- effects of GMOs fed to animals in animal feedstuffs on the end product destined for human consumption

Justification

Here again, genetic engineering and biotechnology should not be limited. In most cases the

causes of dietary diseases are not genetic.

Because their constitution and metabolism differ from those of adults, children require an appropriate diet. Health risks associated with diet may have a particular impact on children because they are growing fast and because they consume more per kilo of body weight

As a growing number of patients, in particular, children suffer from food allergies, research into the causes of these allergies should be supported.

The aim of this key action "healthy crop" is to gain knowledge of biological research that will lead to the improvement of the quality of life through high-quality, safe and more nutritious food:

1. Genomics and post-genomics research produces a systematic definition of genes and their functions. The refinement of information thus gained through focused studies of selected model species provides an efficient route for the systematic transfer of knowledge to crop plants. This will have a major impact on agricultural and food improvement in the next decade and allow Europe to control the quality, safety and quantity of its own food production.

2. Concerted efforts towards understanding the mechanisms of plant growth and development are likely to provide the knowledge base required for improving plants to serve consumer needs while minimising the environmental impact of agriculture. A deeper understanding of biological processes will furthermore strongly increase international competitiveness of European biotechnology, agriculture and food industry.

1.1.6. Sustainable development and global change

Amendment 25
Subparagraph 1, 'Objective'

Objective

The activities carried out in this area are intended to strengthen the scientific and technological capacities needed for Europe to be able to implement sustainable development and make a significant contribution to the international efforts to understand and control global change and preserve the equilibrium of ecosystems.

Objective

The activities carried out in this area are intended to strengthen the scientific and technological capacities needed for Europe to be able to implement sustainable development, ***the Göteborg process, and the Sixth Environment Action Programme (covering climate change, biodiversity, environment and health, and natural resources and waste)*** and make a significant contribution to the international efforts to understand and control global change and preserve the equilibrium of ecosystems.

Justification

It is important to link together the different programmes on the environment. When planning research the aims set out in the Sixth Environment Action Programme will need to be taken into account.

Amendment 26

Subparagraph 2 'Justification of the effort and European added value', first part

Justification of the effort and European added value

The global implementation of sustainable development requires more particularly:

- the design, development and dissemination of technologies making it possible to ensure more rational use of natural resources, less waste production and a reduction in the impact of economic activity on the environment;

- a better understanding of the mechanisms of global change, and in particular climate change and our related forecasting capacities.

Justification of the effort and European added value

The global implementation of sustainable development requires more particularly:

- the design, development *of research into*, and dissemination of technologies making it possible to ensure *conservation and* more rational use of natural resources *and protection, conservation, and utilisation of historical and cultural heritage, (bearing in mind that this is a non-renewable resource)*, less waste *and in particular hazardous waste* production and a reduction in the impact of economic activity on the environment;

- a better understanding of the mechanisms of global change, and in particular climate change and our related forecasting capacities.

- *the development and dissemination of test methods and technologies to determine and reduce the effects of chemicals on humans and the environment. This includes the development and validation of non-animal testing methods, as well as the development of less hazardous substances, or processes and materials that reduce the need for hazardous substances.*

Justification

It should be pointed out that cultural heritage is a key resource to be tapped when developing the European model.

It is important to carry out further research on how chemicals are accumulated in the human

body and the environment. Further research also needs to be conducted into the effects of persistent chemicals and combinations of chemicals as well as low-level but long lasting exposure to these chemicals. In order to undertake this research, it is of utmost importance to develop test methods which do not require animal testing and to ensure that these test methods are validated as quickly as possible..

Amendment 27

Subparagraph 3 'Actions envisaged', first point '*Technologies for sustainable development*'

Technologies for sustainable development

The Community's effort in the short and medium term will concentrate on a limited number of ***large-scale*** actions in the following areas:

- renewable energy sources, energy savings and energy efficiency, especially in the urban environment, ***as well as clean transport, with the development of new vehicle concepts in particular for road transport, as well as the development of alternative motor fuels;***

Clean energy of the future

The Community's effort in the short and medium term will concentrate on a limited number of actions in the following areas:

- renewable energy sources, energy savings and energy efficiency, especially ***environmentally sound production and processing of renewable raw materials to replace fossil fuels and other raw materials which are in limited supply or damaging to the environment;***

- ***wind energy and wind turbine technology;***

- ***solar energy;***

- ***solar thermal power plants***

- ***innovative photovoltaic technologies;***

- ***geothermal energy;***

- ***biomass;***

- ***stationary fuel cells;***

- ***energy from the sea;***

- ***integration of renewable energy sources in network structures;***

- ***virtual power stations;***

- ***combined systems;***

- ***intelligent load management processes;***

- ***potential for increasing the use of, marketing and securing the position of regeneratively produced energy.***

Justification

In conjunction with Amendment 28. Energy and transport are two thematic areas that are important in their own right and are therefore dealt with in separate points, and in correspondingly greater detail.

Energy saving and energy efficiency are important in rural areas too. There is no justification for confining this topic to the urban environment.

Experts consider that the Commission proposal took too little account of this field. With the right technological development, renewable raw materials could do much to alleviate environmental problems and at the same time broaden the sources of income of European agriculture.

The latest knowledge of wind energy and wind turbine technology as sustainable energy sources should be specifically mentioned in the proposal. The development of such energy sources may in the longer term help mitigate the increasing changes in the global climate.

Amendment 28

Subparagraph 3 "Actions envisaged", second point "Sustainable transport of the future" (new)

Sustainable transport of the future

The Community's short- and medium-term efforts will be concentrated on a limited number of actions in the following areas:

- intelligent transport, especially in the form of technologies making possible a rebalancing as well as the integration and increasing intermodality of different modes of transport, for example by means of innovations in the management of the logistic chain (in particular containers). Turning to the longer term, activities will concentrate as a matter of priority on:***
- fuel cells for stationary applications and in transport;***
- hydrogen technology;***
- new concepts in solar photovoltaic technologies and advanced uses of biomass.***

- new systems for managing and controlling the growth in mobility and transport logistics;***
- development of effective fair pricing systems for all modes of transport (road, rail, inland waterway, sea, and air);***
- more effective techniques for reducing emissions, including of CO₂, and noise;***
- manufacturing of environment-friendly and recyclable vehicles;***
- alternative propulsion sources, such as fuel cells, hybrid vehicles or hydrogen technologies,***
- technologies for the production, storage and handling of hydrogen;***

- *new, environment-friendly production techniques;*
- *alternative fuels such as synthetic fuel produced from regenerative sources or regeneratively produced hydrogen*
- *integrated information, reservation, and pricing systems,*
- *car sharing*
- *integrated approaches to mobility;*
- *increased interoperability, e.g. as a result of innovations in management of the logistics chain;*
- *strategies for sustainable mobility of the future.*

Justification

In conjunction with Amendment 27. Energy and transport are two thematic areas that are important in their own right and are therefore to be dealt with in separate points, and in correspondingly greater detail.

In order for the use of hydrogen, an environmentally sound source of energy, to become widespread, a smooth functioning infrastructure must be developed to supply users with hydrogen. This necessitates support for the production, storage and handling of hydrogen.

Amendment 29

Subparagraph 3, 'Actions envisaged', point 2, 'Global change', indent 1

Community activities will address the following aspects as a matter of priority:

- impact and mechanisms of greenhouse gas emissions on climate and carbon sinks (oceans, forests and soil);

- water cycle;

- biodiversity, protection of genetic resources, operation of terrestrial and marine

Community activities will address the following aspects as a matter of priority:

- impact and mechanisms of greenhouse gas emissions on climate and carbon sinks (oceans, forests and soil);

water cycle;

- *the sea: ecological impact studies on aquaculture, overfishing, pollution, eutrophication of peripheral seas;*

- *new concepts for the sea: improvement of the quality of aquatic ecosystems;*

- biodiversity, protection of genetic resources, ***protection of all forms of genetic inheritance and cultural heritage***, operation of terrestrial and marine ecosystems and

ecosystems and interactions between human activities and the latter;

- mechanisms of desertification and natural disasters connected with climate change;
- global climate change observation systems.

interactions between human activities and *each of the above fields*; *in addition, support for research to develop environmentally efficient industrial processes to save water and energy and reduce waste*;

- improvement and use of biological resources for sustainable development (biological processes that lead to reduced inputs of materials such as fuel, fertilisers and pesticides, remediate environmental change, and optimise the use of limited resources such as water and soil);

- mechanisms of desertification and natural disasters connected with climate change;
- global climate change observation systems.

- environmental technologies: development of effective but low-cost technologies to fulfil existing environmental legislation and implement climate protection measures (e.g. purification of polluted waters, drinking-water purification, effective upgrading of facilities to reduce greenhouse gases and purify waste gas, waste treatment technologies, desertification);

- the cumulative effects of chemicals which individually may present no environmental or health risk but which cumulatively may have a negative impact on the wider environment, sustainable development and on health.

Justification

Given that Europe is anxious to protect genetic resources, it should be equally anxious to protect resources produced by human agency. Research aimed at protecting biodiversity and genetic resources (a matter of world-wide interest) will thus be complemented by scientific and technological research aimed at protecting cultural heritage, an important field in that it could help to consolidate a genuinely European identity at a time when Europe needs common points of reference in anticipation of enlargement. Furthermore, interactions with human activities are an essential point to consider in order to understand the evolution of all the fields mentioned in the indent. The reference to interaction should consequently not be

confined to terrestrial and marine ecosystems only

The current FP6 proposal does not place sufficient emphasis on biological resources for sustainable development.

The aim of this key action is to generate and exploit knowledge of biological systems to benefit the quality of life through protection and improvement of the environment, including the identification and conservation of biodiversity. Biological processes can lead to reduced inputs of materials (such as fuel and fertilisers), optimise the use of limited resources (such as water and soil) and can also remediate environmental change (carbon dioxide, toxic waste), as required by the Kyoto Protocol.

Amendment 30

Subparagraph 3, 'Actions envisaged', point 2 a (new) *'Preservation of the cultural heritage'*

"Preservation of the cultural heritage"

Conservation and utilisation of cultural heritage, in particular by developing and transferring innovative diagnostic, monitoring, and operations technologies (laser technologies, optoelectronics, illumination design, innovative conservation products) to enable cultural assets to be managed more efficiently;

Justification

The means must be provided to enable the EU's cultural heritage to be managed more efficiently.

1.1.7. Citizens and governance in the European knowledge-based society

Amendment 31

Subparagraph 3 "Actions envisaged", first point, third indent a (new)

- ***sociological research in support of sustainable development.***

Justification

Sustainable development is a challenge not only to the natural sciences but to the social sciences too. It is necessary to research how the public and decision-makers can be induced to take account of sustainability as a principle in all areas of life.

Amendment 32

Subparagraph 3, 'Actions envisaged', second point, '*Citizenship, democracy and new forms of governance*', indent 4 a (new)

– city and spatial management to conserve cultural and natural resources.

Justification

Self-explanatory

1.2 Anticipating the EU's scientific and technological needs

1.2.1. Activities carried out on the basis of calls of proposals

Amendment 33

Subparagraph 1

These will cover two non-exclusive categories of research:

– research necessary for the formulation, implementation and enforcement of Community and EU policies:

– research in support of the implementation of common policies such as the common agricultural policy and the common fisheries policy;

These will cover two non-exclusive categories of research:

– research necessary for the formulation, implementation and enforcement of Community and EU policies:

– research in support of EU policy objectives such as, for example, those set out in the 6th Environment Programme and Directive 86/609 on the reduction in the number of animals used for experimental purposes;

– research into alternatives to technologies and applications giving rise to controversy in the Community and/or Member States, including for example research in support of the development and validation of alternative non-animal testing procedures

– research in support of EU policy objectives such as, for example, those set out in the 6th Environment Programme and the Green Paper “Towards a European Strategy for the Security of Energy Supply”;

– research in support of the objectives set for the EU by the European Council, for example the objectives set by the Lisbon and Feira European Councils with regard to economic policy, Information Society and e-Europe, enterprise, social policy and employment, education and training, including the requisite statistical methods and tools;

– research necessary for other Community or EU policies in areas such as, for example, health, in particular public health, regional development, trade, external relations and development aid or justice and home affairs;

for both chemicals and biologicals and research targeted specifically at the replacement of animal-based testing in support of the EU Chemical Strategy and the Cosmetics Directive, alternatives to research using embryonal stem cells and artificial fertilisation methods to prevent superfluous embryos being produced;

– research necessary for other Community or EU policies in areas such as, for example, health, in particular public health, regional development, trade, external relations and development aid or justice and home affairs;

– research in support of the implementation of common policies such as the common agricultural policy and the common fisheries policy;

deleted

– research in policy fields which the European Parliament and the Council consider to have priority, like the objectives set by the Cardiff and Göteborg European Councils with regard to integration of the environment into policy as a whole and to sustainable development;

Justification

The implementation of the environmental action programme is a leading priority of the European Parliament. This point should therefore appear at the top of the list. Research with a view to the realisation of the objectives of the Lisbon and Feira European Councils is adequately covered in the priority fields, e.g. the information society. Accordingly, there is no need to mention this aspect again here. The information society is the priority which requires by far the most funding. It is therefore important to fund other policies as well from activity field 1.2. The paragraph to be deleted also discriminates against the European Parliament in favour of the Council. Parliament cannot accept that a programme which is subject to codecision should be used primarily to finance measures adopted by the European Council without any involvement of Parliament.

This part of the text should also mention research into ethically unobjectionable technologies, for example alternatives to animal experiments.

The principles calling for the environment to be integrated into policy as a whole and for sustainability must invariably be applied.

Amendment 34
Subparagraph 2, second indent

- | | |
|--|--|
| <p>- The choice of research topics, areas and subjects will be made by the Commission on the basis of assessment by an internal group of users, taking account of the opinion of an independent consultative body made up of high-level scientific and industrial experts.</p> | <p>- The choice of research topics, areas and subjects will be made by the Commission on the basis of assessment by an internal group of users, <i>in close consultation with the European Parliament and the Council</i>, taking account of the opinion of an independent consultative body made up of high-level scientific NGO and industrial experts.</p> |
|--|--|

Justification

In deciding on research fields and topics, the Commission should consult the European Parliament and the Council. The future science and technology needs of the European Union cannot be determined by the Commission alone.

NGOs need to be included in the independent consultative body.

1.2.2. Joint Research Centre activities

Amendment 35
Subparagraph 5, indent 2

- | | |
|--|--|
| <p>– Environment and sustainability:
Climate change (carbon cycle, modelling, impacts) and technologies for sustainable development (renewable energy sources, tools for the integration of policies); protection of the European environment; development of reference measurements</p> | <p>– Environment and sustainability:
Climate change (carbon cycle, modelling, impacts) and technologies for sustainable development (renewable energy sources, tools for the integration of policies); <i>improvement of air quality</i>; protection of the European environment; development of reference measurements and networks;</p> |
|--|--|

and networks; technical support for the objectives of GMES.

technical support for the objectives of GMES.

Justification

Necessary addition.

Amendment 36 Subparagraph 6, indent 2

- Reference materials and measurements:
The Community Reference Bureau (BCR) and certified reference materials: validation and qualification of chemical measurement methods.

- Reference materials and measurements:
The Community Reference Bureau (BCR) and certified reference materials: validation and qualification of chemical measurement methods. ***Research in support of the development and validation of alternative non-animal testing procedures for chemicals.***

Justification

In the debate surrounding the 7th Amendment to the Cosmetics Directive and in the White Paper on a new EU Chemicals Policy, the Commission referred to the need to foster research on development and validation of alternative methods. Specific EU funding is needed for this research and must be included in the 6th Programme.

2.4. Science/society

Amendment 37 Subparagraph 1

Objective

The activities carried out under this heading are intended to encourage the development of harmonious relations between science and society and the opening-up of innovation in Europe as a result of the establishment of new relations and an informed dialogue between

Objective

The activities carried out under this heading are intended to encourage the development of harmonious relations between science and society and the opening-up of ***society to*** innovation in Europe, ***as well as contributing to critical thinking by scientists in response to***

researchers, industrialists, political decision-makers and citizens.

concerns in society, as a result of the establishment of new relations and an informed dialogue between researchers, industrialists, political decision-makers, **major social groups** and citizens.

Justification

It is important that society should be open to innovation, but equally important that scientists should be responsive to public concern in a spirit of self-criticism. Major social groups should participate in the dialogue.

Amendment 38 Subparagraph 2

Justification of the effort and European added value

Science/society issues need **to a large extent** to be addressed at European level on account of their strong European dimension. This is bound up with the fact that very often they arise on a European scale (as the example of food safety problems shows), with the importance of being able to benefit from the often complementary experience and knowledge required in the different countries and with the need to take into account the variety of views on them, which reflects European cultural diversity.

Justification of the effort and European added value

Science/society issues **also** need to be addressed at European level on account of their strong European dimension. This is bound up with the fact that very often they arise on a European scale (as the example of food safety problems shows), with the importance of being able to benefit from the often complementary experience and knowledge required in the different countries and with the need to take into account the variety of views on them, which reflects European cultural diversity.

Justification

An important part of this dialogue should certainly take place at the level of the Member States and regions. The expression 'to a large extent' gives the impression that a dialogue at European level could take the place of the dialogue between scientists and society on the ground in the Member States.

Amendment 39 Subparagraph 3 "Actions envisaged", indent 5

- *Bringing research closer to society* :
Science and governance; scientific advice;

- *Bringing research closer to society* :
Science and governance; scientific advice;

involvement of society in research;
foresight;

- Ensuring that use of scientific and technological progress takes place in a responsible fashion: risk; expertise; **implementing the precautionary principle**; European reference system; **ethics**;

- Stepping up the science/society dialogue: new forms of dialogue; knowledge of science by citizens; young people's interest in scientific careers; women in science and research.

involvement of society in research;
foresight;

A contribution is to be made to ensuring that political decisions respond better to society's needs and that these are based on scientific findings.

- Analysis and encouragement of good practice in the application of the precautionary principle in various fields of political decision-making and in the assessment, overcoming and publication of uncertainties and risks.

- Ensuring that use of scientific and technological progress takes place in **an ethically** responsible fashion: risk; expertise; European reference system;

This is intended to ensure that the rapid progress of science accords with the ethical values of the majority of people in Europe.

- Stepping up the science/society dialogue: new forms of dialogue **with the participation of environmental associations, patients' organisations and religious communities**; knowledge of science by citizens; young people's interest in scientific careers; women in science and research.

Justification

The additional paragraphs under the indents are intended to make it clearer what the exact objective of the action is.

The precautionary principle and ethics are major priorities of the European Parliament; therefore they should each be mentioned in a separate indent. The rapporteur's proposals are largely based on the proposals by the Commission for the specific research programme (cf. p. 114 of the specific programmes implementing the Framework Programme 2002-2006 for research, technological development and demonstration activities as a contribution to the European Research Area).

In the specific programme, the Commission states that it is necessary to ensure that the rapid progress of science accords with the ethical values of all Europeans. The rapporteur does not consider this realistic, as there are extreme groups which reject all scientific research and to

which, therefore, all research is incompatible with ethical principles. However, the aim should be to ensure that research is compatible with the ethical principles of most Europeans. In other words, if a technology meets with fundamental resistance from a large section of the public, the population group's objections must be taken into account

Specific mention should be made of important groups within civil society in this point.

Amendment 40

Subparagraph 3 "Actions envisaged", second point "*They will take the form of activities in support of:*"

They will take the form of activities in support of:

- networking and establishment of structural links between the institutions and activities concerned at national, regional and European level;
- exchange of experience and good practice;

- carrying out specific research;
- high-profile awareness-raising initiatives such as prizes and competitions;
- establishing data and information bases and carrying out studies, in particular statistical and methodological studies, on the different themes.

They will take the form of activities in support of:

- networking and establishment of structural links between the institutions and activities concerned at national, regional and European level;
- exchange of experience and good practice;
- ***creation of networks of existing ethics groups and activities in Europe and encouragement of dialogue concerning ethical issues in research with other regions of the world;***
- ***fostering awareness and educational activities regarding ethical issues, coordination and development of codes of conduct for research activities and technological development;***
- ***research in the field of ethics in science in the context of technological development and its applications, for example in the information society, nanotechnologies and human genetics and biomedical research and in food technology.***

- carrying out specific research;
- high-profile awareness-raising initiatives such as prizes and competitions;
- establishing data and information bases and carrying out studies, in particular statistical and methodological studies, on the different themes.

Those taking part in the projects should

act in accordance with the principles listed at the end of Annex I and seek to put these principles into practice.

Justification

The Commission proposed this text in the specific programme. In order to stress the importance of ethics, it should be inserted in the framework programme

This amendment is also intended to ensure that this part of the framework programme is not used to finance any 'ethics experts' who call into question fundamental principles of the European Union. So-called 'ethics experts' who propagate racist ideas, eugenic measures or the killing of people with disabilities should not receive funding under this programme..

Amendment 41

Annex I, final paragraph (new)

Fundamental ethical principles

When implementing this programme and research activities under it, certain fundamental ethical principles must be observed, for instance protection of human dignity, of data, and privacy, and of animals and the environment. The necessary framework is provided by Community law, for example the Protocol on protection and welfare of animals, annexed to the Treaty of Amsterdam, the relevant international agreements and codes of conduct, such as the Declaration of Helsinki (1996 version), the Council of Europe Convention on Human Rights and Biomedicine, the Unesco Universal Declaration on the Human Genome and Human Rights, and the laws and administrative provisions of the countries where research is performed. Where the case arises, participants in research projects must obtain the approval of the appropriate ethics committee before embarking on R&TD projects. If proposals relate to sensitive subjects, systematic ethical reviews will be carried out. In individual cases, the ethical review may also be conducted while the project is being implemented.

The cloning of human beings for reproductive purposes shall not receive funding under this framework programme. No research shall be carried out which is intended to result in an alteration to the human germ line. The same applies to any research which involves creating a human embryo for research or therapeutic purposes, and to other types of research in which use is made of embryos. Altering the genetic makeup of animals and cloning of animals may be considered only if the aims are ethically justified and the conditions are such that the animals' welfare is guaranteed and the principles of biodiversity are respected.

No funding will be given under this framework programme to research involving cells derived from human embryos created for research or therapeutic purposes, research involving the use of human embryos where such use will lead to the destruction of embryos or research involving animal experiments, whenever such experiments are avoidable;

Justification

Unlike the 5th Framework Programme, the proposal for the 6th does not contain any comments on the ethical limits to research. Yet in its proposal for the specific programme to integrate and strengthen the European Research Area, the Commission has much to say on the subject. The rapporteur proposes incorporating its observations in the framework programme (see Explanatory Memorandum).

This proposal is also largely based on the Commission document on the specific programme. However, the rapporteur proposes certain changes:

- 1. The formulation concerning alteration of the human germ line should be such as to avoid excluding radiotherapy and chemotherapy to treat cancers of the germ cells.*
- 2. The formulation concerning the production of human embryos for research purposes should be extended so as also to exclude research using existing embryos if they will be destroyed in the course of the research. Such research is illegal in four Member States and in certain applicant countries and has repeatedly been rejected by the European Parliament, and should therefore be funded from national rather than European tax revenue, if at all.*

Last paragraph excludes research activities which would lead to the destruction of embryos not covered by the text so far, i.e. embryos created for purposes other than research or therapeutic purposes. Research activities on those 'surplus' embryos should not be funded

with Community money, as they are banned in several Member States and as Member States are currently discussing the option of allowing for the adoption of such embryos by infertile couples.

ANNEX II: MAXIMUM OVERALL AMOUNT, RESPECTIVE SHARES AND INDICATIVE BREAKDOWN

Amendment 42
Commission proposal

The maximum overall financial amount and the respective shares of the various activities as referred to in Article 164 of the EC Treaty are as follows:

	EUR million
First activity ¹ :	13 570
Second activity ² :	600
Third activity ³ :	300
Fourth activity ⁴ :	1 800
Maximum overall amount*	16 270
*Indicative breakdown :	
1) Integrating research^{5 6}	12 770
• Genomics and biotechnology for health	2 000
• Information Society technologies	3 600
• Nanotechnologies, intelligent materials, new production processes	1 300
• Aeronautics and space	1 000
• Food safety and health risks	600
• Sustainable development and global change	1 700
• Citizens and governance in the European knowledge-based society	225
• Anticipating the EU's scientific and technological needs ⁷	2 345
2) Structuring the European Research Area	3 050
• Research and innovation	300
• Human resources	1 800
• Research infrastructures	900
• Science/society	50
3) Strengthening the foundations of the European Research Area	450
• Support for the coordination of activities	400
• Support for the coherent development of policies	50
TOTAL	16 270⁸

¹ Covering the activities carried out under the heading "Integrating research", with the exception of international cooperation activities; research infrastructures, and the theme "Science/Society" carried out under the heading "Structuring the European Research Area"; and activities carried out under the heading "Strengthening the foundations of European Research Area".

² Covering the international cooperation activities carried out under the heading "Integrating research", in the priority areas and under the heading of anticipating the EU's scientific and technological needs.

³ Covering the specific activities on the theme "Research and innovation" carried out under the heading "Structuring the European Research Area" in addition to innovation activities carried out under the heading "Integrating research".

⁴ Covering the activities concerning human resources and support for mobility carried out under the heading "Structuring the European Research Area".

⁵ The aim is to allocate at least 15% of the financial resources assigned to this heading to SMEs.

⁶ Including EUR 600 million in total for international cooperation activities.

⁷ Including EUR 715 million for JRC activities.

⁸ To which should be added the sum of EUR 1,230 million under the Euratom Framework Programme, broken down indicatively as follows: Treatment and storage of nuclear waste EUR 150 million; Controlled thermonuclear fusion EUR 700 million [of which EUR 200 million is foreseen for participation in the ITER project]; other activities EUR 50 million; JRC activities EUR 330 million [of which EUR 110 million for the treatment and storage of waste].

Amendment by Parliament

The maximum overall financial amount and the respective shares of the various activities as referred to in Article 164 of the EC Treaty are as follows:

	EUR million
First activity ¹ :	14 245
Second activity ² :	600
Third activity ³ :	300
Fourth activity ⁴ :	1 800
Maximum overall amount*	16 945
*Indicative breakdown :	
1) Integrating research^{5 6}	13 370
• Life sciences for medicine	1 100
• Genomics and biotechnology for health	1 200
• Information Society technologies	3 200
• Nanotechnologies, intelligent materials, new production processes	1 300
• Aeronautics and space	1 000
• Food safety and health risks	800
• Sustainable development and global change	2 200
• Citizens and governance in the European knowledge-based society	225
• Anticipating the EU's scientific and technological needs ⁷	2 345
2) Structuring the European Research Area	3 125
• Research and innovation	300
• Human resources	1 800
• Research infrastructures	900
• Science/society	125
3) Strengthening the foundations of the European Research Area	450
• Support for the coordination of activities	400
• Support for the coherent development of policies	50
TOTAL	16 945⁸

¹ Covering the activities carried out under the heading "Integrating research", with the exception of international cooperation activities; research infrastructures, and the theme "Science/Society" carried out under the heading "Structuring the European Research Area"; and activities carried out under the heading "Strengthening the foundations of European Research Area".

² Covering the international cooperation activities carried out under the heading "Integrating research", in the priority areas and under the heading of anticipating the EU's scientific and technological needs.

³ Covering the specific activities on the theme "Research and innovation" carried out under the heading "Structuring the European Research Area" in addition to innovation activities carried out under the heading "Integrating research".

⁴ Covering the activities concerning human resources and support for mobility carried out under the heading "Structuring the European Research Area".

⁵ The aim is to allocate at least 15% of the financial resources assigned to this heading to SMEs.

⁶ Including EUR 600 million in total for international cooperation activities.

⁷ Including EUR 715 million for JRC activities.

⁸ To which should be added the sum of EUR 1,230 million under the Euratom Framework Programme, broken down indicatively as follows: Treatment and storage of nuclear waste EUR 150 million; Controlled

Justification

The insertion of a new priority, 'Life sciences for medicine', will make it necessary to reduce the allocations to other priorities. Since the fields 'Genomics, biotechnology and life sciences for health/medicine' overlap, a moderate reduction in the fields of genomics and biomedicine is justified. The field 'Information society technologies' is to receive by far the greatest amount of funding according to the Commission proposal. A moderate redistribution in favour of other priorities seems defensible. Sustainable development is intended to be a hallmark of the 6th Framework Programme, and a substantial increase in funding is therefore required.

Sustainable development, food safety, and science and society are prime examples of areas in which there is a great need for research.

The important field 'science/society', which includes research into the precautionary principle and ethical aspects, has been seriously neglected by the Commission, which proposes only EUR 50 m for it. Accordingly, an increase is proposed.

ANNEX III: INSTRUMENTS AND DETAILED RULES FOR COMMUNITY FINANCIAL PARTICIPATION

1. INSTRUMENTS

Amendment 43 Paragraph 1.1.2 a (new)

1.1.2a. Stairway of excellence

In the priority thematic areas of research of the framework programme, financial contribution to projects falling within the scope of the stairway of excellence

If the European Research Area is to be brought into being, efforts will have to be pooled in the European policy for research and technological development. That being the case, European added value should be measured, and the bulk of Europe's research defined, according to the three essential yardsticks of excellence, critical mass, and the ground-breaking character of a project, as well as the quality of the results. Efforts will focus on projects and

thermonuclear fusion EUR 700 million [of which EUR 200 million is foreseen for participation in the ITER project]; other activities EUR 50 million; JRC activities EUR 330 million [of which EUR 110 million for the treatment and storage of waste].

forms of cooperation which, having fully satisfied the criteria, offer the best prospects of success.

As well as focusing efforts in the manner described above, additional efforts will be made to identify subfields or research projects within the priority thematic areas and partners in the research community who deserve to be encouraged to rise to the requisite degrees of excellence, critical mass, and opportunity which they have not yet attained. In cases of this kind, the other three new instruments will not always be possible or appropriate to apply directly. The means to be employed in such cases, where the need has been duly shown to exist, will therefore be the range of tools provided under the fifth framework programme for indirect research actions, subject to the same financial conditions for participation. These tools are: shared-cost projects, support affording access to research infrastructures, technology-stimulation projects to encourage and facilitate SME participation in research and technological development activities, 'Marie Curie' training grants, support for networks, concerted research projects, and accompanying measures.

This instrument must be used in a flexible way and establish arrangements affording scope for new and small-scale participants with innovative research projects, and the potential to attain the critical mass criterion, and centres of excellence. In addition, the stairway of excellence must accommodate: (a) research centres not included in the networks of excellence, (b) initiatives proposed by precompetitive research teams, (c) SMEs, and (d) projects that could form the basis of future networks to enable regions sharing similar problems and candidate countries to be incorporated into the European Research Area.

The projects in question should be consistent with and, wherever possible,

linked to the priority thematic areas of the framework programme.

Justification

It is absolutely essential to work on a European scale, given that many small research teams are of high calibre. Furthermore, to allow space for SMEs and the candidate countries, a place must be found within the programme for high-quality small-scale innovative initiatives. This, moreover, will open the way for precompetitive groups and centres which to date have not participated in European programmes, thereby providing new avenues enabling them to enter spheres of excellence. The opportunities to take part in the programme should also be widened to include research centres and teams scattered throughout EU territory so as to offset the centralisation of management that the other instruments will tend to encourage.

Amendment 44
Paragraph 1.1.3 a (new)

Smaller research establishments

Small projects and research establishments have in many cases generated vital impetus, helping to achieve EU aims and to consolidate the European Research Area. Proceeding along lines similar to the arrangements which have proved their worth under the fifth research framework programme, the opportunities to participate and project sizes will be organised in such a way as to ensure that smaller enterprises, research establishments, and university institutes in particular can continue in the future to make high-quality innovative contributions. In addition, access will continue to be promoted using the instruments already employed to good effect under the fifth programme. In formal and substantive terms it will be ensured that the thematic areas are coordinated specifically where the projects in question are concerned.

Justification

Those smaller research establishments which have already carried out good projects under the fifth framework programme should continue to have the opportunity to do so. That is why a new instrument is being introduced.

SHORT JUSTIFICATION

The proposed EUR 17.5 billion of funding makes the Framework Programme for Research the biggest single budget heading managed directly by the Commission, and the legislation concerning this programme is therefore of particular importance. Your draftsman is working on the assumption that the Committee on the Environment, Public Health and Consumer Policy favours a well-funded and active EU research policy, as it has in recent years very often called for a stepping-up of the research effort in various fields.

The committee considers the following priority thematic areas of the proposed framework programme to be particularly important: Genomics and biotechnology for health (Annex I, Section 1, paragraph 1.1.1), Food safety and health risks (Annex I, Section 1, paragraph 1.1.5) and Sustainable development and global change (Annex I, Section 1, paragraph 1.1.6).

Environmental, health or consumer protection aspects are, however, to be found in virtually every area of the Commission proposal.

One problem with the **proposal** is that it is **very concise** and, in places, **very vague**. On its own, it barely indicates what activities the Commission intends to fund over the next few years. The five proposals for specific programmes that have now been presented are, however, very important in this connection, as they supply very much more information about the measures planned. But, since **Parliament has a say only in shaping the framework programme under the codecision procedure** (the specific programmes are adopted by the Council after consulting Parliament), the framework programme needs to be more specific and more detailed if the intention is to influence Commission practices.

The main amendments proposed by your draftsman:

1. Boosting research to improve health

Medical research is included in a number of places in the research programme, but much of the research needed to improve human health is either not provided for or not given enough prominence. Your draftsman is therefore proposing the following amendments:

(a) Introduction of an additional priority: 'Life sciences for health'

The Commission is proposing a priority entitled 'Genomics and biotechnology for health'. Medical research will thus primarily receive support where it is associated with genomics and biotechnology. Although genetic technology and biotechnology will in all probability make an important contribution to improving health and fighting serious diseases over the next few decades, it is firstly not certain where breakthroughs if any will be made and, secondly, success will often take a long time to achieve. However, those suffering from diseases now and in the next few years must also be helped.

(b) A separate subparagraph on medicine under the heading on nanotechnologies

Medicine is mentioned only once under this heading, although it is precisely in this area that there is great potential and that the Commission has already successfully supported projects in recent years.

2. Strengthening the sustainable development aspect

According to Commissioner Busquin, sustainable development is to be a trademark of the 6th Framework Programme. The Commission proposal provides a very important and sound basis in this respect. Your draftsman takes the view, however, that this aspect can be given even greater prominence and is therefore proposing the following amendments:

1. Increased funding for priority 1.1.6 'Sustainable development and global change'.
2. Clearer emphasis on the sustainable development aspect in other priority areas, e.g. aeronautics, IT, social sciences and humanities, and in the area of the eighth priority

concerning research with a view to meeting the EU's future technological needs.

3. Strengthening the precautionary principle and ethics

According to one critic 'ethical considerations have vanished from the 6th Framework Programme. Whereas the 5th Framework Programme contained numerous references to supporting the dialogue on ethics and ethical limits to research, the 6th Framework Programme devotes just one word to this whole area. The situation is even worse as regards the **precautionary principle**, for this important principle **is not mentioned even once in the whole Commission proposal**. This does not mean, however, that the Commission does not attach any value to this aspect, as closer examination of the specific programmes reveals very important references. Your draftsman therefore proposes **incorporating passages from the specific programmes into the framework programme** in order to emphasise the significance of the precautionary principle and ethics. This must also be done in order to ensure that important Commission statements and proposals concerning the relevant fields, e.g. animal welfare, environmental protection and the protection of human dignity, data and privacy, cannot be watered down by the Council during the procedure without Parliament having a say.

There is bound to be controversy concerning **human cloning and embryo stem cell research**. In the specific programme, the Commission proposes giving human cloning for reproductive purposes just as little support as research into the modification of the human germ line and research activities involving the production of human embryos for research or therapeutic purposes. This key precept, which is also a feature of the 5th Framework Programme, ought not to be controversial. Furthermore, your draftsman is also proposing that research using **supernumerary human embryos** produced for in-vitro fertilisation but no longer to be used for that purpose should not be eligible for funding. Destructive embryo research is prohibited in four EU Member States and in some applicant countries and has been rejected by Parliament on several occasions. The issue of whether there can be a uniform European of rules in this area is the subject of heated debate, as there are cultural and even constitutional differences regarding such research. The **principle of subsidiarity** could therefore result in Europe not having a uniform set of rules. When it comes to the funding of research, the subsidiarity principle must, however, be applied in reverse: **research which is not regarded by all, or at least nearly all, Member States as being worthwhile and ethically sound should not be funded out of Community revenue**. This does not mean that Parliament can prohibit such research throughout Europe. What it does mean, though, is that research conducted in those countries where it is legal must be funded from national taxes. **Research using adult stem cells** should receive Parliament's express support. Unlike embryo stem cell research, it has already yielded successes with regard to the treatment of people suffering from specific conditions. It is at present not possible to say whether all applications for which the use of embryo stem cells is envisaged can also be performed using adult stem cells, but neither can embryo stem cell research guarantee that every promise will be fulfilled. Concentration on the use of adult stem cells is therefore a sound option and, in your draftsman's opinion, a must from an ethical point of view.

19 September 2001

OPINION OF THE COMMITTEE ON AGRICULTURE AND RURAL DEVELOPMENT

for the Committee on Industry, External Trade, Research and Energy

on the proposal for a decision of the European Parliament and of the Council concerning the multiannual framework programme 2002-2006 of the European Community for research, technological development and demonstration activities aimed at contributing towards the creation of the European research area
(COM(2001) 94 – C5-0087/2001 – 2001/0053(COD))

Draftsman: Encarnación Redondo Jiménez

PROCEDURE

The Committee on Agriculture and Rural Development appointed Encarnación Redondo Jiménez draftsman at its meeting of 10 July 2001.

It considered the draft opinion at its meetings of 12 September 2001 and 18 September 2001.

At the latter meeting it adopted the following amendments by 22 votes, with 2 abstentions.

The following were present for the vote: Friedrich-Wilhelm Graefe zu Baringdorf, chairman; Joseph Daul, vice-chairman; Encarnación Redondo Jiménez, draftsman (replaced by Carmen Fraga Estévez); Danielle Auroi, Carlos Bautista Ojeda, Arlindo Cunha, Avril Doyle, (for Struan Stevenson), Francesco Fiori, Georges Garot, Lutz Goepel, Willi Görlach, Elisabeth Jeggle, Salvador Jové Peres, Hedwig Keppelhoff-Wiechert, Heinz Kindermann, Christa Klauf (for Neil Parish), Astrid Lulling (for Michl Ebner), Albert Jan Maat, Xaver Mayer, Mikko Pesälä, María Rodríguez Ramos, Agnes Schierhuber, Dominique F.C. Souchet and Robert William Sturdy.

SHORT JUSTIFICATION

Innovations in the structure and content of the sixth framework programme

The Commission proposal is intended to be a strategic instrument for planning the Union's scientific and technological research, as well as a specific blueprint for integrating and structuring the European Research Area (ERA). Seen in this light, it is an ambitious proposal containing interesting innovations. These include in particular: (a) focusing efforts on *eight thematic areas*; (b) the proposal for *three specific programmes* implementing the framework programme (COM(2001) 279), on which Parliament will be consulted in due course; and (c) the introduction of *new management instruments*.

Against this background, Parliament must take a realistic approach as regards the amendments it tables and seek to be as consistent and effective as possible during the painstaking negotiations that will be held as part of the co-decision procedure. Accordingly, the amendments by the Committee on Agriculture and Rural Development should draw on the excellent work already carried out by the rapporteur in cooperation with the Commission and the Swedish and Belgian presidencies. Your draftsman therefore proposes that the framework provided by the rapporteur's 108 amendments (PE 302.148/FIN. – PR\434214PA) should be endorsed, while seeking to include the priorities for the European agricultural model and the reform of the CAP. Similarly, given the threat that the Council may seek to reduce the overall allocation for the programme, it would be wiser not to increase this amount on condition that it is reallocated internally when the final decision is taken, taking into account the needs of agricultural research.

In short, the amendments proposed by the rapporteur and which are taken over in this opinion concern (1) breaking down the first target, *integrating European research*, into three specific programmes ('Bio', 'Techno' and 'Info') in order to improve transparency and management; (2) under the *Bio* programme, converting *health and safety* into a thematic area, with the result that *genomics and biotechnology* no longer relate exclusively to health, but bring together all research actions (including those relating to *food and agriculture*); (3) creating a fourth management instrument, the '*stairway of excellence*'; (4) improving *ex-post* evaluation processes.

Agricultural research under the framework programme – substance of the amendments tabled

In addition to the above considerations, it should be stressed that the proposal fails to mention the conclusions of the Versailles Conference on '*Agricultural research in the European research area (ERA)*' held in December 2000 under the auspices of the French presidency and the Commission, as well as the recommendations of the standing committee on agricultural research (*Agricultural research needs in support of the European model of agriculture*). This omission is having the following results: (a) agricultural research priorities under the programme are being watered down; (b) efforts to ensure that the ERA takes account of the challenges posed by the European model of agriculture are being hampered; and, lastly, (c) it is impossible for agricultural research to support the objectives targeted by the ongoing CAP reform. The draftsman's amendments are designed to remedy this shortcoming and complement the work of the committee responsible, on the basis of the following targets:

Area 1.1. Specific integration of *agriculture and food* as part of *genomic research and biotechnology*, emphasising food quality and safety guarantees and keeping environmental risk to a minimum.

Area 1.3. Strengthening the *competitiveness of the European bio-basic industry* by developing procedures for the manufacture of biomaterials and waste recycling.

Area 1.5. Developing food safety through *methods of analysis and risk detection* throughout

the food chain, and *encouraging organic farming techniques* and those which strengthen the *links between health and food*.

Area 1.6. Integrating *agriculture and forestry with the environment* so as to ensure the sustainability of the European agricultural model and the preservation of biodiversity.

Area 1.7. Incorporating agricultural multifunctionality into the CAP so as to develop *new forms of governance*.

Area 2.1. Targeting research objectives in order to support the *CAP reform* process and the operational development in this context of *agricultural multifunctionality, as a basis for sustainable farming and revitalising rural areas*.

The draftsman stresses that farmers must be involved in developing the parts of the sixth programme relating to agriculture through their organisations at European level.

AMENDMENTS

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

Text proposed by the Commission¹

Amendments by Parliament

ANNEX I: SCIENTIFIC AND TECHNOLOGICAL OBJECTIVES AND THE BROAD LINES OF THE ACTIVITIES

1. PRIORITY THEMATIC AREAS OF RESEARCH

1.1. Priority thematic areas of research

1.1.1. Genomics and biotechnology for health

Amendment 1 Subheading: Objective

The activities carried out in this area are intended to help Europe exploit, by means of an integrated research effort, breakthroughs achieved in decoding the genomes of living organisms, *more particularly for the benefit of public health and citizens and* to increase the competitiveness of the European biotechnology industry.

The activities carried out in this area are intended to help Europe exploit, by means of an integrated research effort, breakthroughs achieved in decoding the genomes of living organisms to increase the competitiveness of the European biotechnology industry *particularly the agri-foodstuffs sector, including agriculture, based on a dual approach: guaranteeing food quality and safety through better knowledge of the effects on*

¹ OJ C 180E, 26.6.2001, p. 156.

human health of the absorption and interaction of modifications of plants and animals; and minimising the risks to the environment, biodiversity and sustainable development deriving from their use.

Justification

This is in line with the rapporteur's amendments which extend this thematic area to genomics and biotechnology 'in general' (not just health), and combine the actions proposed by the Commission in areas 1.1.1. and 1.1.5. Accordingly, emphasis should be placed on improving knowledge of the effects which modifying the genetic bases of plants or animals may have on food and human health, as well as on the environment, biodiversity and sustainable development, as a vital precondition for introducing their use in agriculture and the agri-foodstuffs industry and strengthening its competitiveness.

Amendment 2

Subheading: Justification of the effort and European added value, paragraph 1

"Post-genomic" research based on analysis of the human genome and genomes of model (animal, plant and microbial) organisms, will culminate in numerous applications ***in various sectors, and notably in the development of new diagnostic tools and new treatments capable of helping to combat diseases that are not at present under control, offering major potential markets.***

"Post-genomic" research based on analysis of the human genome and genomes of model (animal, plant and microbial) organisms, will culminate in numerous applications ***for the biotechnology industry in general and for the agrifoodstuffs sector in particular and will continually ensure food quality and safety with minimum impact on the environment.***

Justification

This is in line with the rapporteur's amendments which extend this thematic area to genomics and biotechnology 'in general' (not just health) and combine the actions proposed by the Commission in areas 1.1.1 and 1.1.5. Accordingly, emphasis must be placed on guaranteeing safe and high quality products with minimum environmental impact as a vital precondition for gaining consumer confidence and consolidating the introduction of genomics and biotechnologies in agriculture and the agrifoodstuffs industry.

Amendment 3

Subheading: Justification of the effort and European added value, paragraph 1a (new)

Genomic research coordinated at European level, particularly in the agriculture and agrifoodstuffs sectors, should focus on those areas where it can achieve the greatest impact, should be able to unleash all existing potential in close cooperation with national initiatives, provide as much information as possible for scientists and the general public and should be flexible in duration, but with firm and realistic objectives.

Justification

This is in line with the rapporteur's amendments which extend this thematic area to genomics and biotechnology 'in general' (not just health) and combine the actions proposed by the Commission in areas 1.1.1 and 1.1.5. Accordingly, emphasis should be placed at methodological level on seeking greater synergy between actions under the framework programme and national measures, as well as ensuring that results are publicised so as to optimise joint research efforts and provide the necessary information to secure public confidence.

Amendment 4

Subheading: Actions envisaged, indent 3a (new)

- Application of knowledge and technologies in the field of genomics and biotechnology in the following areas:***
- Agriculture: study of the genetic maps of plants and animals with a view to exploiting their main assets, in particular resistance to pests and diseases and ability to adapt to soils and adverse climates; development of new products; development of alternative methods for tests on animal species with micro-organisms or others; introduction of methods for assessing the risks of new products as regards environmental impact on public health, including epidemiology related to genetic susceptibilities and more extensive research into genetically modified organisms.***
- Food: development of healthier and safer methods for manufacturing human and animal food components and***

products; introduction of methods for assessing the risks of new products as regards public health, including epidemiology related to genetic susceptibilities;

Justification

This is in line with the rapporteur's amendments which extend this thematic area to genomics and biotechnology 'in general' (not just health) and combine the actions proposed by the Commission in areas 1.1.1 and 1.1.5. On this basis, the main fields of research in the agricultural and food sectors can be defined.

1.1.3. Nanotechnologies, intelligent materials, and new production processes

Amendment 5

Subheading: Justification of the effort and European added value, paragraph 5a (new)

One of the main objectives in this area must be strengthening the competitiveness of the European bio-basic industry, by developing environmentally efficient technologies for the processing of plant, forestry, animal or waste products for the manufacture of new bio-materials, particularly bio-polymers and bio-fuels, as well as searching for new industrial applications for secondary resources, including recycling of agricultural and forestry waste.

Justification

Developing the European bio-basic industry can help achieve more economically and environmentally sustainable development, encourage more responsible use of resources (water, land, energy, etc.) and provide an outlet for surplus agricultural production. More efficient and cleaner technologies can be used to produce new products with higher added value and low environmental impact for which there is an established demand, while encouraging better use by industry of agricultural and forestry raw materials and waste.

Amendment 6

Subheading: Actions envisaged, paragraph 3 (new production processes), indents 3a and 3b (new)

- Development of environmentally efficient technologies for the extraction or modification of oils, proteins, starch, sugar or fibres from plants, animals or waste for the manufacture of bio-materials, particularly bio-polymers and bio-fuels.

- Development of new industrial applications that will increase the added value of agrifoodstuffs and forestry products, encourage the use of secondary resources and reduce agricultural or forestry waste, as well as the consumption of water and energy.

Justification

The aim is to define the main research areas for the development of new production processes for agriculture and forestry.

1.1.5. Food safety and health risks

Amendment 7

Subheading: Objective

The activities carried out in this area are intended to help establish the integrated scientific and technological bases ***needed to develop*** a system of production and distribution of safe ***and*** healthy food ***and*** control food-related risks, relying in particular on ***biotechnology tools, as well as*** health risks associated with environmental changes.

The activities carried out in this area are intended to help establish the integrated scientific and technological bases ***for health and safety by:***

- developing a system of production and distribution of safe, healthy ***and quality*** food ***in line with consumer requirements, habits and perceptions,***

- control and prevention of food-related risks, relying in particular on ***the introduction of HACCP (Hazard Assessment Critical Control Points) throughout the food chain to detect contaminants, toxins and pathogenic micro-organisms in general (including***

transmissible prions) present in foodstuffs,

- developing food technologies more in keeping with the fundamental role that nutrition, diet and lifestyle play as regards health and disease prevention, while at the same time facilitating consumer choice of products,

- control of health risks associated with environmental changes.

Justification

In line with the rapporteur's amendments, this area is now to be called 'Health and safety' and includes only those aspects of food security not related to biotechnologies. Accordingly, emphasis should be placed on the links between agricultural and food-related research and the growing consumer demand for healthy, safe and quality products. With this in view, control and prevention of food-related risks are vital by means of uniform scientific criteria and methods of analysis and detection of contaminants, toxins and pathogenic micro-organisms in general which may be present in food. In particular, it is important to extend the HACCP (Hazard Assessment Critical Control Points) to the whole of the food chain.

Amendment 8

Subheading: Actions envisaged, paragraph 1

Community activities will cover research relating to various aspects of the control of health risks and links between health and food:

1. Food. Community activities will cover research relating to various aspects of the control of health risks and links between health and food:

Justification

In line with the rapporteur's amendments, this area is to be called 'Health and safety' and includes only those aspects of food safety not related to biotechnologies. With the same end in view, a specific section on 'Food' is introduced.

Amendment 9

1.1.5. Food safety and health risks

Subheading: Actions envisaged, Paragraph 1, indent -1 (new)

- all aspects of food safety in all links in the food chain, from primary production to processing;

Justification

The Commission proposal does not mention the 'from farm to table' approach.

Amendment 10

Subheading: Actions envisaged, paragraph 1, indent 1

- methods of analysis and detection of chemical contaminants and pathogenic micro-organisms (viruses, bacteria, parasites, and new agents of the prion type);

- methods of analysis and detection of chemical contaminants and pathogenic micro-organisms (viruses, bacteria, parasites, and new agents of the prion type)
placing special emphasis on the introduction of HACCP (Hazard Assessment Critical Control Points) throughout the food chain;

Justification

In line with the rapporteur's amendments, this area is to be called 'Health and safety' and includes only those aspects of food safety not related to biotechnologies. The aim is to develop these aspects in the specific section on 'Food'.

Amendment 11

1.1.5. Food safety and health risks

Subheading: Actions envisaged, indent 1a (new)

– development of methods and products which cause very little or no damage to the environment, to combat natural agricultural crop diseases and pests;

Justification

Despite efforts to render farming sustainable, experience shows that too little funding is available from industry for developing environmentally sound plant protection products. In view of the importance of change in agriculture, government has a very important role to play here, which justifies financing research.

Amendment 12

1.1.5. Food safety and health risks

Subheading: Actions envisaged, Paragraph 1, indent 2

– impact of animal feed, and the use of sub-products of different origins for that feed, on human health;

– impact of animal feed, and the use of sub-products of different origins for that feed, on human health, ***devoting particular attention to knowledge of the mode of transmission of BSE and performing a detailed analysis, country by country, inter alia with a view to checking whether there are local or climatic factors which may affect or determine transmission;***

Justification

16 years after the appearance of BSE, this analysis seems essential, in view of the numerous doubts which scientists still have not resolved.

Amendment 13

Subheading: Actions envisaged, paragraph 1, indent 2a (new)

- technologies to promote organic farming and stockbreeding with all necessary guarantees, and to develop new products which meet consumer requirements and provide them with adequate information on intrinsic safety, duration, recyclability, ingredients, qualitative and nutritional properties, allergy risks and production methods used;

Justification

In line with the rapporteur's amendments, this area is to be called 'health and safety' and includes only those aspects of food safety not related to biotechnologies. With the same end in view, the aim is to develop the content of the actions envisaged under the new section on 'Food'.

Amendment 14

1.1.5. Food safety and health risks

Subheading: Actions envisaged, Paragraph 1, indent 2a (new)

– development of functional foodstuffs and food technologies in order to take more appropriate account of the fundamental importance of food, dietetics and life-style to health and prevention of diseases, at the same time helping consumers to choose products;

Justification

According to the draftsman's amendments, this section is to be called 'health and safety', and it is only to contain aspects of food safety which are not linked to biotechnology. The new subheading 'food' is similarly supplemented.

1.1.6. Sustainable development and global change

Amendment 15

1.1.6. Sustainable development and global change

Subheading: Justification of the effort and European added value

Paragraphs 6a, 6b and 6c (new)

In addition, the close ties between the environment and agriculture and forestry cannot be overlooked, since these activities occupy a large part of European territory and make direct use of natural resources. Helping to integrate agriculture, forestry and the environment would contribute to the sustainability of the European agricultural model, as well as preserving biodiversity and curbing the greenhouse effect.

With this in view, a three-pronged research strategy needs to be developed: first, the multifunctional role of agricultural and forestry activity must be incorporated into the various production systems as a focus for a new CAP capable of ensuring the sustainable development of rural areas; second, with a view to securing sustainable agricultural production, greater knowledge is needed of the impact of agriculture's negative externalities; lastly, appropriate political mechanisms must be devised to meet these challenges, making it possible to

provide farmers with aid in return for the goods and services of public interest they provide (positive externalities), introduce new production methods that are more environment-friendly and help protect genetic resources, geared to individual production systems, improve farm waste recycling techniques, develop alternatives to existing inputs to guarantee production and combat pests and diseases, encourage techniques to combat erosion and the effects of fires and acid rain on forests and, finally, study animal welfare rules while determining the precise economic effects on farms.

This strategy, with the support of a detailed study of economic analyses of the impact of the Agenda 2000 reform and indicators of the multifunctional role of each production system and local, regional and Community agri-environmental indicators, must provide quantified responses and thus facilitate decision-making both by economic operators and political leaders within the framework of a new CAP.

Justification

Economic analysis is a basic and indispensable requirement in order for reliable political answers to be provided.

Amendment 16

Subheading: Actions envisaged, paragraph 1, indent 2a (new)

- Agriculture and forests: quantifying the role of agriculture and forestry in the sustainable development of the various production systems and different rural areas (agricultural multifunctionality); quantifying the impact of this activity on the quality of water, soils and air under each production system; devising strategies and mechanisms within the framework of the CAP or other common policies that will make it possible to

consolidate sustainable agriculture (particularly with regard to support for farmers as occupants and managers of rural areas, introduction of new production methods with greater respect for the environment and biodiversity, application of new farm waste recycling techniques, encouraging the use of alternatives to existing inputs by industry to guarantee production and combat pests and diseases, extending techniques to combat erosion and the effects of fire and acid rain on forests and, lastly, the introduction of animal welfare rules).

Justification

The recent European Council in Gothenburg recognised sustainable development as a central Community objective that must be integrated into all common policies, including the CAP. A research strategy aimed at sustainable development should help the CAP to achieve this goal, bearing in mind the significant presence of agriculture and forestry in most of the Union's territory. In the first instance, this means identifying the positive and negative externalities derived from the primary activity and then incorporating into the CAP the mechanisms that will enable agricultural multifunctionality to be established as the focus of the European agricultural model and ensure sustainable development at economic and social as well as environmental level.

Amendment 17

1.1.6. Sustainable development and global change

Subheading: Actions envisaged, Technologies for sustainable development, Paragraph 2, indent 3

- new concepts in solar photovoltaic technologies and advanced uses of biomass.

*- new concepts in solar photovoltaic technologies and advanced uses of **animal and vegetable** biomass **of agricultural origin**.*

Justification

Clarifies the concept of biomass and improves the wording in general by including agricultural aspects.

Amendment 18

1.1.6. Sustainable development and global change
Subheading: Actions envisaged, Global change, indent 1

– impact and mechanisms of greenhouse gas emissions on climate and carbon sinks (oceans, forests **and** soil);

– impact and mechanisms of greenhouse gas emissions on climate and carbon sinks (oceans, forests, soil, **agriculture, greenhouse gas balance and replacement of fossil carbon with renewable carbon**);

Justification

Clarifies the concept of biomass and improves the wording in general by including agricultural aspects.

Amendment 19
1.1.6. Sustainable development and global change
Subheading: Actions envisaged, Global change, indent 3

– biodiversity, protection of genetic resources, operation of terrestrial and marine ecosystems and interactions between human activities and the latter;

– biodiversity, protection of genetic resources **and landscapes**, operation of terrestrial and marine ecosystems and interactions between human activities and the latter;

Justification

Clarifies the concept of biomass and improves the wording in general by including agricultural aspects.

Amendment 20
1.1.6. Sustainable development and global change
Subheading: Actions envisaged, Global change, indent 6 (new)

– **soil protection.**

Justification

Clarifies the concept of biomass and improves the wording in general by including agricultural aspects.

1.1.7. Citizens and governance in the European knowledge-based society

It is particularly important in this connection to take on board the parameters of the European knowledge-based society and the new forms of governance in the management and promotion of common policies already in force, especially the CAP. In particular, the recent food crises suffered by the Union have highlighted three developments: serious mistrust by consumers of the way in which national and Community political leaders have managed this sector; growing public demand for new forms of production compatible with sustainable development and guaranteeing healthier and safer products; and, lastly, growing social demand for new forms of public support for agriculture offering a more coherent response to the intrinsic values of the European social model (with regard to public health protection, economic and social cohesion, environmental imperatives, etc.). Measures to promote a multifunctional agriculture will make it possible to meet this three-pronged challenge and improve the governance of the main common policy, since it will include a closer connection to the land, will be drawn up with greater regard for consumer interests and will generally be closer to citizens. However, this is not enough. It is also important to take advantage of the resources offered by the knowledge-based society to introduce effective strategies for social communication of the results of scientific and technological progress in the agri-foodstuffs sector and the changes made to the mechanisms and management of the CAP.

Justification

The management of established common policies, first and foremost the CAP, cannot remain outside the knowledge-based society and the new forms of governance. Consolidating the multifunctional agricultural model under the CAP can improve its governance. Furthermore, use must be made of the resources of the knowledge-based society to improve communication with farmers, consumers and society in general.

Amendment 22

Subheading: Actions envisaged (action 1, Knowledge-based society), indent 2

- options and choices for the development of a knowledge-based society serving the EU objectives set at the ***Lisbon and Nice*** European Councils, in particular as regards improving the quality of life, employment and labour market policies, life-long education and training, and strengthening social cohesion and sustainable development;

- options and choices for the development of a knowledge-based society serving the EU objectives set at the ***most recent*** European Councils, in particular as regards improving the quality of life, ***guaranteeing safe and healthy food***, employment and labour market policies, life-long education and training, and strengthening social cohesion and sustainable development ***and consolidating the multifunctional aspects of agriculture***;

Justification

One of the objectives repeatedly set by the Union at recent European Councils has been to guarantee healthy and safe food (something which is also one of the priority objectives of the JCR under the framework programme), together with the gradual development of agricultural multifunctionality as the backbone of the reform of the CAP and the Community's agricultural supply during the agricultural negotiations under way at the WTO.

Amendment 23

Subheading: Actions envisaged (action 2, Citizenship, democracy and new forms of governance), indent 4a (new)

- role of multifunctional agriculture and of a living countryside in satisfying, via new forms of governance, the growing social demand for products of recognised

*quality, balanced regional planning,
protection of the natural environment and
preservation of cultural roots.*

Justification

The development of agricultural multifunctionality can help ensure better governance of the CAP and rural development measures in line with the new requirements of the urban world and consumers.

1.2. Anticipating the EU's scientific and technological needs

Amendment 24
Paragraph 1a (new)

- In the agricultural sector, in particular to the extent that it is governed by the common agricultural policy, research should contribute to: (a) providing objective information to support agricultural and forestry production systems, integrated rural development and the future direction of Community measures in these spheres; (b) defining a conceptual framework and methods for quantifying and encouraging competitiveness, agricultural and forestry sustainability and product quality; (c) defining a quantitative framework for assessing and curbing the negative environmental effects of agriculture; (d) defining a quantitative framework for assessing, encouraging and providing compensation for goods and public services of agricultural origin; (e) defining a conceptual framework and quantitative methods for adapting agricultural and rural policy instruments to new commercial, environmental and health requirements; (f) assessing the effectiveness of market and rural development management mechanisms in use and analysing possible alternatives to

them.

Justification

Because of its importance in the budget and development of the European Community, specific reference should be made to the CAP in this section on scientific and technological needs of the common policies, particularly at a time when it is in the throes of reform with a view to meeting new and expanding commercial, environmental and health requirements.

Amendment 25

1.2. Anticipating the EU's scientific and technological needs
Paragraph 1, indent 2a (new)

– finance research to overcome gaps which have been identified in knowledge and in respect of which the precautionary principle has been used in formulating Community policy.

Justification

Inclusion of the precautionary principle in the section concerning anticipating scientific needs.

Amendment 26

Subheading: Research necessary for the formulation, implementation and enforcement of Community and EU policies, indent 1

- research in support of the implementation of common policies such as the common agricultural policy and the common fisheries policy;

- research in support of the implementation of common policies such as the common agricultural policy and the common fisheries policy;
- specifically, in the agricultural sector the emphasis should be on the following objectives: analysing the foreseeable impact on the competitiveness of the European agri-foodstuffs sector and on the management of the CAP of enlargement to the East, the development

of the WTO framework, preferential trade agreements and international environment agreements, as a first step towards studying possible measures to be taken in response; defining a conceptual framework and more suitable mechanisms for incorporating the multifunctional dimension of agriculture into the CAP; defining a conceptual framework and more appropriate mechanisms for establishing links between agriculture and forestry and the environment and guaranteeing sustainable development; defining a conceptual framework and more appropriate mechanisms for ensuring integrated and sustainable development of rural areas from the economic and social point of view; developing new forms of health and plant health protection, and animal welfare;

Justification

Because of its importance in the budget and development of the European Community, full details should be given of the backup research needed in future for the CAP, at a time when it is being reformed in order to meet new and growing commercial, environmental and health requirements.

Amendment 27

- 1.2.1. Activities carried out on the basis of calls for proposals
Paragraph 1, indent 1, subparagraph 1a (new)

– particularly the development of approaches and technologies which accord with the changing value and functions which society assigns to agriculture and food production, and research into such animal diseases as foot-and-mouth disease and swine fever and particularly the development of marker vaccines;

Justification

The Commission proposal must be supplemented by further emphasising the importance of research into changes in the food chain and its social context. Research into animal diseases is extremely important.

Amendment 28

Annex III: Instruments and detailed rules for Community financial participation Instruments

Subheading 1.1.2 a: Stairway of excellence (new)

This instrument must be used in a flexible manner and in such a way as to provide the means of involving new, small participants with innovative research projects and the potential to meet the critical mass and centres of excellence criteria.

Such projects must be consistent and, as far as possible, related to the main priority areas of the framework programme. The budget shall account for no more than 20% of the overall budget. The administration may delegate responsibility to external bodies in cases in which this would be beneficial from a financial and administrative point of view.

Justification

It is essential to operate at European level given that there are many small, high-quality research teams in the EU. Furthermore, if SMEs and the applicant countries are to be involved, provision must be made within the programme for small, high-quality, innovative initiatives. This would provide a way in for precompetitive groups and centres which, to date, have not been able to take part in European programmes, and thus offer new opportunities to become part of areas of excellence. The programme should also be opened up to research centres and teams scattered throughout the EU, so as to compensate for the fact that the other instruments encourage centralised management.

13 July 2001

OPINION OF THE COMMITTEE ON FISHERIES

for the Committee on Industry, External Trade, Research and Energy

on the proposal for a Council decision concerning the multiannual framework programme 2002-2006 of the European Community for research, technological development and demonstration activities aimed at contributing towards the creation of the European research area

(COM(2001) 94 - C5-0087/2001 - 2001/0053((COD))

Draftsman: Bernard Poignant

PROCEDURE

The Committee on Fisheries appointed Bernard Poignant draftsman at its meeting of 24 April 2001.

It considered the draft opinion at its meetings of 29 May, 18 June and 11 July 2001.

At the last meeting it adopted the following amendments unanimously.

The following were present for the vote: Daniel Varela Suanzes-Carpegna, chairman; Rosa Miguélez Ramos, Hugues Martin, vice-chairmen; Bernard Poignant, draftsman; Elspeth Attwooll, Niels Busk, Arlindo Cunha, Nigel Paul Farage, Carmen Fraga Estévez, Pat the Cope Gallagher, Ian Stewart Hudgton, Salvador Jové Peres (for Mihail Papayannakis), Heinz Kindermann, Brigitte Langenhagen, Albert Jan Maat (for James Nicholson), Struan Stevenson, and Antonio Tajani.

SHORT JUSTIFICATION

Introduction

The Commission adopted proposals on the new framework programme for research and innovation on 21 February 2001. This sixth programme is part of a wider policy, ratified by the Lisbon summit in March 2000 aimed at creating a European research area. The Commission presented the new programme to the Stockholm summit of 23 and 24 March 2001. The Commission considers the implementation of the sixth framework programme to be more necessary than ever bearing in mind the increasing competition in this field, the efforts already made under the fifth framework programme and the need to respond to recent crises and developments in the area of food safety.

The priorities of the fifth framework programme, which will remain in force until 2003, were identified on the basis of criteria reflecting the importance of increasing industrial competition and of quality of life for European citizens. With regard to fisheries, most research projects were undertaken as part of the key action 'quality of life and management of living resources'. The Commission expects to contribute around EUR 118 million for research in the area of fisheries over the period 1999-2002. It has found a number of constraints affecting the application of the fifth programme and intends to seek a solution. The new programme is to be based on greater concentration of financial assistance on a restricted number of priority areas in order to achieve a greater critical mass and prevent the fragmentation of research efforts. According to the Commission, the *raison d'être* of the new framework programme is to help to make a reality of the European research area with a view to stepping up innovation in Europe.

The Commission proposes allocating a budget of EUR 17.5 billion to the new framework programme, representing an increase of 17%.

The sixth framework programme for research and innovation

The sixth framework programme forms part of the creation of the European research area to which Parliament lent its support in its resolution of 18 May 2000 (A5-0131/2000).

The objectives of the European research area were defined in the Commission communication to the Council, the European Parliament, the Economic and Social Committee and the Committee on the Regions. The objectives to be pursued in the various areas will be, *inter alia*:

- **Research activities**, e.g. improving the performance of European research, particularly through networking and the coordinated implementation of national programmes, networking between public centres and fora of excellence and the implementation of major research projects;
- **Research and innovation, start-ups and SMEs**, e.g., strengthening capacity for technological innovation within the Union, particularly by supporting research for and in SMEs and the dissemination and transfer of know-how;
- **Research infrastructure**, including action to strengthen European research infrastructure;
- **Human resources**, with European human resources being strengthened in the areas of science, technology and innovation;
- **Science, society and citizens**, involving the introduction at European level of a new contract between science and society, by strengthening the link between research activities and policies and the needs of society.

The sixth framework programme reflects three main avenues of approach in the implementation of the European research area:

1. Integrating research

The Commission has defined seven priorities in this area with the aim of assembling a critical mass of resources and supporting a high level of integration of research capacities in Europe. Budget available: EUR 12 770 million.

2. Structuring the European research area

The objective is to stimulate technological innovation, the utilisation of research results and the setting-up of technology businesses. Budget available : EUR 3 050 million.

3. Strengthening the foundations of the European research area. The objective here is to step up the coordination and support the coherent development of research policies. Budget available : EUR 450 million.

Seven priority themes have been selected under the first heading:

- 1. Genomics and biotechnology for health: the objective is to exploit the breakthroughs achieved in the coding of genomes in order to help combat serious diseases and strengthen the European biotechnology industry. Budget: EUR 2000 m.
- 2. Information society technologies: the objective is to stimulate the development of essential information technologies in order to strengthen industry in this sector and give European citizens an opportunity to benefit fully from the development of the knowledge-based society. Budget: EUR 3 600 m.
- 3. Nanotechnologies, intelligent materials and new production processes: the objective is to help European firms to take advantage of leading-edge technologies for the knowledge- and intelligence-based products, services and manufacturing processes of the years to come. Budget: EUR 1 300 m.
- 4. Aeronautics and space: the objective is to consolidate the position of the European aerospace industry and to make fresh progress in the area of safety and environmental protection. Budget: EUR 1 000 m.
- 5. Food safety and health risks: the objective is to establish the scientific basis needed for the production of safe and healthy food and the control of health risks associated with environmental changes. Budget: EUR 600 m.
- 6. Sustainable development and global change: the objective is to strengthen the scientific and technological capacities needed for Europe to be able to implement sustainable development and make a significant contribution to the international efforts to understand and control global change. Budget: EUR 1700 m.
- 7. Citizens and governance in the European knowledge-based society : the objective is to mobilise European research capacities in economic, political, social and human sciences with a view to understanding and addressing issues related to the emergence of the knowledge-based society in the various cultures of which Europe is made up. Budget: EUR 225 m.

Part of the budget (EUR 2 345 m) is to be set aside for an eighth criterion which is intended to help to improve public policies at European level by anticipating the EU's scientific and technological needs. These activities will concern fisheries policy, for example, as well as specific aspects of transport, energy and environment policy, along with other areas of EU activity. It will also support activities at the frontiers of science and technology.

The mobility programme for researchers, which falls under the second heading, is to double in size. The objective is to increase the mobility of researchers in Europe and to make Europe more attractive for top-class researchers from all over the world.

With a view to strengthening the foundations of the European research area (heading 3), new

measures are proposed to help the national authorities to open their programme to researchers from third countries and to link their own programmes with those of other Member States in order to enhance their impact.

The Commission intends to reduce bureaucracy by rationalising the administration and management of programmes and has proposed new forms of financing such as financial contributions to integrated projects and support for networks of excellence. For the first time, the Commission is also proposing to encourage the use of an instrument (under Article 169 of the Treaty) which will enable the Union to contribute to national programmes carried out jointly.

In budgetary terms, the sixth framework programme covers the four-year period from 2003 to 2006 inclusive.

Sixth framework programme and fisheries policy

The Commission launched the Green Paper on the reform of the common fisheries policy at the beginning of March 2001. In that document, the Commission proposes intensifying research activities in almost all areas of fisheries. It recognises that in many areas the CFP has failed to deliver owing to the weakness of scientific data. In considering the framework programme, your draftsman would propose establishing a clear link between that programme and the Green Paper. On the basis of the action areas identified in the Green Paper, your draftsman would call for greater and better support in the following areas:

1. Strengthening and improving conservation policy

One of the main objectives laid down in the Green Paper is to establish responsible and sustainable fisheries and ensure healthy marine ecosystems. To that end, multiannual management is called for. Your draftsman approves one of the conclusions of the Commission Green Paper, according to which multiannual provisions on the implementation of TACs could prevent certain problems such as abrupt changes in the volumes of annual TACs and their consequences for the fishing industry. Changing from an annual to a multiannual system would need to be strongly geared to firm scientific data.

A second area in which research should play a part concerns action to promote selectivity devices to reduce by-catches. This type of technical measure might also help to prevent the destruction of ecologically sensitive marine areas.

2. The environmental dimension of the CFP

Your draftsman considers the protection of the marine ecosystem to be an essential priority. Many unknown elements such as climate change appear to be having an influence on biodiversity and levels of fish stocks. Integrated multi-disciplinary research is vital in order to cast light on these complex mechanisms.

3. Protecting animal and public health and safety to ensure consumer protection

The recent crises in the farming industry have made us aware of how vulnerable the current food chain can be. The fishing industry has not been spared. Nevertheless, dioxin and PCBs (polychlorinated biphenyls) have had a limited impact on fish products. Listeria has also posed problems. Hygiene and genetic modification are other topics of concern in the fishing industry. Finally, there is a need for research in the aquaculture industry (for example in the area of feedingstuffs) in order to optimise consumer protection.

4. Better integration of scientific advice into the decision-making process

The Commission states in the Green Paper that the CFP requires clear scientific advice which must be the product of multi-disciplinary research (biology, ecology, social science and

economics). The quality of scientific research certainly plays an important part, but the transfer of knowledge in a way which is appropriate and comprehensible for all those involved in the industry is also important.

5. *Strengthening the social and economic dimension of the CFP*

Parliament's Committee on Fisheries has repeatedly expressed its concern regarding safety and working conditions for fishermen. Even though the quality of vessels is of major importance, there is also a need for socio-economic research into working conditions.

6. *External relations*

Scientific cooperation is included in many fisheries agreements with third countries, in the interest of both the countries concerned and the European Union. Scientific research is carried out under these fisheries agreements with the particular aim of ensuring the conservation of fisheries resources.

Conclusions

Fisheries is mentioned only in the first heading of the eighth priority of the sixth framework programme. The inclusion of fisheries in this priority is not guaranteed, since it will depend on the submission of projects with a financial threshold of EUR 10 m. This sum is too high measured against most of the fisheries projects carried out under the fifth framework programme. No mention has been made of including fisheries in two other priority fields of the framework programme, namely food safety and sustainable development. Your draftsman has tabled a number of amendments aimed at ensuring that the Commission shoulders its responsibilities and adjusts the framework programme in line with the Green Paper on the CFP.

AMENDMENTS

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

Text proposed by the Commission ¹	Amendments by Parliament
<p style="text-align: center;">Amendment 1</p> <p style="text-align: center;">Annexe I : Scientific and technological objectives and broad lines of the activities</p> <p style="text-align: center;">Point 1.1.1. Genomics and biotechnology for health</p>	
<p><u>Objective</u></p> <p>1.1.1. Genomics and biotechnology for health</p> <p>The activities carried out in this area are intended to help Europe exploit, by means of an integrated research effort, breakthroughs</p>	<p><u>Objective</u></p> <p>1.1.1. Genomics and biotechnology for health</p> <p>The activities carried out in this area are intended to help Europe exploit, by means of an integrated research effort, breakthroughs</p>

¹ OJ C 180E, 26.6.2001, p. 156.

achieved in decoding the genomes of living organisms, ***more particularly for the benefit of public health and citizens and to increase the competitiveness of the European biotechnology industry.***

achieved in decoding the genomes of ***all*** living organisms. _

Justification

Is it really necessary to spell out research priorities in the field of genomics and biotechnology for health? Whatever research is envisaged, it is obvious that the objective is to improve human health and quality of life.

Amendment 2

Annex I: Scientific and technological objectives and broad lines of the activities
Point 1.1.2. Information Society technologies

Objective

The activities carried out in this area, pursuant to the conclusions of the Lisbon European Council and the objectives of the e-Europe initiative, are intended to stimulate the development in Europe of technologies and applications at the heart of the creation of the Information Society in order to increase the competitiveness of European industry and allow European citizens in all EU regions the possibility of benefiting fully from the development of the knowledge-based society.

Objective

The activities carried out in this area, pursuant to the conclusions of the Lisbon European Council and the objectives of the e-Europe initiative, are intended to stimulate the development in Europe of technologies and applications at the heart of the creation of the Information Society in order to increase the competitiveness of European industry and allow European citizens in all EU regions the possibility of benefiting fully from the development of the knowledge-based society, ***and of enhancing their quality of life and improving their working conditions.***

Justification

Living conditions in the fishing industry will be greatly improved when information and communication technologies make it easier to carry out some of the activities made difficult by remoteness.

Amendment 3

Annex I: Scientific and technological objectives and broad lines of the activities
Point 1.1.2. Information Society technologies
Actions envisaged (first ..)

- ambient intelligence systems

- ambient intelligence systems

offering access to the information society for all, whatever their age and situation, as well as interactive and intelligent systems for health, mobility, security, leisure, preservation of the cultural heritage and environmental monitoring;

offering access to the information society for all, whatever their age and situation, as well as interactive and intelligent systems for health, mobility **and security of individuals and materials**, leisure, preservation of the cultural heritage and environmental monitoring (**including the marine environment**);

Justification

There is no doubt that improving quality of life for seafarers entails improving fishing gear and the computing and technological equipment on board.

Amendment 4

Annex I: Scientific and technological objectives and broad lines of the activities Point 1.1.5. Food safety and health risks

Objective

The activities carried out in this area are intended to help establish the integrated scientific and technological bases needed to develop a system of production and distribution of safe and healthy food and control food-related risks, relying in particular on biotechnology tools, as well as health risks associated with environmental changes.

Objective

The activities carried out in this area are intended to help establish the integrated scientific and technological bases needed to develop a system of production and distribution of safe and healthy food, **including sea food**, and control food-related risks, relying in particular on biotechnology tools, as well as health risks associated with environmental changes.

Justification

Food obtained from fishing and aquaculture provides a substantial proportion of the world's nutrition. These foodstuffs should be included in the activities carried out in the field of food safety and health risks in order to ensure optimum protection for consumers.

Amendment 5

Annex I: Scientific and technological objectives and broad lines of the activities Point 1.1.6. Sustainable development and global change Justification of the effort and European added value (second ...)

- a better understanding of the mechanisms of global change, and in particular climate change and our related forecasting capacities.

- a better understanding of the mechanisms of global change, and in particular climate change **and its influence on human beings and the global ecosystem, including the marine ecosystem**, and our related forecasting

capacities.

Justification

It is important to understand the reasons for climate change and its consequences for oceans and fishery resources, inter alia.

Amendment 6

Annex I: Scientific and technological objectives and broad lines of the activities

Point 1.1.6. Sustainable development and global change

Justification of the effort and European added value (...)

Research efforts must be coherent with other Union policies and must take account of future developments such as the reform of the common fisheries policy.

Justification

The framework programme must be coherent with the Union's other policy areas and with forthcoming developments in those policy areas, for example in the context of the reform of the common fisheries policy.

Amendment 7

Annex I Scientific and technological objectives and broad lines of the activities

Point 1.1.6. Sustainable development and global change

Actions envisaged - Global change - 3rd indent

- | | |
|---|---|
| – biodiversity, protection of genetic resources, operation of terrestrial and marine ecosystems and interactions between human activities and the latter; | biodiversity, protection of genetic resources, operation of terrestrial and marine ecosystems and interactions between human activities and the latter, <i>within the context of sustainable development</i> ; |
|---|---|

Justification

Sustainable development is the main theme of the Green Paper on fisheries policy reform. It is therefore important that sustainability be reflected in the activities proposed by the Commission within the framework of biodiversity, protection of genetic resources, etc.

Amendment 8

Annex I Scientific and technological objectives and broad lines of the activities
Point 1.1.7. Citizens and governance in the European knowledge-based society

Objective

The activities carried out in this area are intended to mobilise in a coherent effort, in all their wealth and diversity, European research capacities in economic, political, social and human sciences with a view to understanding and addressing issues related to the emergence of the knowledge-based society and new forms of relationships between its citizens and institutions.

Objective

The activities carried out in this area are intended to mobilise in a coherent effort, in all their wealth and diversity, European research capacities in economic, political, social and human sciences with a view to understanding and addressing issues related to the emergence of the knowledge-based society and new forms of relationships between its citizens, ***on the one hand, and between its citizens and institutions, on the other hand.***

Justification

Exchanges in the area of research must not be confined to relations between citizens and institutions but should provide an opportunity for strengthening contacts among citizens themselves.

Amendment 9

Annex I: Scientific and technological objectives and broad lines of the activities

Point 1.2.1. Activities carried out on the basis of calls for proposals

The activities carried out in these areas will be implemented under the following conditions, on the basis of the following principles and with the help of the following mechanisms:
indent 1a (new)

- ***in the framework of common policies, where support and needs have been identified, multiannual work programmes will be drawn up when the framework programme comes into force.***

Justification

In order to provide a solid base for the preparation of research projects to meet Community requirements, work programmes will need to be multiannual so as to avoid giving scientific institutes a timescale that is too restricted and too uncertain. As project preparation often requires substantial investment, annual work programmes could deter some scientific institutes from embarking on projects, which would undermine the quality of the framework programme's implementation.

Amendment 10

Annex I Scientific and technological objectives and broad lines of the activities

Point 1.2.1. Activities carried out on the basis of calls for proposals

The activities carried out in these areas will be implemented under the following conditions,
on the basis of the following principles and with the help of the following mechanisms:
second indent

– The choice of research topics, areas and subjects will be made by the Commission on the basis of assessment by an internal group of users, taking account of the opinion of an independent consultative body made up of high-level scientific and industrial experts.

The choice of research topics, areas and subjects will be made by the Commission on the basis of assessment by an internal group of users, taking account of the opinion of an independent consultative body made up of high-level scientific and industrial experts, ***using as a basis the work carried out by the thematic subgroups.***

Justification

The Community's advisory committees, such as the Scientific, Technical and Economic Committee for Fisheries make an important contribution to the various stages of developing the framework programme. Not to make use of the expertise of the Community's scientific committees would be a serious waste of resources.

Amendment 11

Annex 1 Scientific and technological objectives and broad lines of the activities

Point 1.2.1. Activities carried out on the basis of calls for proposals

The activities carried out in these areas will be implemented under the following conditions,
on the basis of the following principles and with the help of the following mechanisms:
indent 2a (new)

- An allocation scale for the various policies will be established for each specific programme level.

Justification

In order to meet the requirement for transparency in the allocation of what are often substantial sums in this area, an allocation scale needs to be established in advance. It will clearly reflect the Community's preferences and avoid discretion in the selection of projects submitted. In addition, in certain sectors the absence of an allocation scale might deter the presentation of projects.

Amendment 12

Annex 1 Scientific and technological objectives and broad lines of the activities

Point 1.2.1. Activities carried out on the basis of calls for proposals

- In accordance with their spirit and objective, the activities carried out under this heading will be implemented on the basis of annual decisions.

- In accordance with their spirit and objective, the activities carried out under this heading will be implemented on the basis of annual decisions, ***which will themselves incorporate the multiannual dimension of certain projects.***

Justification

A high percentage of projects in the field of fisheries and aquaculture are multiannual in nature.

Amendment 13

Annex III: Instruments and detailed rules for Community financial participation
Paragraph 5.2: Actions envisaged and means of budget intervention

- in the priority thematic areas of research, to integrated projects, of an order of magnitude ***of around EUR 10 million*** carried out by consortia often involving strong university/industry collaboration;

- in the priority thematic areas of research, to integrated projects, of an order of magnitude ***which will depend on the specific nature of the policy area of the project,*** carried out by consortia often involving strong university/industry collaboration;

Justification

Care should be taken to prevent financial aspects from determining the value of scientific research projects. The level of funding required varies widely according to the area concerned. In the case of fisheries policy, projects are often modest in financial terms.