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REPORT

on the amended proposal for a Council decision adopting a specific programme for research, technological development and demonstration: 'Integrating and strengthening the European Research Area' (2002-2006)
(COM(2002) 43 – C5-0212/2002 – 2001/0122(CNS))

Committee on Industry, External Trade, Research and Energy

Rapporteur: W.G. van Velzen

Symbols for procedures

- * Consultation procedure
majority of the votes cast
- **I Cooperation procedure (first reading)
majority of the votes cast
- **II Cooperation procedure (second reading)
*majority of the votes cast, to approve the common position
majority of Parliament's component Members, to reject or amend
the common position*
- *** Assent procedure
*majority of Parliament's component Members except in cases
covered by Articles 105, 107, 161 and 300 of the EC Treaty and
Article 7 of the EU Treaty*
- ***I Codecision procedure (first reading)
majority of the votes cast
- ***II Codecision procedure (second reading)
*majority of the votes cast, to approve the common position
majority of Parliament's component Members, to reject or amend
the common position*
- ***III Codecision procedure (third reading)
majority of the votes cast, to approve the joint text

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

Amendments to a legislative text

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

CONTENTS

	Page
PROCEDURAL PAGE	4
DRAFT LEGISLATIVE RESOLUTION.....	6
EXPLANATORY STATEMENT	76
OPINION OF THE COMMITTEE ON BUDGETS	78
OPINION OF THE COMMITTEE ON AGRICULTURE AND RURAL DEVELOPMENT	99
OPINION OF THE COMMITTEE ON FISHERIES	106

PROCEDURAL PAGE

By letter of 6 July 2001 the Council consulted Parliament, pursuant to Article 166 of the EC Treaty, on the proposal for a Council decision on adopting a specific programme 2002-2006 for research, technological development and demonstration aimed at 'Integrating and strengthening the European Research Area' (COM(2001) 279 – 2001/0122(CNS)).

At the sitting of 3 September 2001 the President of Parliament announced that she had referred this proposal to the Committee on Industry, External Trade, Research and Energy as the committee responsible and the Committee on Budgets and all the committees concerned for their opinions (C5-0330/2001).

By letter of 18 October 2001, the Commission forwarded the amended proposal for a Council decision adopting a specific programme for research, technological development and demonstration aimed at integrating and strengthening the European Research Area [2002-2006] (COM(2001) 554 – 2001/0122(CNS)).

At the sitting of 12 November 2001 the President of Parliament announce that she had referred this proposal to the Committee on Industry, External Trade, Research and Energy as the committee responsible and the Committee on Budgets and all the committees concerned for their opinions (C5-0554/2001).

By letter of 31 January the Commission forwarded the amended proposal for a Council decision adopting a specific programme for research, technological development and demonstration: 'Integrating and strengthening the European Research Area' (2002-2006) (COM(2002) 43 – 2001/0122 (CNS)).

At the sitting of 29 May 2002 the President of Parliament announced that he had referred this proposal to the Committee on Industry, External Trade, Research and Energy as the committee responsible and the Committee on Budgets and all the committees concerned for their opinions (C5-0212/2002).

The Committee on Industry, External Trade, Research and Energy appointed W.G. van Velzen rapporteur at its meeting of 19 February 2002.

It considered the Commission proposal and the draft report at its meetings of 26 February, 27 March, 17 April, 21 May and 28 May 2002.

At the latter meeting it adopted the draft legislative resolution by 42 votes, with 1 abstention.

The following were present for the vote: Carlos Westendorp y Cabeza, chairman; Peter Michael Mombaur, Yves Piétrasanta and Jaime Valdivielso de Cué, vice-chairmen; W.G. van Velzen, rapporteur; Nuala Ahern, Konstantinos Alyssandrakis, Sir Robert Atkins, Bastiaan Belder (for Yves Butel), Luis Berenguer Fuster, Guido Bodrato, Gérard Caudron, Giles Bryan Chichester, Nicholas Clegg, Dorette Corbey (for Massimo Carraro), Willy C.E.H. De Clercq, Concepció Ferrer, Glyn Ford (for Harlem Désir), Norbert Glante, Alfred Gomolka (for Marjo Matikainen-Kallström), Michel Hansenne, Hans Karlsson, Bashir Khanbhai, Werner Langen, Peter Liese

(for Paolo Pastorelli), Caroline Lucas, Minerva Melpomeni Malliori (for Rolf Linkohr), Eryl Margaret McNally, William Francis Newton Dunn (for Colette Flesch), Angelika Niebler, Elly Plooij-van Gorsel, John Purvis, Godelieve Quisthoudt-Rowohl, Alexander Radwan (for Umberto Scapagnini), Bernhard Rapkay (for Erika Mann), Imelda Mary Read, Mechtild Rothe, Christian Foldberg Rovsing, Paul Rübig, Konrad K. Schwaiger, Alejo Vidal-Quadras Roca, Myrsini Zorba and Olga Zrihen Zaari.

The opinions of the Committee on Budgets, the Committee on Agriculture and Rural Development and the Committee on Fisheries are attached.

The report was tabled on 30 May 2002.

The deadline for tabling amendments will be indicated in the draft agenda for the relevant part-session.

DRAFT LEGISLATIVE RESOLUTION

European Parliament legislation resolution on the amended proposal for a Council decision adopting a specific programme for research, technological development and demonstration: 'Integrating and strengthening the European Research Area' (COM(2002) 43 – C5-0212/2002 – 2002/0122(CNS))

(Consultation procedure)

The European Parliament,

- having regard to the Commission proposals to the Council and the amended proposal (COM(2001) 0279¹, COM(2001) 594² and COM(2002) 43³),
 - having been consulted by the Council pursuant to Article 166 of the EC-Treaty (C5-0212/2002),
 - having regard to Rule 67 of its Rules of Procedure,
 - having regard to the report of the Committee on Industry, External Trade, Research and Energy and the opinions of the Committee on Budgets, the Committee on Agriculture and Rural Development and the Committee on Fisheries (A5-0211/2002),
1. Approves the Commission proposal as amended;
 2. Calls on the Commission to alter its proposal accordingly, pursuant to Article 250(2) of the EC Treaty;
 3. Calls on the Council to notify Parliament should it intend to depart from the text approved by Parliament;
 4. Asks to be consulted again if the Council intends to amend the Commission proposal substantially;
 5. Instructs its President to forward its position to the Council and Commission.

¹ OJ C 240 E, 28.8.2001, p. 194.

² OJ C 51E, 26.2.2002, p. 308.

³ No yet published in OJ.

Amendment 1
Recital 4

(4) The importance of the new instruments (Integrated Projects and Networks of Excellence) is recognised as being an overall priority means to attain the objectives of critical mass, management simplification and European added value contributed by Community research in relation to what is already undertaken at national level, and of the integration of the research capacities. **They** should enable personnel and administrative expenses to be reduced to a maximum of 6.0 % of the overall amount deemed necessary for the implementation of the programme. In 2004 an evaluation will be undertaken by independent experts of the efficiency of each of these instruments in the execution of the framework programme.

(4) The importance of the new instruments (Integrated Projects and Networks of Excellence) is recognised as being an overall priority means to attain the objectives of critical mass, management simplification and European added value contributed by Community research in relation to what is already undertaken at national level, and of the integration of the research capacities. ***A smooth transition from the modalities used in the Fifth Framework Programme to those used in the Sixth Framework Programme will be ensured. The instruments*** should enable personnel and administrative expenses to be reduced to a maximum of 6.0 % of the overall amount deemed necessary for the implementation of the programme. In 2004 an evaluation will be undertaken by independent experts of the efficiency of each of these instruments in the execution of the framework programme, ***and information on the use of the instruments shall also be included in the annual report to be submitted by the Commission pursuant to Article 173 of the Treaty.***

(This text modifies Amendment 1 of Fdr PR461618 according to the Compromise Amendments 5 and 6 of the 2nd reading of the research framework programme, report Caudron, adopted on 15.5.2002, A5-233/2002)

Justification

Already in its report on the 6th Research Framework Programme the EP has made this proposal to continue the use of the "old" instruments.

¹ OJ C - not yet published.

Amendment 2
Recital 7

(7) Research activities carried out within this programme must respect fundamental ethical principles, including those which appear in the Charter of Fundamental Rights of the European Union; no support will be provided to research aimed at military purposes.

(7) Research activities carried out within this programme must respect fundamental ethical principles, including those which appear in the Charter of Fundamental Rights of the European Union ***and also those laid down in the Protocol on the protection and welfare of animals annexed to the Treaty of Amsterdam***; no support will be provided to research aimed at military purposes.

Justification

In the two readings of the 6th Framework Programme, the European Parliament has adopted several amendments concerning alternative test methods on animals. It is therefore logical to bring these amendments into the text of the Specific Programmes.

Amendment 3
Recital 7a (new)

(7a) In this programme, integrated interdisciplinary research work must be a priority, as must ‘bottom-up’ approaches to research, which are concerned with the specific needs of the public.

Justification:

The cornerstone of the European agricultural model is the multifunctionality of farming, which by its nature requires an integrated interdisciplinary approach in order to highlight the interactions between technical, economic, environmental and social aspects which may occur between this type of enterprise and the environment in which it operates.

Amendment 4

Recital 14

(14) The new instruments will be used from the start of the Sixth Framework Programme in each theme and, where deemed appropriate, as a priority means, while maintaining the use of specific targeted research projects and coordination actions.

(14) The new instruments ***and the old instruments from the Fifth Framework Programme*** will be used from the start of the Sixth Framework Programme in each theme and, where deemed appropriate, as a priority means, while maintaining the use of specific targeted research projects and coordination actions.

Justification

Already in its report on the 6th Research Framework Programme the EP has made this proposal.

Amendment 5 Article 2

In accordance with Annex II of the framework programme, the amount deemed necessary for the execution of the specific programme is EUR 12 855 million, including a maximum of 6.0% for the Commission's administrative expenditure. An indicative breakdown of this amount is given in Annex II.

(Does not affect English version)

Justification

The smooth transition from the instruments of FP 5 to those of FP 6 will lead to slightly higher administrative costs (Does not affect English version).

Amendment 6
Article 3

All research activities carried out under the specific programme must be carried out in compliance with fundamental ethical principles.

All research activities carried out under the specific programme must be carried out in compliance with fundamental ethical principles *as laid down in the Sixth Framework Programme*.

Justification

Link to the decision on the 6th Research Framework Programme.

Amendment 7
Article 8, paragraph 1

1. The Commission shall **regularly** report on the overall progress of the implementation of the specific programme, in accordance with Article 4 of the framework programme; information on financial aspects shall be included.

1. The Commission shall report **annually** on the overall progress of the implementation of the specific programme, in accordance with Article 4 of the framework programme; information on financial aspects shall be included.

Justification

Self-justifying.

Amendment 8
Article 8, paragraph 1

1. The Commission shall regularly report on the overall progress of the implementation of the specific programme,

1. The Commission shall regularly report on the overall progress of the implementation of the specific programme,

in accordance with Article 4 of the framework programme; information on financial aspects shall be included.

in accordance with Article 4 of the framework programme; information on financial aspects shall be included.

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

Justification

This procedure was introduced as a result of an agreement between the Committee on Budgets and the Commission in October 1999. The rapporteur considers that the procedure should be maintained to improve the follow-up of the use of funds in the specific programmes of FP6.

Amendment 9 Article 8, paragraph 2

2. The Commission shall arrange for the independent monitoring and assessment provided for in Article 6 of the framework programme to be conducted concerning the activities carried out in the fields covered by the specific programme.

2. The Commission shall arrange for the independent monitoring and assessment provided for in Article 6 of the framework programme to be conducted concerning the activities carried out in the fields covered by the specific programme, ***bearing in mind the contribution of the Sixth Framework Programme to the creation of the European Research Area.***

(This text modifies Amendment 6 of Fdr PR461618 according to the Compromise Amendment 4 of the 2nd reading of the research framework programme, report Caudron, adopted on 15.5.2002, A5-233/2002)

Justification

A link to the European Research Area should be installed in the Articles.

Amendment 10 Annex I, Scientific and technological objectives and broad lines of the activities

1. Focusing and Integrating Community research

1.1. ***Priority thematic areas of research***

1. Focusing and Integrating Community research

1.1. Thematic ***priorities***

- 1.1.1. Genomics and biotechnology for health
- i) Advanced genomics and its applications for health
 - ii) Combating major diseases
- 1.1.2. Information Society technologies
- 1.1.3. Nanotechnologies and nanosciences, knowledge-based multifunctional materials, and new production processes and devices
- 1.1.4. Aeronautics and space
- 1.1.5. Food quality and safety
- 1.1.6. Sustainable development, global change and ecosystems
- i) Sustainable Energy Systems
 - ii) Sustainable surface transport
 - iii) Global change and ecosystems
- 1.1.7. Citizens and governance in a knowledge-based society

- 1.2. Specific activities covering a wider field of research
- 1.2.1. **Supporting policies** and anticipating scientific and technological needs

The integrated research programme will comprise one comprehensive programme made up of the following seven distinct subsections:¹

- 1.1.1. **Life sciences**, genomics and biotechnology for health
- i) Advanced genomics and its applications for health
 - ii) Combating major diseases
- 1.1.2. Information Society technologies
- 1.1.3. Nanotechnologies and nanosciences, knowledge-based multifunctional materials, and new production processes and devices
- 1.1.4. Aeronautics and space
- 1.1.5. Food quality and safety
- 1.1.6. Sustainable development, global change and ecosystems
- i) Sustainable Energy Systems
 - ii) Sustainable surface transport
 - iii) Global change and ecosystems
- 1.1.7. Citizens and governance in a knowledge-based society

There is one single programme Committee, which meets in different composition corresponding to each of the subsections. Each subsection has its own coordination/management structure as well as its own expert advisory group and budget chapter.

The European Parliament will be regularly informed about the proceedings of the single programme committee and expert advisory groups and through annual programme implementation reports.

- 1.2. Specific activities covering a wider field of research
- 1.2.1. **Policy support** and anticipating scientific and technological needs

1.2.2. Horizontal research activities involving SMEs

1.2.3. Specific measures in support of international co-operation

2. Strengthening the foundations of the **European research area**

2.1. Support for the co-ordination of activities

2.2. Support for the coherent development of policies

1.2.2. Horizontal research activities involving SMEs

1.2.3. Specific measures in support of international co-operation

2. Strengthening the foundations of the **European Research Area**

2.1. Support for the co-ordination of activities

2.2. Support for the coherent development of policies

¹ ***Of which at least 15% for SMEs***

(This text modifies Amendment 7 of Fdr PR461618 according to the Compromise Amendment 30 of the 2nd reading of the research framework programme, report Caudron, adopted on 15.5.2002, A5-233/2002)

Justification

Experience with the Fifth Framework Programme has shown how important is participation by SMEs in research efforts. SMEs must, therefore, be able to play a full part in research efforts in all eight subsections of the integrated research priorities in the Sixth Framework Programme. A minimum percentage of 15% is necessary to that effect.

Amendment 11
Annex I, Section 1.1, paragraph 6

Specific targeted research projects and co-ordination actions, giving effect to the concept of a stairway of excellence and integration, as well as specific support actions, **may** also be used in the implementation of the thematic priorities.

Specific targeted research projects and co-ordination actions, giving effect to the concept of a stairway of excellence and integration, as well as specific support actions, **will** also be used in the implementation of the thematic priorities.

Justification

There should be an obligation, not only the possibility.

Amendment 12
Annex I, section 1.1.1, introductory part, paragraph 1

The sequencing of the human genome and many other genomes heralds a new age in human biology, offering unprecedented opportunities to improve human health and to stimulate industrial and economic activity. In making its contribution to realising these benefits, this theme will focus on integrating post-genomic research into the more established biomedical and biotechnological approaches, and will facilitate the integration of research capacities (both public and private) across Europe to increase coherence and achieve critical mass. Integrated multidisciplinary research, which enables a strong interaction between technology and biology, is vital in this theme for translating genome data into practical applications. In addition, an essential element will be to involve key stakeholders, for example, as appropriate industry, healthcare providers and physicians, policy makers, regulatory authorities, and patient associations, and experts on ethical matters, etc in implementing the theme. Gender equity in the research will also be ensured.¹⁸

¹⁸ Causes, clinical manifestation, consequences and treatment of disease and disorders often differ between women and men. Therefore, all activities funded within this thematic priority must take the possibility of gender differences into account in their research protocols, methodologies and analysis of results.

The sequencing of the human genome and many other genomes heralds a new age in human biology, offering unprecedented opportunities to improve human health and to stimulate industrial and economic activity. In making its contribution to realising these benefits, this theme will focus on integrating post-genomic research ***and related molecular mechanisms*** into the more established biomedical and biotechnological approaches, and will facilitate the integration of research capacities (both public and private) across Europe to increase coherence and achieve critical mass. Integrated multidisciplinary research, which enables a strong interaction between technology and biology, is vital in this theme for translating genome data into practical applications. In addition, an essential element will be to involve key stakeholders for example, as appropriate industry, healthcare providers and physicians, policy makers, regulatory authorities, and patient associations, and experts on ethical matters, etc in implementing the theme. Gender equity in the research will also be ensured.¹⁸

¹⁸ Causes, clinical manifestation, consequences and treatment of disease and disorders often differ between women and men. Therefore, all activities funded within this thematic priority must take the possibility of gender differences into account in their research protocols, methodologies and analysis of results.

Justification

Molecular mechanisms are omitted from the list and should be included.

Amendment 13

Annex I, section 1.1.1., Research priorities, point i), Fundamental knowledge and basic tools for functional genomics in all organisms, paragraph 1, indent 2, paragraph 1

- Structural genomics: The objectives are to enable researchers to determine, more effectively and at a higher rate than is currently feasible, the 3-D structure of proteins and other macromolecules, which is important for elucidating protein function and essential for drug design.

- Structural genomics **and related molecular mechanisms**: The objectives are to enable researchers to determine, more effectively and at a higher rate than is currently feasible, the 3-D structure of proteins and other macromolecules, which is important for elucidating protein function and essential for drug design.

Justification

Molecular mechanisms are omitted from the list and should be included.

Amendment 14

Annex I, section 1.1.1., Research priorities, point i), Fundamental knowledge and basic tools for functional genomics in all organisms, paragraph 1, indent 3, paragraph 1

- Comparative genomics and population genetics: The objectives are to enable researchers to use well-characterised model organisms for predicting and testing gene function and to take full advantage of specific population cohorts available in Europe to determine the relationship between gene function and health or disease.

- Comparative genomics **and related molecular mechanisms** and population genetics: The objectives are to enable researchers to use well-characterised model organisms for predicting and testing gene function and to take full advantage of specific population cohorts available in Europe to determine the relationship between gene function and health or disease.

Justification

Molecular mechanisms are omitted from the list and should be included.

Amendment 15

Annex I, section 1.1.1, research priorities, point i), paragraph 1, indent 5

- Multidisciplinary functional genomics approaches to basic biological processes: The objectives are to enable researchers to study fundamental biological processes by integrating the above innovative approaches.

- Multidisciplinary functional genomics **and related molecular mechanisms** approaches to basic biological processes : The objectives are to enable researchers to study fundamental biological processes by integrating the above innovative approaches.

Justification

Self-explanatory

Amendment 16

Annex I, section 1.1.1., Research priorities, point i), Applications of knowledge and technologies in the field of genomics and biotechnology for health, title

Applications of knowledge and technologies in the field of genomics and biotechnology for health

Applications of knowledge and technologies in the field of genomics **and related molecular mechanisms** and biotechnology for health

Justification

Molecular mechanisms are omitted from the list and should be included.

Amendment 17

Annex I, section 1.1.1, Research priorities, point i), Applications of knowledge and technologies in the field of genomics and biotechnology for health, indent 1

- Technological platforms for the-developments in the fields of new diagnostic, prevention and therapeutic tools: The objectives are to foster academic and industrial collaboration through

- Technological platforms for the-developments in the fields of new diagnostic, prevention and therapeutic tools: The objectives are to foster academic and industrial collaboration through

technological platforms where multidisciplinary approaches using cutting edge technologies arising from genomic research may contribute to health care progress and cost reduction through more precise diagnosis, individualised treatment and more efficient development pathways for new drugs and therapies, and other novel products of the new technologies.

Research will focus on: rational and accelerated development of new, safer, more effective drugs including pharmacogenomics approaches; development of new diagnostics; development of new in vitro tests to replace animal experimentation; development and testing of new preventive and therapeutic tools, such as somatic gene and cell therapies (in particular stem cell therapies) and immunotherapies; innovative research in post-genomics, which has high potential for application.

technological platforms where multidisciplinary approaches using cutting edge technologies arising from genomic research may contribute to health care progress and cost reduction through more precise diagnosis, individualised treatment and more efficient development pathways for new drugs and therapies, and other novel products of the new technologies. ***The priority is preventing and curing diseases. Diagnostic tools will be supported primarily if they are directly linked to therapeutic efforts.***

Support in this area will be granted for, among other activities: pharmacogenomic approaches; cell therapy, including therapy using adult stem cells and adult 'reprogrammed' somatic cells; 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 embryonal stem cell research and artificial insemination methods that could prevent the production of supernumerary embryos; support for innovative research on transgenic plants for the production of drugs, hormones and proteins for therapeutic purposes.

(This amendment is based on Amendment 66 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (fdr 463547))

Justification

The authors of Amendment 66 to the Caudron report (G. Bodrato, C. Ferrer, W. Langen, P. Liese, P. Pastorelli, P. Rübzig and J. Valdivielso de Cué) justified it at the time as follows:

This amendment incorporates first-reading Amendments 51, 54, 55, and 85, which were adopted unanimously by the House but have not been taken over by the Council.

As regards DNA analysis, prevention and therapeutic tools should be promoted as a matter of priority. To support diagnostic tools not intended for prevention or therapeutic purposes leads to problems of the kind posed by, for example, the DNA analyses carried out by insurance companies.

Research into alternatives to animal experiments has for many years been a priority of Parliament's. Research involving human embryonal stem cells is a controversial subject, but most Members take the view that it is admissible within strict limits. It is, however, generally agreed that the aims of this research should preferably be achieved by other means. The numerous embryos produced for artificial insemination but no longer needed for that purposes pose an ethical dilemma. Artificial insemination methods should be developed to avoid supernumerary embryos. At the Commission's December 2001 conference on stem cells there were reports of promising research in this area. Production of medicines from transgenic plants is an important future avenue for pharmacy and should be explicitly mentioned in the framework programme.

Amendment 18

Annex I, section 1.1.1., Research priorities, point i), Applications of knowledge and technologies in the field of genomics and biotechnology for health, paragraph 1, indent 1, paragraph 1

Technological platforms for the developments in the fields of new diagnostic, prevention and therapeutic tools: The objectives are to foster academic and industrial collaboration through technological platforms where multidisciplinary approaches using cutting edge technologies arising from genomic research may contribute to health care progress and cost reduction through more precise diagnosis, individualised treatment and more efficient development pathways for new drugs and therapies, and other novel products of the new technologies.

Technological platforms for the developments in the fields of new diagnostic, prevention ***(including vaccination to control infectious diseases and cancer)*** and therapeutic tools: The objectives are to foster academic and industrial collaboration through technological platforms where multidisciplinary approaches using cutting edge technologies arising from genomic research may contribute to health care progress and cost reduction through more precise diagnosis, individualised treatment and more efficient development pathways for new drugs and therapies, and other novel products of the new technologies.

Justification

Vaccinations and cancer should be specifically mentioned here as they represent important fields where biotechnology could be of great use.

Amendment 19

Annex I, section 1.1.1., Research priorities, point i), Applications of knowledge and technologies in the field of genomics and biotechnology for health, paragraph 1, indent 1,

paragraph 2

Research will focus on: rational and accelerated development of new, safer, more effective drugs including pharmacogenomics approaches; development of new diagnostics; development of new in vitro tests to replace animal experimentation; development and testing of new preventive and therapeutic tools, such as somatic gene and cell therapies (in particular stem cell therapies) and immunotherapies; innovative research in post-genomics, which has high potential for application.

Research will focus on: rational and accelerated development of new, safer, more effective drugs including pharmacogenomics approaches; development of new diagnostics; development of new in vitro tests to replace animal experimentation; development and testing of new preventive and therapeutic tools, such as somatic gene and cell therapies (in particular stem cell therapies) and immunotherapies; innovative research in post-genomics **and related molecular mechanisms**, which has high potential for application.

Justification

Molecular mechanisms are omitted from the list and should be included.

Amendment 20

Annex I, section 1.1.1, Research priorities, point i), Application of knowledge and technologies in the field of genomics and biotechnology for health, indent 1, paragraphs 2 and 2 a (new)

Research will focus on: rational and accelerated development of new, safer, more effective drugs including pharmacogenomics approaches; development of new diagnostics; development of new in vitro tests to replace animal experimentation; development and testing of new preventive and therapeutic tools, such as somatic gene and cell therapies (in particular stem cell therapies) and immunotherapies; innovative research in post-genomics, which has high potential for application.

Research will focus on: rational and accelerated development of new, safer, more effective drugs including pharmacogenomics approaches; development of new diagnostics; development of new in vitro tests to replace animal experimentation; development and testing of new preventive and therapeutic tools, such as somatic gene and cell therapies (in particular stem cell therapies) and immunotherapies; innovative research in post-genomics, which has high potential for application, ***including stem-cell therapies in neurological and neuromuscular disorders.***

In addition, research will also focus on: transgenic plants for the production of

drugs, proteins and hormones useful for therapeutic purposes.

Justification

Self-explanatory.

Amendment 21

Annex I, section 1.1.1, Research priorities, point ii), Application-oriented genomic approaches to medical knowledge and technologies, paragraph 1.

The strategic objective of this line is to develop improved strategies for the prevention and management of human disease and for living and ageing healthily. It will concentrate exclusively on integrating genomic approach through all relevant organisms into more established medical approaches for investigating disease and health determinants. The emphasis will be put on translational research aimed at bringing basic knowledge through to clinical application. Research actions will focus on the following:

The strategic objective of this line is to develop improved strategies for the prevention and management - ***using also advanced technologies for health*** - of human disease and for living and ageing healthily. It will concentrate exclusively on integrating genomic approach through all relevant organisms into more established medical approaches for investigating disease and health determinants. The emphasis will be put on translational research aimed at bringing basic knowledge through to clinical application. Research actions will focus on the following :

Justification

Self-explanatory.

Amendment 22

Annex I, section 1.1.1., Research priorities, point ii), Application-oriented genomic approaches to medical knowledge and technologies, paragraph 1, indent 3, paragraph 2

Research will focus on: understanding the molecular and cellular bases of brain function, damage, plasticity and repair, learning, memory and cognition; developing strategies for prevention and management of neurological and mental

Research will focus on: understanding the molecular and cellular bases of brain function, damage, plasticity and repair, learning, memory and cognition; developing strategies for prevention and management of neurological and mental

disorders and diseases.

disorders and diseases *and for understanding mechanisms underlying drug dependence as well as new strategies for prevention and treatment.*

Justification

It is important to understand the mechanisms in the human body that lead to dependence. This may enable new strategies for preventive treatment to be developed.

Amendment 23

Annex I, section 1.1.1, Research priorities, point ii), Application-oriented genomic approaches to medical knowledge and technologies, indent 1, paragraph 2 a, indents 1-7 (new)

In particular, priority lines of research in cardiovascular diseases will focus on:

- Gene-related mechanisms underlying atherosclerotic plaque formation and progression.*
- Genetic polymorphisms in cardiovascular diseases.*
- Role of stem cells in the therapy of cardiomyopathies.*
- Advanced diagnostic nanotechnologies for prevention and therapy of myocardial infarct, cerebral ictus and atherosclerotic disorders.*
- Gene-expression of endothelial growth factors and new strategies for therapeutic neoangiogenesis and vasculogenesis in ischaemic pathologies.*
- Mechanisms of coronary instability in acute coronary syndrome by using gene-expression profiling and proteomics.*
- Advanced innovative technologies in cardiosurgery.*

Justification

Self-explanatory.

Amendment 24

Annex I, section 1.1.1, Research priorities, point ii), Application-oriented genomic approaches to medical knowledge and technologies, indent 1, paragraph 2 b, indent 1-6 (new)

In addition, priority lines of research in diabetes will focus on:

- Experimental animal models to identify maps of genetic and post-genomic alterations of mellitus diabetes and to create "humanised" animal models of diabetes.

- Extended phenotypic characterisation of specific populations.

- Role of cardiovascular system in the progression of type 2 diabetes in patients with cardiovascular complications.

- Characterisation of genetic sets in diabetes-affected patients as far as the therapeutic and safety profile of drugs is concerned (pharmacogenomics).

- New therapeutic approaches (gene therapy, stem cells, transplantation) to repair tissue damage due to the diabetes progression.

- Creation of tissue, cell and DNA banks from diabetic donors.

Justification

Self-explanatory.

Amendment 25

Annex I, section 1.1.1, Research priorities, point ii), Application-oriented genomic approaches to medical knowledge and technologies, indent 3, paragraph 2

Research will focus on: understanding the molecular and cellular bases of brain function, damage, plasticity and repair, learning, memory and cognition; developing strategies for prevention and management of neurological and mental disorders and diseases.

Research will focus on: understanding the molecular and cellular bases of brain function, damage, plasticity and repair, learning, memory and cognition; developing strategies for prevention and management of neurological and mental disorders and diseases ***and for understanding mechanisms underlying drug dependence as well as new strategies for prevention and treatment of neuromuscular diseases; genetics of rare neurological diseases.***

Justification

Self-explanatory.

Amendment 26

Annex I, section 1.1.1. Research priorities, point ii), Combating cancer, paragraph 1

The objective is to ***develop*** improved patient-oriented strategies, from prevention to diagnosis and treatment, ***for combating cancer***. The research will therefore concentrate on translating the ***new*** knowledge being created by genomics and other fields of basic research into applications that improve clinical practice and public health.

The objective is to ***combat cancer by developing*** improved patient-oriented strategies, from prevention to diagnosis and treatment. The research will therefore concentrate on translating the knowledge being created by genomics and other fields of basic research into applications that improve clinical practice and public health.

Justification

The text proposed makes it clear what the aim is.

Amendment 27

Annex I, section 1.1.1., Research priorities, point ii), Combating cancer, paragraph 2

The patient-oriented approach will include **three interlinked** components. Research will focus on:

- Establishing facilities for the exploitation of research on cancer in Europe; encouraging the development of evidence-based guidelines for good clinical practice and improved public health strategies by accelerating the **translation** of existing research **results** into applications.

- Supporting clinical research, particularly clinical trials, aimed at validating new and improved interventions.

- Supporting translational research aimed at bringing basic knowledge through to applications in clinical practice and public health.

The patient-oriented approach will include **the following** components **to be realised within the structure of FP6 (integrated projects, networks of excellence)**.

Research will focus on:

- The support of basic and translational cancer research addressing issues related to more effective and earlier diagnosis of cancer, to more effective ways of treating cancer patients with minimal side effects and to cancer prevention related to Europeans and their life-styles as it affects the genome and susceptibility to cancer.

- The development of improved health strategies by accelerating the **implementation** of existing research **findings** into **clinical** applications.

- Better co-ordination of research efforts and faster diffusion of research results, especially their translation from bench to bedside.

- General issues of cancer such as “cancer as a European health problem” (specifics: ageing and cancer, regional differences, psychosocial aspects, palliative care and guidance to support groups).

Justification

Psychosocial aspects and palliative care should be included.

The proposed amendment gives a more precise picture of what translational cancer research

should aim to achieve. Ultimately, it is about getting as quickly as possible to the stage of clinical applications and, in the event of proven success, developing new medicines and treatments.

Amendment 28

Annex I, section 1.1.1, Research priorities, point ii), Confronting the major communicable diseases linked to poverty, paragraph 2

Research will focus on: developing promising candidate interventions (vaccines, therapies and HIV microbicides) against the target diseases by sponsoring research over the full spectrum from basic molecular research, taking advantage of microbial genomics, through to pre-clinical testing and proof-of-principle; establishing a clinical trials programme to unite and support Europe's clinical trial activities specifically targeted at interventions for use in developing countries; establishing an AIDS Therapy Trials Network in Europe to improve the coherence and complementarity of clinical trials of AIDS therapies for European use.

Research will focus on: developing promising candidate interventions (vaccines, therapies and HIV microbicides **and evaluation criteria on the various interventions and public health impact**) against the target diseases by sponsoring research over the full spectrum from basic molecular research, taking advantage of microbial genomics, through to pre-clinical testing and proof-of-principle; establishing a clinical trials programme to unite and support Europe's clinical trial activities specifically targeted at interventions for use in developing countries; establishing an AIDS **Prevention (vaccines) and** Therapy Trials Network in Europe to improve the coherence and complementarity of clinical trials of AIDS therapies for European use.

Justification

Self-explanatory.

Amendment 29

Annex I, section 1.1.2, paragraph 3

Successes, like those achieved in Europe in mobile communications or consumer electronics, will not be repeated unless a real effort is made to achieve critical mass in key domains of IST research. The actions will therefore mobilise the community of

Successes, like those achieved in Europe in mobile communications or consumer electronics **and photonics**, will not be repeated unless a real effort is made to achieve critical mass in key domains of IST research. The actions will therefore mobilise

researchers around medium to long term objectives, facilitating the integration of public and private effort on a European scale, to build essential competencies and strengthen innovation. They will involve high-risk and long term RTD such as the development of the next generation of mobile and wireless systems beyond 3G.

the community of researchers around medium to long term objectives, facilitating the integration of public and private effort on a European scale, to build essential competencies and strengthen innovation. They will involve high-risk and long term RTD such as the development of the next generation of mobile and wireless systems beyond 3G.

Justification

Self-explanatory.

Amendment 30

Annex I, section 1.1.2, Research priorities, point i), indent 2, paragraph 3

In the area of mobility, research will focus on vehicle infrastructure and portable systems to provide integrated safety, comfort and efficiency and allow for the provision of advanced logistics infomobility and location based services. Research in the area of environment will focus on knowledge-based systems for natural resource management and for risk prevention and crisis management including humanitarian mine clearance. In the area of leisure, research will focus on intelligent and mobile systems and application for entertainment and tourism. For cultural heritage, the effort will focus on intelligent systems for dynamic access to and preservation of tangible and intangible cultural and scientific resources.

In the area of mobility, research will focus on vehicle infrastructure and portable systems to provide integrated safety, comfort and efficiency and allow for the provision of advanced logistics infomobility and location based services. Research in the area of environment will focus on knowledge-based systems for natural resource management and for risk prevention and crisis management including humanitarian mine clearance. In the area of leisure, research will focus on intelligent and mobile systems and application for entertainment and tourism. For ***artistic, archaeological and*** cultural heritage, the effort will focus on intelligent systems for dynamic access to and preservation of tangible and intangible cultural and scientific resources. ***In addition research will focus on:***

- Interactive and intelligent systems for health, which allow medical doctors and health professionals who have completed their studies to continue to keep their knowledge up to date, as well as being used for pharmacovigilance.

- New technologies for valorisation of artistic, archaeological and cultural heritage.

Justification

Self-explanatory.

Amendment 31

Annex I, section 1.1.2, Research priorities, point i), indent 2 a (new)

- Innovations to reduce the environmental impact of ICTs at all stages, manufacturing, use and end of product life.

(This amendment is based on Amendment 17 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 17 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 32

Annex I, section 1.1.2, Research priorities, point ii), indent 1, paragraph 1

- Communication and network technologies:
The objective is to develop the new generations of mobile and wireless systems and networks that allow optimal service connection anywhere as well as all-optical

- Communication and network technologies:
The objective is to develop the new generations of mobile and wireless systems and networks that allow optimal service connection anywhere as well as all-optical

networks to increase network transparency and capacity, solutions to improve network interoperation and adaptability, and technologies for personalised access to networked audio-visual systems.

technologies including display systems to increase network transparency and capacity, ***including the further rapid development of the next-generation pan-European gigabit research network – GEANT – into a network with a capacity of 100 Gb/s,*** solutions to improve network interoperation and adaptability, and technologies for personalised access to networked audio-visual systems.

(This amendment is based on Amendment 16 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 16 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 33

Annex I, section 1.1.2, Research priorities, point iii), indent 1

- Micro, Nano and Opto-electronics. The objective is to reduce the cost, increase the performance and improve reconfigurability, scalability, adaptability and self-adjusting capabilities of micro-, nano- and opto-electronic components and systems-on-a-chip.

Research will focus on pushing the limits of CMOS process and equipment technologies and enhancing device functionality, performance and integration of functions. It will address alternative process technologies, device types, materials and architectures to meet demands of communication and computing. Particular emphasis will be put on RF, mixed-signal and low power design. **Work** on optical, opto-electronic, and photonic functional components, will address devices and systems for information processing, communication, switching, storage, sensing

- Micro, Nano and Opto-electronics **and photonics** :The objective is to reduce the cost, increase the performance and improve reconfigurability, scalability, adaptability and self-adjusting capabilities of micro-, nano- and opto-electronic components and systems-on-a-chip.

Research will focus on pushing the limits of CMOS process and equipment technologies and enhancing device functionality, performance and integration of functions. It will address alternative process technologies, device types, materials and architectures to meet demands of communication and computing. Particular emphasis will be put on RF, mixed-signal and low power design. **Research and development** on optical, opto-electronic, and photonic functional components, will address devices and systems for information processing, communication, switching,

and imaging. Research on electron based nano-devices, as well as on molecular electronics devices and technologies, will target those that promise broad functionality and have integration- and mass fabrication potential.

storage, sensing and imaging. Research on electron based nano-devices, as well as on molecular electronics **and photonic** devices and technologies, will target those that promise broad functionality and have integration- and mass fabrication potential.

Justification

Self-explanatory.

Amendment 34

Annex I, section 1.1.2., Research priorities, point iii), indent 2, paragraph 1a (new)

Developing mobile, wireless, optical and broadband communication infrastructures and computing technologies that are reliable, pervasive and can be adapted to accommodate new applications and services. They will lead to the next generation Internet and will have to support the exchange of increasingly large amounts of information. Especially the development of Internet Protocol version Six (IPv6) needs further stimulation. In the next ten years, it is expected that the average household will be managing terabytes of photos, music, videos, software and documents.

Justification

More concrete examples of what is envisaged.

Amendment 35

Annex I, section 1.1.2, Research priorities, point iii), indent 2, paragraph 2

Research will focus on new applications and functions that take advantage of multi-disciplinary interactions (electronics, mechanics, chemistry, biology, etc.) combined with the use of micro and nano-structures and new materials. The aim is to develop innovative, cost-effective and reliable microsystems and reconfigurable, miniaturised subsystem modules. Work will also include low cost, information-rich and higher resolution displays as well as advanced sensors including low cost vision and bio-metric sensors, and haptic devices. Work on nano-devices and nano-systems will address the exploitation of basic phenomena, processes and structures that promise novel or improved sensing or actuating functionality as well as their integration and fabrication.

Research will focus on new applications and functions that take advantage of multi-disciplinary interactions (electronics, **photonics**, mechanics, chemistry, biology, etc.) combined with the use of micro and nano-structures and new materials. The aim is to develop innovative, cost-effective and reliable microsystems and reconfigurable, miniaturised subsystem modules. Work will also include low cost, information-rich and higher resolution displays as well as advanced sensors including low cost vision and bio-metric sensors, and haptic devices. Work on nano-devices and nano-systems will address the exploitation of basic phenomena, processes and structures that promise novel **light-emitting properties and injection mechanisms**, or improved sensing or actuating functionality as well as their integration and fabrication.

Justification

Self-explanatory.

Amendment 36

Annex I, section 1.1.2, Research priorities, point iii), indent 2 b (new)

- Research into and development of new technologies for anti-personnel mine clearance purposes.

(This amendment is based on Amendment 18 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 18 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments

destined for the Specific Programmes.

Amendment 37

Annex I, section 1.1.2, Research priorities, point iv), indent 2, paragraph 3

Work will also address technologies for multilingual and multicultural access and communication that support timely and cost effective *provisions* of interactive information-rich services meeting the personal, professional and business requirements of all members of linguistically and culturally diverse communities.

Work will also address technologies for multilingual and multicultural access and communication that support timely and cost effective *provision* of interactive information-rich services meeting the personal, professional and business requirements of all members of linguistically and culturally diverse communities. ***In addition, research will address interfaces for computer-aided diagnostics, planning and monitoring, including interfaces and software platforms for recovery of functions, home care, tele-monitoring and tele-rehabilitation.***

Justification

Self-explanatory

Or. en

Amendment 38

Annex I, section 1.1.3., Research priorities, point (i), paragraph 1

Nanotechnologies represent a new approach to materials science and engineering. Europe enjoys a strong position in the nanosciences, that needs to be translated into a real competitive advantage for European industry. The objective is twofold: to promote the creation of an RTD-intensive European nanotechnology related industry, and to promote the uptake of nanotechnologies in existing industrial sectors. Research may be long-term and high

Nanotechnologies ***and nanosciences*** represent a new approach to materials science and engineering. Europe enjoys a strong position in the nanosciences, that needs to be translated into a real competitive advantage for European industry. The objective is twofold: to promote the creation of an RTD-intensive European nanotechnology related industry, and to promote the uptake of nanotechnologies in existing industrial sectors. Research may be

risk, but will be oriented towards industrial application. An active policy of encouraging industrial companies and SMEs, including start-ups, will be pursued, amongst others through the promotion of strong industry/research interactions in consortia undertaking projects with substantial critical mass.

long-term and high risk, but will be oriented towards industrial application. An active policy of encouraging industrial companies and SMEs, including start-ups, will be pursued, amongst others through the promotion of strong industry/research interactions in consortia undertaking projects with substantial critical mass.

Justification

Self-explanatory.

Amendment 39

Annex I, section 1.1.3., Research priorities, point (i), indent 1, paragraph 2

Research will focus on: molecular and mesoscopic scale phenomena; self-assembling materials and structures; molecular and bio-molecular mechanisms and engines; multi-disciplinary and new approaches to integrate developments in inorganic, organic and biological materials and processes.

Research will focus on: molecular and mesoscopic scale phenomena; self-assembling materials and structures; molecular and bio-molecular mechanisms and engines; multi-disciplinary and new approaches to integrate developments in inorganic, organic and biological materials and processes; ***understanding of the chemico-physical phenomena which form the basis for the sensing system used by the new nano-structured materials.***

Justification

Self-explanatory.

Amendment 40

Annex I, section 1.1.3., Research priorities, point (i), indent 2

- Nanobiotechnologies: The objective is to support research into the integration of biological and non-biological entities, opening new horizons in many applications,

- Nanobiotechnologies: The objective is to support research into the integration of biological and non-biological entities, opening new horizons in many applications,

such as for processing and for medical **and** environmental analysis systems.

Research will focus on: lab-on-chip, interfaces to biological entities, surface modified nano-particles, advanced drug delivery and other areas of integrating nano-systems or nanoelectronics with biological entities; processing, manipulation and detection of biological molecules or complexes, electronic detection of biological entities, micro-fluidics, promotion and control of growth of cells on substrates.

such as for processing and for medical, environmental **and food** analysis systems.

Research will focus on: lab-on-chip, interfaces to biological entities, surface modified nano-particles, advanced drug delivery and other areas of integrating nano-systems or nanoelectronics with biological entities; processing, manipulation and detection of biological molecules or complexes, electronic detection of biological entities, micro-fluidics, promotion and control of growth of cells on substrates; **sensing systems based on the use of biomolecules and biocompatible components.**

Justification

Self-explanatory.

Amendment 41

Annex I, section 1.1.3, Research priorities, point i), indent 2, paragraph 2

Research will focus on: lab-on-chip, interfaces to biological entities, surface modified nano-particles, advanced drug delivery and other areas of integrating nano-systems or nanoelectronics with biological entities; processing, manipulation and detection of biological molecules or complexes, electronic detection of biological entities, micro-fluidics, promotion and control of growth of cells on substrates.

Research will focus on: lab-on-chip, interfaces to biological entities, surface modified nano-particles, advanced drug delivery and other areas of integrating nano-systems or nanoelectronics with biological entities; processing, manipulation and detection of biological molecules or complexes, electronic detection of biological entities, micro-fluidics, promotion and control of growth **and polarisation** of cells on substrates, **differentiation of stem cell, tissue repair and engineering, artificial organs.**

Justification

Self-explanatory

Amendment 42

Annex I, section 1.1.3., Research priorities, point (i), indent 3, paragraph 2

Research will focus on: nano-structured alloys and composites, advanced functional polymeric materials, **and** nano-structured functional materials.

Research will focus on: nano-structured alloys and composites, advanced functional polymeric materials, nano-structured functional materials, **and the embedding of ordered molecular systems or nano-particles in suitable substrates.**

Justification

Self-explanatory.

Amendment 43

Annex I, section 1.1.3, Research priorities, point i), indent 5, paragraph 2

Research will focus on: computational **modelling**, advanced production technologies; development of innovative materials **with improved characteristics**

Research will focus on: computational **models**, advanced production technologies, **including high quality optical coatings from soft x-rays to IR and including image-guided and computer-assisted systems for neurosurgery and radiotherapy, wearable sensors for patient monitoring and man-machine interface**; development of innovative materials.

Justification

Self-explanatory.

Amendment 44

Annex I, section 1.1.3, Research priorities, point i), indent 5, paragraph 2

Research will focus on: computational modelling, advanced production technologies; development of innovative materials with improved characteristics.

Research will focus on: computational modelling, advanced production technologies; development of innovative materials with improved characteristics; **development of new in-vitro tests to replace animal experiments.**

Justification

In the two readings of the 6th Framework Programme, the European Parliament has adopted several amendments concerning alternative test methods on animals. It is therefore logical to bring these amendments into the text of the Specific Programmes.

Amendment 45

Annex I, section 1.1.3, Research priorities, point ii), heading

Knowledge-based Multifunctional Materials

Knowledge-based **and/or** Multifunctional Materials **and/or materials with special properties**

(This amendment is based on Amendment 19 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 19 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 46

Annex I, section 1.1.3, Research priorities, point ii), paragraph 1

New, high knowledge-content materials, providing new functionalities and improved performance, will be critical drivers of innovation in technologies, devices and systems, benefiting sustainable development and competitiveness in sectors such as transport, energy, medicine, electronics, and construction. To assure Europe's strong positions in emerging technology markets, which are expected to grow by one or two orders of magnitude within the next decade, the various actors need to be mobilised through leading edge RTD partnerships, including high risk research and through integration between research on materials and industrial applications.

New, high knowledge-content materials, providing new functionalities and improved performance, will be critical drivers of innovation in technologies, devices and systems, benefiting sustainable development and competitiveness in sectors such as transport, energy, medicine, electronics, **photonics** and construction. To assure Europe's strong positions in emerging technology markets, which are expected to grow by one or two orders of magnitude within the next decade, the various actors need to be mobilised through leading edge RTD partnerships, including high risk research and through integration between research on materials and industrial applications.

Justification

Self-explanatory

Amendment 47

Annex I, section 1.1.3., Research priorities, point (ii), indent 1, paragraph 2

Research will focus on: long-term, trans-disciplinary and high industrial risk activities to design and develop new structures with defined characteristics; development of supra-molecular and macromolecular engineering, focusing on the synthesis, exploitation and potential use of novel highly complex molecules and ***their compounds***.

Research will focus on: long-term, trans-disciplinary and high industrial risk activities to design and develop fifth structures with defined characteristics; development of supra-molecular and macromolecular engineering, focusing on the synthesis, exploitation and potential use of novel highly complex molecules and ***new functional materials derived from them***.

Justification

Self-explanatory.

Amendment 48

Annex I, section 1.1.3, Research priorities, point ii), indent 2, paragraph 1

Technologies associated with the production, transformation and processing of knowledge-based multifunctional materials, and biomaterials: The objective is the sustainable production of new “smart” materials with tailor-made functionalities and for building up macro-structures. These novel materials, serving multisectorial applications should incorporate in-built characteristics to be exploited under predetermined circumstances as well as enhanced bulk properties or barrier and surface characteristics for higher performance.

Technologies associated with the production, transformation and processing of knowledge-based ***and/or*** multifunctional materials ***and/or materials with special properties, for instance highly stress-resistant materials***, and biomaterials: The objective is the sustainable production of new “smart” materials with tailor-made functionalities and for building up macro-structures. These novel materials, serving multisectorial applications should incorporate in-built characteristics to be exploited under predetermined circumstances as well as enhanced bulk properties or barrier and surface characteristics for higher performance.

(This amendment is based on Amendment 20 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 20 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 49

Annex I, section 1.1.3., Research priorities, point (ii), indent 2

- Technologies associated with the production, transformation and processing of **knowledge-based** multifunctional materials, and biomaterials: *The* objective is the **sustainable production** of new "smart" materials with **tailor-made** functionalities and for building up macro-structures. These novel materials, serving multisectorial applications should **incorporate in-built** characteristics **to be exploited under predetermined** circumstances as well as **enhanced** bulk properties or **barrier and** surface characteristics **for** higher performance.

- Technologies associated with the production, transformation and processing of **self-instructing** multifunctional materials, and biomaterials: *the* objective is the **development** of new "smart" materials with **special** functionalities and for building up macro-structures. These novel materials, serving multisectorial applications should **possess** characteristics **which are apparent in specific** circumstances, as well as **exceptional** bulk properties or surface characteristics **which make it possible to achieve a** higher performance.

Research will focus on: new materials; engineered and self-repairing materials; crosscutting technologies including surface science and engineering.

Research will focus on: new *synthetic* materials; engineered and self-repairing materials; crosscutting technologies including surface science and engineering.

Justification

Self-explanatory.

Amendment 50

Annex I, section 1.1.3., Research priorities, point (ii), indent 3, paragraph 2

Research will focus on: *inherent aspects of* optimising materials *design, processing* and tools; testing, validation and up-scaling; incorporation of life-cycle approaches, obsolescence, *bio-compatibility* and *eco-efficiency*.

Research will focus on: optimising *the design and processing of* materials and tools *made of these materials*; testing, validation and up-scaling; incorporation of life-cycle approaches, obsolescence, *and their bio- and eco-compatibility*.

Justification

Self-explanatory.

Amendment 51

Annex I, section 1.1.3., Research priorities, point (iii), indent 1, paragraph 1

- Development of new processes and flexible and intelligent manufacturing systems. The objective is to *encourage industry's* transition towards *more knowledge-based production and systems* organisation and to considering production from a more holistic perspective, encompassing not only hardware and software, but also *people* and the way in which they learn and share knowledge.

- Development of new processes and flexible and intelligent manufacturing systems. The objective is to *promote the* transition *from production* towards *a form of* organisation *with a greater focus on knowledge* and to considering production from a more holistic perspective, encompassing not only hardware and software, but also *workers* and the way in which they learn and share knowledge.

Justification

Self-explanatory.

Amendment 52

Annex I, section 1.1.3., Research priorities, point (iii), indent 3, paragraph 1

- Optimising the life-cycle of industrial systems, products and services. Products and production should become increasingly life-cycle and service oriented, in addition to the requirements of intelligence, cost-effectiveness, safety and ***cleanliness***. The key challenge is therefore new industrial concepts based on life-cycle approaches, which must allow new products, organisational innovation and the efficient management of information and its transformation into useable knowledge within the value chain.

- Optimising the life-cycle of industrial systems, products and services. Products and production ***processes*** should become increasingly life-cycle and service oriented, in addition to the requirements of intelligence, cost-effectiveness, safety and ***eco-compatibility***. The key challenge is therefore new industrial concepts based on life-cycle approaches, which must allow new products, organisational innovation and the efficient management of information and its transformation into useable knowledge within the value chain.

Justification

Self-explanatory.

Amendment 53

Annex I, section 1.1.4, Research priorities, point i), indent 1, paragraph 1

- Strengthening competitiveness: The objective is to enable the 3 sectors of the manufacturing industry: airframe, engines and equipment, to increase their competitiveness, by reducing, in the short and long term, respectively, aircraft development costs by 20% and 50%, and aircraft direct operating cost by 20% and 50%, and improving passenger comfort.

- Strengthening competitiveness: The objective is to enable the 3 sectors of the manufacturing industry: airframe, engines and equipment, to increase their competitiveness, by reducing, in the short and long term, respectively, aircraft development costs by 20% and 50%, and aircraft direct operating cost by 20% and 50%, and improving passenger comfort. ***In addition, the objective is to increase the competitiveness of the European industry with regard to commercial aircraft***

(including regional and business aeroplanes and helicopters), engines and equipment.

Justification

Self-explanatory

Amendment 54

Annex I, section 1.1.4, Research priorities, point ii) indent 3 a (new)

- Space science and study of the solar system, including research on the sun and the climate and geology of the earth.

(This amendment is based on Amendment 24 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 24 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 55

Annex I, section 1.1.5, first indent

This priority area is aimed at assuring the health and well-being of European citizens through a better understanding of the influence of food intake and environmental factors on human health and to provide them with safer, high-quality and health-promoting foods, including seafoods, relying on fully controlled and integrated production systems originating in agriculture, aquaculture and fisheries. By re-addressing the classical approach 'from farm to fork', this thematic priority area aims at ensuring

This priority area is aimed at assuring the health and well-being of European citizens through a better understanding of the influence of food intake and environmental factors on human health and to provide them with safer, high-quality and health-promoting foods, including seafoods, relying on fully controlled and integrated production systems originating in agriculture, aquaculture and fisheries. By re-addressing the classical approach 'from farm to fork', this thematic priority area aims at ensuring

that consumer protection is the main driver for developing new and safer food and feed production chains, i.e. 'from fork to farm', relying **in particular** on **biotechnology tools** taking into account the latest results of genomics research.

that consumer protection is the main driver for developing new and safer food and feed production chains, i.e. 'from fork to farm', relying on **both innovation from** biotechnology (taking into account the latest results of genomics research) **and research and innovation in the area of integrated and organic agriculture.**

Justification

In food and agricultural research biotechnology and organic farming should not be regarded as being at odds with one another. Creative combinations of the most recent technology and research and experience from organic farming can bring about desirable progress. This amendment seeks to bridge the gap between the Graefe zu Baringdorf amendment and the Commission proposal.

Amendment 56 Annex I, section 1.1.5, paragraph 1

This priority area is aimed at **assuring the health and well-being of European citizens through** a better understanding of the influence of food intake **and** environmental factors on human health and to provide them with **safer, high quality and health-promoting** foods, including seafoods, relying on fully controlled and integrated production systems originating in agriculture, aquaculture and fisheries. By re-addressing the classical approach 'from farm to fork', this thematic priority area aims at ensuring that consumer protection is the main driver for developing new and safer food and feed production chains, i.e. 'from fork to farm', relying in particular on biotechnology tools taking into account the latest results of genomics research.

This priority area is aimed at **protecting human health and ensuring food safety in the European Union and the applicant countries by:**

- a better understanding of the influence of food intake, environmental factors **and**

doping practices on human health and to provide them with *safe, healthy and quality* foods including seafoods *in line with consumer requirements, habits and perceptions*, relying on fully controlled and integrated production systems originating in agriculture, aquaculture and fisheries,

- 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, working conditions or factors in the work environment.

By re-addressing the classical approach ‘from farm to fork’, this thematic priority area aims at ensuring that consumer protection is the main driver for developing new and safer food and feed production chains, i.e. ‘from fork to farm’, relying in particular on biotechnology tools taking into account the latest results of genomics research.

Health and safety are important not only where food is concerned, but also as regards work. Safe production processes and working conditions to protect health are subjects that could be dealt with in a joint approach.

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.

(This amendment is based on Amendments 26, 27 and 28 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendments 26, 27 and 28 to the Caudron report on the 6th Framework Programme. These amendments were adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 57

Annex I, section 1.1.5, introductory part, paragraph 1

This priority area is aimed at assuring the health and well-being of European citizens through a better understanding of the influence of food intake and environmental factors on human health and to provide

This priority area is aimed at assuring the health and well-being of European citizens through a better understanding of the influence of food intake and environmental factors on human health and to provide

them with safer, high-quality and health-promoting foods, including seafoods, relying on fully controlled and integrated production systems originating in agriculture, aquaculture and fisheries. By re-addressing the classical approach ‘from farm to fork’, this thematic priority area aims at ensuring that consumer protection is the main driver for developing new and safer food and feed production chains, i.e. ‘from fork to farm’, relying in particular on biotechnology tools taking into account the latest results of genomics research.

them with safer, high-quality and health-promoting foods, including seafoods, relying on fully controlled and integrated production systems originating in agriculture, aquaculture and fisheries. By re-addressing the classical approach ‘from farm to fork’, this thematic priority area aims at ensuring that consumer protection is the main driver for developing new and safer food and feed production chains, i.e. ‘from fork to farm’, relying in particular on biotechnology tools taking into account the latest results of genomics research. ***The principle of ‘zero tolerance’ must always apply in relation to any matter concerning the protection of public health.***

Justification

Food safety is an essential subsection. It is important, in research, that the principle of zero tolerance is taken as the starting point.

Amendment 58

Annex I, section 1.1.5, Research priorities, indent 2, paragraph 2 a, indents 1-4 (new)

Research will also focus on physical, chemical and biological agents used by terrorists. In addition, research will focus on:

- Role of trace chemical substances.***
- Health risks linked to food contamination.***
- Interaction between diet and saprophytic micro-organisms.***
- Biotechnological application in crop and animal improvement and/or protection.***

Justification

Self-explanatory

Amendment 59

Annex I, section 1.1.5, Research priorities, indent 4, paragraph 1

Methods of analysis, detection and control: The objective is to contribute to the development, improvement, validation and harmonisation of reliable and cost-effective **sampling and measurement** strategies for chemical contaminants and existing or emerging pathogenic micro-organisms (such as viruses, bacteria, yeasts, fungi, parasites, and new agents of the prion type **including development of** ante mortem diagnostic tests for BSE and scrapie) **so as to control the safety of the food and feed supply and ensure accurate data for risk analysis.**

Methods of analysis, detection and control: The objective is to contribute to the development, improvement, validation and harmonisation of reliable and cost-effective strategies for **sampling and measuring** chemical contaminants and **sequencing** existing or emerging pathogenic **and non-pathogenic** micro-organisms (such as viruses, bacteria, **mould**, yeasts, fungi, parasites, and new agents of the prion type), **which will make it possible to develop tools to predict the emergence of the pathogenicity of micro-organisms, placing special emphasis on the introduction of HACCP (Hazard Assessment Critical Control Points) throughout the food chain, 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.

(This amendment is based on Amendment 30 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 30 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 60

Annex I, section 1.1.5, Research priorities, indent 4, paragraph 2 a. indents 1-5 (new)

Research will also focus on:

- Novel food profiling techniques (genomics, proteomics, chemical fingerprinting) in order to evaluate the influence of new technologies in food processing and/or to determine new or unexpected compositional/nutritional properties of newly inserted genes or of newly expressed substances.***
- New technologies for authenticity testing of foods with protected/specified geographical origin (e.g. NMR coupled with more routinary analytical techniques).***
- Development, improvement, set up of methods to control chemical, biological conditions and allergenic risk along the entire food chain from animal feed to consumer to detect alimentary fraud related to improper use of preservation, sterilisation and reduction of specific pathogens technologies.***
- Harmonisation, development of reliable methods to detect irradiated food in respect of labelling regulations and different countries' legislations.***
- Development and/or improvement of analytical methods for in vivo/in vitro detection of effects of endocrine disrupting chemicals entering the food chain.***

Justification

Self-explanatory.

Amendment 61

Annex I, section 1.1.5, Research priorities, indent 5, paragraph 2 a, indents 1 and 2 (new)

Research will also focus on:

- Merging of traditional food manufacturing with new technological tools for standardisation/optimisation purposes (e.g.: use of new biotechnological tools such as clotting enzymes of fermentative origin, or non-starter microorganisms in cheese ripening and manufacturing).

- Organic production extension to manufactured products (oenology and fruit juices, infant foods, bakery products etc.).

Justification

Self-explanatory.

Amendment 62

Annex I, section 1.1.5, Research priorities, indent 6, paragraph 1a (new)

Greater research into substances contained in animal feed is an essential element of food safety policy, in particular with a view to setting thresholds considered tolerable from a health point of view.

Justification

Recent food crises have shown the importance of research into the substances contained in animal feed. EU funding should contribute towards establishing thresholds for such substances from the point of view of public health.

Amendment 63
Annex I, section 1.1.5, Research priorities, indent 6 a (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.

(This amendment is based on Amendment 31 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 31 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 64
Annex 1, 1.1.5, research priorities, indent 7 a (new)

- The healthy crop: The objective 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 and a wider consumer choice.

Research will focus on: factors and processes that affect the chemical composition of the plant, such as altered metabolism, plant-environment interactions and natural variation investigating biological processes and linking to genomics technologies on plants including Arabidopsis and model cereals, legumes and vegetables.

Justification

The current FP6 specific programme proposal emphasises in its 7 research priorities safety and health risks. Its major shortcoming is that it does not emphasise the impact of food quality, for instance on consumer choice and the improvement of human health.

The aim of this research priority 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:

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.

Amendment 65

Annex I, section 1.1.5, Research priorities, indent 7 a (new)

- Research in environmental safety particularly in the health impact of environmental pollutants of biological, chemical, physical (e.g. radiations, electromagnetic fields) nature and identification of new instruments for prevention and therapy of pollutant induced disease.

(This amendment is based on Amendment 32 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 32 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 66
Annex I, section 1.1.5, Research priorities, indent 7 b (new)

- Control of health risks at work.

(This amendment is based on Amendment 33 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 33 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 67
Annex I, section 1.1.6, paragraph 1

The Treaty confirms Sustainable Development as a central objective of the European Community; this was emphasised by the recent European Council in Göteborg. In this context, global change, energy security, sustainable transport, sustainable management of Europe's natural resources, and their interaction with human activities motivate this research priority theme. The activities carried out within this priority aim at strengthening the scientific and technological capacities needed for Europe to be able to implement a sustainable development model ***in the short and in the long term, integrating its social, economic and environmental dimensions***, and make a significant contribution to the international efforts to ***mitigate or even to reverse current adverse trends***, to understand and control global change and preserve the equilibrium of ecosystems.

The Treaty confirms Sustainable Development as a central objective of the European Community; this was emphasised by the recent European Council in Göteborg. In this context, global change, energy security, sustainable transport, sustainable management of Europe's natural resources, and their interaction with human activities motivate this research priority theme. The activities carried out within this priority aim at strengthening the scientific and technological capacities needed for Europe to be able to implement a sustainable development model and make a significant contribution to the international efforts to understand and control global change and preserve the equilibrium of ecosystems. ***It recognises, however, the growing dependence on imported fossil fuels and the associated near to mid-term (2010-2020) requirement to support technological developments essential to address the reduction of greenhouse gases and pollutant emissions and the security of energy supply by safeguarding the existing infrastructure, until Renewables***

technologies gain more widespread acceptance, especially in the liberalised energy market, an approach which would have positive implications for cost, safety and security of energy supplies.

The activities carried out in this area are intended inter alia to optimise the integrated transport system in Europe and the candidate countries, using basic and applied research, specially in the light of the Commission's White Paper on European transport policy by 2010, namely through the integration of sustainable development and safety, the integration of the various modes (i.e. intermodality) and the integration at European level of the individual Member States' transport systems (interoperability) in order to contribute to and bring about more economic, efficient, socially relevant, comfortable, safe and environmentally sound mobility and transport.

(This amendment is based on Amendments 35 and 36 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendments 35 and 36 to the Caudron report on the 6th Framework Programme. These amendments were adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 68

Annex I, Section 1.1.6.1, paragraph 1

Strategic objectives address the reduction of greenhouse gases and pollutant emissions, the security of energy supply, the increased use of renewable energy as well as to achieve an enhanced competitiveness of European industry. Achieving these objectives in the short term requires a large-

Strategic objectives address the reduction of greenhouse gases and pollutant emissions, the security of energy supply, the increased use of renewable energy as well as to achieve an enhanced competitiveness of European industry. Achieving these objectives in the short term requires a large-

scale research effort to encourage the deployment of technologies already under development and to help promote changes in energy demand patterns and consumption behaviour by improving energy efficiency and integrating renewable energy into the energy system. The longer term implementation of sustainable development requires also an important RTD effort to assure the economically attractive availability, of energy, and overcome the potential barriers to adoption of renewable energy sources and new carriers and technologies such as hydrogen and fuel cells that are intrinsically clean.

scale research effort to encourage the deployment of technologies already under development ***aimed at increasing the share of low carbon content fossil fuels (such as natural gas) and at favouring a significant penetration of renewable energy*** and to help promote changes in energy demand patterns and consumption behaviour by improving energy efficiency and integrating renewable energy into the energy system. The longer term implementation of sustainable development requires also an RTD effort to assure the economically attractive availability, of energy, and overcome the potential barriers to adoption of renewable energy sources and new carriers and technologies such as hydrogen and fuel cells that are intrinsically clean.

Justification

Self-explanatory

Amendment 69

Annex I, section 1.1.6.1, Research priorities, point i), indent 1, paragraph 1

The aim is to bring to the market improved renewable energy technologies and to integrate renewable energy into networks and supply chains, for example by supporting stakeholders who are committed to establishing "Sustainable Communities" employing a high percentage of renewable energy supplies. Such actions will adopt innovative or improved technical and/or socio-economic approaches to "green electricity", heat, or biofuels and their integration into energy distribution networks or supply chains, including combinations with conventional large scale energy distribution.

The aim is to bring to the market improved renewable energy technologies and to integrate renewable energy into networks and supply chains, for example by supporting stakeholders who are committed to establishing "Sustainable Communities" employing a high percentage of renewable energy supplies. Such actions will adopt innovative or improved technical and/or socio-economic approaches to "green electricity", heat, or ***eco-efficient*** biofuels and their integration into energy distribution networks or supply chains, including combinations with conventional large scale energy distribution.

Justification

Not all biofuels currently available on the market meet high eco-efficiency criteria. In some cases, the production of such fuels is associated with high energy input and greenhouse gas emissions. However, technological development offers the prospect of improvement in this area. Research and technological development relating to sustainability of biofuels must therefore be supported.

Amendment 70

Annex I, section 1.1.6.1, Research priorities, point i), indent 3

- Alternative motor fuels.

The Commission has set an ambitious target of 20% substitution of diesel and gasoline fuels by alternative fuels in the road transport sector by the year 2020. The aim is to improve the security of energy supply through reduced dependence on imported liquid hydrocarbons and to address the problem of greenhouse gas emissions from transport. In line with the Communication on alternative fuels for road transportation, short term RTD will concentrate on three types of alternative motor fuels that potentially could reach a significant market share: biofuels, natural gas and hydrogen. Research will focus on: the integration of alternative motor fuels into the transport system, particularly into clean urban transport; the cost-effective and safe production, storage, and distribution (including fuelling infrastructure) of alternative motor fuels; the optimal utilisation of alternative fuels in new concepts of energy efficient vehicles; strategies and tools to manage the market transformation process for alternative motor fuels.

- **Eco-efficient** alternative motor fuels.

The Commission has set an ambitious target of 20% substitution of diesel and gasoline fuels by alternative fuels in the road transport sector by the year 2020. The aim is to improve the security of energy supply through reduced dependence on imported liquid hydrocarbons and to address the problem of greenhouse gas emissions from transport. In line with the Communication on alternative fuels for road transportation, short term RTD will concentrate on three types of alternative motor fuels that potentially could reach a significant market share: biofuels, natural gas and hydrogen. Research will focus on: the integration of alternative motor fuels into the transport system, particularly into clean urban transport; the cost-effective, **eco-efficient** and safe production, storage, and distribution (including fuelling infrastructure) of alternative motor fuels; the optimal utilisation of alternative fuels in new concepts of energy efficient vehicles; strategies and tools to manage the market transformation process for alternative motor fuels.

Justification

In developing alternative fuels, attention needs to be paid to eco-efficiency. This is above all a

problem in the case of biofuels. Not all such fuels currently available on the market meet high eco-efficiency criteria. In some cases, production is associated with high energy input and greenhouse gas emissions. However, technological development offers the prospect of improvement in this area. Research and technological development relating to sustainability of biofuels must therefore be supported.

Amendment 71

Annex I, section 1.1.6.1, Research priorities, point i), indent 3, paragraph 1

The Commission has set an ambitious target of 20% substitution of diesel and gasoline fuels by alternative fuels in the road transport sector by the year 2020. The aim is to improve the security of energy supply through reduced dependence on imported liquid hydrocarbons and to address the problem of greenhouse gas emissions from transport. In line with the Communication on alternative fuels for road transportation, short term RTD will concentrate on **three** types of alternative motor fuels that potentially could reach a significant market share: **biofuels, natural gas** and hydrogen.

The Commission has set an ambitious target of 20% substitution of diesel and gasoline fuels by alternative fuels in the road transport sector by the year 2020. The aim is to improve the security of energy supply through reduced dependence on imported liquid hydrocarbons and to address the problem of greenhouse gas emissions from transport. In line with the Communication on alternative fuels for road transportation, short term RTD will concentrate on **four** types of alternative motor fuels that potentially could reach a significant market share: **natural gas, synthetic fuels derived from natural gas or heavy residues, biofuels** and hydrogen.

Justification

Self-explanatory

Amendment 72

Annex I, section 1.1.6.1, Research priorities, point ii), indent 1, paragraph 2

Research will focus on: cost reduction in fuel cell production and in applications for buildings, transport and de-centralised electricity production; advanced materials related to low and high temperature fuel cells for the above applications.

Research will focus on: cost reduction in fuel cell production and in applications for buildings, transport and de-centralised electricity production; advanced materials related to low and high temperature fuel cells for the above applications;
optimisation and simplification of fuel cell subsystems; advanced hybrid systems

through integration of fuel cells with conventional technologies.

Justification

Self-explanatory

Amendment 73

Annex I, section 1.1.6.1, Research priorities, point ii), indent 2, paragraph 1

- New technologies for energy carriers/transport and storage, in particular hydrogen: The aim is to develop new concepts for long term sustainable energy supply where hydrogen and clean electricity are seen as major energy carriers. For H₂, the means must be developed to ensure its safe use at an equivalent cost to that of conventional fuels. For electricity, decentralised new and in particular renewable energy resources, must be optimally integrated, within interconnected European, regional and local distribution networks to provide secure and reliable high quality supply.

- New technologies for energy carriers/transport and storage, in particular hydrogen: The aim is to develop new concepts for long term sustainable energy supply where **natural gas**, hydrogen and clean electricity are seen as major energy carriers. For H₂, the means must be developed to ensure its safe use at an equivalent cost to that of conventional fuels. For electricity, decentralised new and in particular renewable energy resources, must be optimally integrated, within interconnected European, regional and local distribution networks to provide secure and reliable high quality supply.

Justification

Self-explanatory

Amendment 74

Annex I, section 1.1.6.1, Research priorities, point ii), indent 4, paragraph 2.

Research will focus on : developing holistic approaches to near zero emission fossil fuel based energy conversion systems, low cost CO₂ separation systems, both pre-combustion and post-combustion as well as oxyfuel and novel concepts: development of

Research will focus on : developing holistic approaches to near zero emission fossil fuel based energy conversion systems, low cost CO₂ separation systems, both pre-combustion and post-combustion as well as oxyfuel and novel concepts: development of

safe, cost efficient and environmentally compatible CO₂ disposal options, in particular geological storage, and exploratory actions for assessing the potential of chemical storage.

safe, cost efficient and environmentally compatible CO₂ disposal options, in particular geological storage, and exploratory actions for assessing the potential of chemical storage **and innovative uses of CO₂ as a resource.**

Justification

Self-explanatory.

Amendment 75

Annex I, section 1.1.6.2, Research priorities, point i), indent 2, paragraph 1

Research will focus on: “transport-specific” advanced design and production techniques, in particular for one-of-a-kind production environments, leading to improved quality, safety, recycling, comfort and cost-effectiveness of environmentally friendly vehicles (cars and trains) and vessels.

Research will focus on: “transport-specific” advanced design and production techniques, in particular for one-of-a-kind production environments, leading to improved quality, safety, recycling, comfort and cost-effectiveness of environmentally friendly vehicles (cars and trains) and vessels **and promotion of the competitiveness of maritime industry.**

(This amendment is based on Amendment 44 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 44 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 76

Annex I, section 1.1.6.2, Research priorities, point ii a) (new)

ii a) Vehicle research in order to increase the competitiveness of the industry.

(This amendment is based on Amendment 46 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 46 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 77

Annex I, section 1.1.6.3, Research priorities, indent 1 a) (new)

- Chemical research into the atmosphere;

(This amendment is based on Amendment 47 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 47 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 78

Annex I, section 1.1.6.3, Research priorities, indent 3, paragraph 1

- Biodiversity and ecosystems: the objectives are to develop a better understanding of marine and terrestrial biodiversity and of ecosystem functioning, understand and minimise the impacts of human activities on them and ensure sustainable management of natural resources and terrestrial and marine ecosystems and the protection of genetic resources.

- Biodiversity and ecosystems: the objectives are to develop a better understanding of marine and terrestrial biodiversity and of ecosystem functioning, ***particularly as regards the influence of global change on fishery resources,*** understand and minimise the impacts of human activities on them and ensure sustainable management of natural resources and terrestrial and marine ecosystems and the protection of genetic resources.

Justification

Climate change has important implications for fish stocks and the reproductive potential of fish.

Amendment 79

Annex I, section 1.1.6.3, Research priorities, indent 3

- Biodiversity and ecosystems: the objectives are to develop a better understanding of marine and terrestrial biodiversity and of ecosystem functioning, understand and minimise the impacts of human activities on ***them*** and ensure sustainable management of natural resources.

- Biodiversity, ***protection of genetic resources and landscapes, protection of all forms of genetic inheritance and cultural heritage,*** and ecosystems: the objectives are to develop a better understanding of marine and terrestrial biodiversity and of ecosystem functioning, understand and minimise the impacts of human activities on ***each of the above fields*** and ensure sustainable management of natural resources; ***in addition, support for research to develop environmentally efficient industrial processes to save water and energy and reduce waste.***

(This amendment is based on Amendment 48 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 48 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 80

Annex I, section 1.1.6.3, Research priorities, indent 3, paragraph 2

Research will focus on: assessing and forecasting changes in biodiversity, structure, function and dynamics of ecosystems and their services, with emphasis on marine ecosystems' functioning relationships between society, economy, biodiversity and habitats; integrated assessment of drivers affecting ecosystems' functioning and biodiversity, and mitigation options; risk assessment, management, conservation and rehabilitation options in relation to terrestrial and marine ecosystems.

Research will focus on: assessing and forecasting changes in biodiversity, structure, function and dynamics of ecosystems and their services, with emphasis on marine ecosystems' functioning ***in the light of global climate change and the influence of fishing activities***; relationships between society, economy, biodiversity and habitats; integrated assessment of drivers affecting ecosystems' functioning and biodiversity, and mitigation options; risk assessment, management, conservation and rehabilitation options in relation to terrestrial and marine ecosystems.

Justification

Climate change has important implications for fish stocks and the reproductive potential of fish.

Amendment 81

Annex I, point 1.1.6.3.

Research priorities

Indent 5, first paragraph

- Strategies for sustainable land management, including coastal zones, agricultural land and forests. The objective

- Strategies for sustainable land management, including coastal zones, agricultural land and forests. The objective

is to contribute to the development of strategies and tools for sustainable use of land, with emphasis on the coastal zones, agricultural lands and forests, including integrated concepts for the multipurpose utilisation of agricultural and forest resources, and the integrated forestry/wood chain in order to ensure sustainable development at economic, social, and at environmental levels.

is to contribute to the development of strategies and tools for sustainable use of land, with emphasis on the coastal zones, agricultural lands and forests, including integrated concepts for the multipurpose utilisation of agricultural and forest resources, and the integrated forestry/wood chain in order to ensure sustainable development at economic, social, and at environmental levels; ***the multifunctional benefits of farming will be particularly examined, in both qualitative and quantitative terms.***

Justification

The European agricultural model is based on the concept of the multifunctionality of farming. The application of this concept in the development of the CAP makes it necessary to clarify certain aspects of it, particularly quantitative aspects, to ascertain the monetary value of the services rendered to the community by farming and thus provide a basis for fair remuneration.

Amendment 82

Annex I, section 1.1.6.3., Research priorities, indent 5, paragraph 2

Research will focus on: development of the necessary tools for integrated management of coastal zones (ICZM); evaluation of positive and negative externalities under different production systems for agriculture and forestry; development of strategies for sustainable forest management considering regional specificity; strategies/concepts for sustainable management and multipurpose utilisation of forest and agriculture resources; cost-efficiency of new environmental-friendly processes and recycling technologies within the integrated forestry/wood chain.

Research will focus on: development of the necessary tools for integrated management of coastal zones (ICZM); evaluation of positive and negative externalities under different production systems for agriculture and forestry; development of strategies for sustainable forest management considering regional specificity; strategies/concepts for sustainable management and multipurpose utilisation of forest and agriculture resources; cost-efficiency of new environmental-friendly processes and recycling technologies within the integrated forestry/wood chain; ***the development of sustainable agriculture which is environmentally friendly.***

Justification

It should be stated that it is important to develop research activities within the new development agriculture, with a view to reducing malnutrition and poverty in countries of the South.

Amendment 83

Annex I, 1.1.6.3., Research priorities, indent 6 a (new)

- Biological resources for sustainable development: the objective is to generate and exploit knowledge of biological systems to improve the quality of life through protection and improvement of the environment, including the identification and conservation of biodiversity.

Research will focus on: knowledge of biological processes that lead to a more efficient use of materials, such as fuel, fertilisers, plant protecting agents, that remediate environmental change, and optimise the use of limiting resources, such as water and soil.

Justification

The current FP6 specific programme proposal defines well 6 technical approaches and does not place sufficient emphasis on biological resources for sustainable development.

The aim of this research priority 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 a more efficient use of materials (such as fuel, fertilisers), optimise the use of limited resources (such as water, soil) and can also remediate environmental change (carbon dioxide, toxic waste) as required by the Kyoto protocol.

Amendment 84
Annex I, section 1.1.6.3, Research priorities, indents 6 a) and 6 b) (new)

- Seismic research.

- Research in vulcanology.

(This amendment is based on Amendment 49 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 49 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 85
Annex I, section 1.1.6.3, Research priorities, indent 6 c) (new)

- Promotion of the sustainable use of renewable natural resources.

(This amendment is based on Amendment 51 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 51 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 86
Annex I, section 1.1.6.3, Research priorities, indent 7.

- Complementary research will focus on: development of advanced methods for risk assessment and methods for appraising environmental quality, including relevant prenormative research on measurements and testing for these purposes.

- Complementary research will focus on: development of advanced methods for risk assessment and methods for appraising environmental quality, including relevant prenormative research on measurements and testing for these purposes. ***In addition, research will focus on evaluation of potential toxicological effects of electromagnetic fields and prevention strategies. For sustainable development and for the evaluation of environmental risks research will focus on:***

- Advanced methodologies, including chemical methods, for the improvement and preservation of artistic, archaeological and cultural heritage and for their restoration against environmental pollutants.

- Reliable indicators of population health and environmental conditions.

- Risk evaluation in relation to outdoor and indoor exposure.

- the "sustainable city" and industrial and rural areas.

- the atmospheric "particulate".

- mechanisms underlying pathologies evoked in man and animals by environmental and food pollutants and new strategies for their prevention and therapy.

- Forestry research in connection with climate change.

Justification

Self-explanatory

Amendment 87
Annex I, section 1.1.6.3., Research priorities, indent 7 a (new)

- Research into emerging diseases in order to combat health risks with a tropical origin.

Justification

Health risks with a tropical origin present a great challenge, both for Europe and tropical countries.

Amendment 88
Annex I, section 1.1.6.3 a (new)

1.1.6.3 a. Preservation of the cultural heritage

Measures shall cover 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.

(This amendment is based on Amendment 52 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 52 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 89
Annex I, section 1.1.7, Research priorities, point ii a) (new)

ii a) Understanding Europe: its history, its

***peoples and its cultural heritage
- Evolution of European social and
political thought and institutions
- Unity and diversity of European culture.
European contributions to world
civilisation***

(This amendment is based on Amendment 57 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 57 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 90

Annex I, section 1.2.1, introductory part, paragraph 4

The programming will be carried out by the Commission, and will be based on suggestions received in response to a wide-ranging consultation of interested circles in the EU and the countries associated with the Framework Programme, regarding the topics to be included.

The programming will be carried out by the Commission ***in close consultation with the European Parliament and the Council***, and will be based on suggestions received in response to a wide-ranging consultation of interested circles in the EU and the countries associated with the Framework Programme, regarding the topics to be included.

Justification

In deciding on areas and topics of research, the Commission should consult with the European Parliament and the Council. The EU's future scientific and technological needs cannot be determined by the Commission alone.

Amendment 91

Annex I, Section 1.2.1, paragraph 5

A first allocation of EUR 350 million will

A first allocation of EUR 350 million will

be made to the research activities specified below, which have been determined on the basis of needs which can be identified now; the remaining EUR 220 million will be allocated during the course of implementation of the specific programme.

be made to the research activities specified below, which have been determined on the basis of needs which can be identified now; the remaining EUR 220 million will be allocated during the course of implementation of the specific programme.
A scale for the allocation of funding among the policies will be determined for each specific programme.

Justification

In keeping with the need for transparency in connection with the allocation of often substantial sums in this area, a scale for the allocation of resources will have to be laid down in advance. Such a scale should clearly reflect Community preferences and avoid a situation whereby projects submitted are selected on a purely discretionary basis. In addition, the scale may discourage the submission of projects in certain sectors.

Amendment 92

Annex I, section 1.2.1, point i), paragraph 1, indent 1

- the common agricultural policy (CAP), and the common fisheries policy (CFP);

- the common agricultural policy (CAP), and the common fisheries policy (CFP);

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 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;

(This amendment is based on Amendment 58 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 58 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 93

Annex I, section 1.2.1, Initial priorities, first paragraph, fifth indent
new and more environment friendly
production methods to improve animal
health and welfare,

new and more environment friendly
production methods to improve animal
health and welfare, ***as well as research into animal diseases such as foot-and-mouth disease and swine fever and, particularly, the development of marker vaccines;***

Justification

Research into the livestock industry and animal diseases is necessary from the points of view of, inter alia, animal welfare, social responsibility and agricultural incomes.

Amendment 94

Annex I, point 1.2.3 , paragraph 7, first indent

- In the case of the Mediterranean third countries, in support of the development of the Euro-Mediterranean partnership, issues relating to environment, health ***and*** water issues, as well as protection of the cultural heritage.

- In the case of the Mediterranean third countries, in support of the development of the Euro-Mediterranean partnership, issues relating to environment, health, water issues ***and rural development***, as well as protection of the cultural heritage.

Justification

Farming occupies a particularly important position in the economies of third countries in the Mediterranean region. Research is directly transposable to European Mediterranean countries. Thus developing this field is simultaneously a way of meeting our own needs, a form of development aid to these countries and a way of stabilising migratory movements.

Amendment 95

Annex I, section 1.2.3, paragraph 9a (new)

Under FP5, INTAS has proven to be a flexible, efficient and successful instrument. In view of enlargement, the number of INTAS Member States has increased. In order to maximise the mutual benefits of scientific co-operation with the NIS, including new tasks on innovation, in the period of FP6, its budget has been increased in the framework of the international activities.

Justification

Self justifying.

Amendment 96

Annex I, section 2.1, Co-ordination at European level, paragraph 1, indent 1, Scientific and technological co-operation activities carried out in other European co-operation frameworks, paragraphs 1 and 1a (new)

COST is a long-standing bottom-up mechanism that facilitates co-ordination and exchanges between nationally funded scientists and research teams in a variety of areas. In order for COST to continue to ensure a cost-effective contribution to research co-ordination within the European research area, ***its management arrangements must be adapted to the new context. This will entail the establishment***

COST is a long-standing bottom-up mechanism that facilitates co-ordination and exchanges between nationally funded scientists and research teams in a variety of areas. In order for COST to continue ***to fulfil its intergovernmental role and*** to ensure a cost-effective contribution to research co-ordination within the European research area, financial support ***will*** be granted under this programme.

by COST member states of an appropriate organisation to which financial support may then be granted under this programme.

The Commission, in co-operation with the COST member states, is requested to propose the establishment of an appropriate organisation for the management of Co-operation of Science and Technology in Europe [such as a European Community Agency or an association under national law].

Justification

For more than 30 years, COST has delivered one of the priorities of the current European Research Area (ERA) policy - international co-ordination of national research activities - and has done this consistently to a high level. Therefore, COST is of great importance for the strengthening of the European Research Area.

Amendment 97

Annex I, section 2.1, Coordination of national activities, paragraph 3, indent 4 a (new)

- sustainable development: implementation of Article 6 of the Amsterdam Treaty and of the conclusions of the Göteborg European Council on sustainable development.

(This amendment is based on Amendment 73 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 74 to the Caudron report on the 6th Framework Programme. This amendment was adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 98

Annex I, section 2.1, Coordination of national activities, paragraph 3, indent 4 b (new)

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- encouragement of inter- and multi-disciplinary research by promoting research projects in which research establishments of different disciplines from various Member States take part;

(This amendment is based on Amendment 74 to the Caudron report on the 6th Framework Programme adopted by ITRE on 23 April 2002 (A5-0153/2002, fdr 467671))

Justification

Already adopted by ITRE on 23 April 2002 as Amendment 74 to the Caudron report on the 6th Framework Programme. These amendments were adopted "en bloc" with the other amendments destined for the Specific Programmes.

Amendment 99
Annex II, Indicative Breakdown of the Amount

Types of activities	Amount (EUR million)	Types of activities	Amount (EUR million)
FOCUSING AND INTEGRATING COMMUNITY RESEARCH	12 525¹	FOCUSING AND INTEGRATING COMMUNITY RESEARCH	13 345
<i>Priority thematic areas of research²</i>	11 205	Thematic <i>priorities³</i>	11 285
Genomics and biotechnology for health	2 200	<i>Life Sciences</i> , genomics and biotechnology for health ⁴	2 255
Advanced genomics and its applications for health	1 150	Advanced genomics and its applications for health	1 100
Combating major diseases	1 050	Combating major diseases	1 155

¹ Including EUR 600 million for international co-operation activities, and including any amounts provided for under decisions of the European Parliament and Council pursuant to Article 169 of the Treaty

² The aim is to allocate at least 15% of the total financial resources assigned to this heading to SMEs.

³ Of which at least 15% for SMEs.

⁴ Including up to EUR 400 million for cancer-related research

Information Society technologies	3 600¹	Information Society technologies	3 625²
Nanotechnologies and nanosciences, knowledge-based multifunctional materials, and new production processes and devices	1 300	Nanotechnologies and nanosciences, knowledge-based multifunctional materials, and new production processes and devices	1 300
Aeronautics and space	1 075	Aeronautics and space	1 075
Food quality and safety	685	Food quality and safety	685
Sustainable development, global change and ecosystems	2 120	Sustainable development, global change and ecosystems	2 120
Sustainable energy systems	810	Sustainable energy systems	810
Sustainable surface transport	610	Sustainable surface transport	610
Global change and ecosystems	700	Global change and ecosystems	700
Citizens and governance in a knowledge-based society	225	Citizens and governance in a knowledge-based society	225
Specific activities covering a wider field of research	1 320	Specific activities covering a wider field of research	1 300
<i>Supporting policies and anticipating scientific and technological needs</i>	570	<i>Policy support and anticipating scientific and technological needs</i>	555
Horizontal research activities involving SMEs	450	Horizontal research activities involving SMEs	430
Specific measures in	300	Specific measures in	315³

¹ Including up to EUR 100 million for the further development of Géant and GRID

² Including up to EUR 100 million for the further development of Géant and GRID

³ *This amount of EUR 315 million will fund specific measures in support of international co-operation involving developing countries, Mediterranean countries including the Western Balkans, and Russia and the Newly Independent States (NIS). Another EUR 285 million is earmarked to finance the participation of third country organisations in the 'Thematic priorities' and in the 'Specific activities covering a wider field of research' thus bringing the total amount devoted to international co-operation to EUR 600 million. Additional resources will be available under section 2.2 'Human resources and mobility' to fund research training for third country researchers in Europe*

support of international co-operation		support of international co-operation	
STRENGTHENING THE FOUNDATIONS OF THE EUROPEAN RESEARCH AREA	330	STRENGTHENING THE FOUNDATIONS OF THE EUROPEAN RESEARCH AREA	320
Support for the co-ordination of activities	280	Support for the co-ordination of activities	270
Support for the coherent development of policies	50	Support for the coherent development of policies	50
Total	12 855	Total	13665

(This text modifies Amendment 30 of Fdr PR461618 according to the Compromise Amendment 30 of the 2nd reading of the research framework programme, report Caudron, adopted on 15.5.2002, A5-233/2002)

Justification

This text modifies Amendment 30 of Fdr PR461618 according to the Compromise Amendment 30 of the 2nd reading of the research framework programme, report Caudron, adopted on 15.5.2002, A5-233/2002.

EXPLANATORY STATEMENT

On the basis of the opinion delivered by the European Parliament at first reading on 14 November 2001 and the Council's common position of 28 January 2002, the Commission has put forward proposals for specific programmes for implementing the Sixth Framework Programme¹. The aim of these proposals is to contribute towards the creation of the European Research Area.

As regards the specific programmes, the aim is to create the same relationship between the Sixth Framework Programme, the rules for participation and the specific programmes. In the Sixth Framework Programme and the rules for participation, the broad framework conditions are laid down within which the specific programmes operate.

The specific programmes aim to present each of the thematic priorities in greater detail and to clearly set out their content, in order to assist other institutions at a later stage, via the four instruments, in handling specific programmes and conducting further negotiations relating to them. It is important to derive optimum benefit from the Framework Programme, the rules for participation and the specific programmes.

The ethical principles set out in the specific programmes are in accordance with those adopted by Parliament on 14 November 2001. These principles have been laid down in various conventions. In addition, the position as regards research directed at the use of stem cells, research directed at the use of 'supernumerary' embryos and other research from an ethical point of view is specifically set out in amendments, in order to more clearly define such research.

The starting point for the specific programmes is that the budgetary framework is the same as that adopted by the EP on 14 November 2001 for the Sixth Framework Programme, which set a total budget of € 16 270 m. The breakdown remains as follows: 'Integrated Research' (€13 195 m), which includes the eight thematic priorities together with CRAFT and the JRCs, 'Structuring the European Research Area' (€ 2 725), which includes sections designed to give a structure to the research area, and, finally, 'Strengthening the foundations of the European Research Area' (€ 350 m), with modifications relating mainly to mobility and infrastructure activities, particularly as regards the mechanisms and instruments to be used.

The most extensive adjustments to the Commission's earlier proposals are to be found under the thematic priorities in the programme 'Integrating and strengthening the European Research Area', including the following:

- the human genome: detailed adjustments are important in order to clarify the area of research and the precise theme.
- cancer research: research into cancer is of crucial importance in Europe, and the research strategy must be patient-oriented, from research into preventing the disease to diagnosis to treatment. An approach to research is required which, taking genomics as the basis, leads to

¹ COM(2001) 279

improvements in clinical practice and human health.

- food safety: in the area of food safety, it is necessary to give a strong boost to research in connection with the study of the safety of foodstuffs, including the effectiveness of controls and harmonisation of procedures.
- global change and ecosystems, biodiversity: in addition to a greater understanding of marine and terrestrial ecosystems, research into the impact of climate change on fish stocks and into the effects of fishing activities should be included.
- energy: as an important subsection of the priority 'Energy, sustainable development, biodiversity and global change', energy should be included, and referred to first, in the title.

The following two areas come under the heading 'Strengthening the foundations of the ERA':

- COST programme: for thirty years, COST has been making a major contribution to the international coordination of national research activities at a high level, and is very important to the strengthening of the European Research Area.
- INTAS programme: more explicit attention should be given to INTAS, as technological cooperation between the EU and Russia needs to be further strengthened in the light, *inter alia*, of geopolitical developments.

This incorporates into the specific programmes the amendments proposed by the EP at second reading in connection with the Sixth Framework Programme.

22 May 2002

OPINION OF THE COMMITTEE ON BUDGETS

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

on the amended proposals for Council decisions

1. Proposal for a Council decision adopting a specific programme 2002-2006 for research, technological development and demonstration aimed at integrating and strengthening the European Research Area (COM(2001) 279 – C5-0330/2001 – 2001/0122(CNS))
2. Amended proposal for a Council decision concerning the specific programme 2002-2006 for research, technology development and demonstration aimed at integrating and strengthening the European Research Area (COM(2001) 594 – C5-0554/2001 – 2001/0122 (CNS))
3. Amended proposal for a Council decision adopting a specific programme 2002-2006 for research, technological development and demonstration: aimed at 'Integrating and strengthening the European Research Area' (2002-2006) (COM(2002) 43 – C5-0212/2002 – 20001/0122(CNS))
4. Proposal for a Council decision adopting a specific programme 2002-2006 for research, technological development and demonstration aimed at structuring the European Research Area (COM(2001) 279 – C5-0331/2001 – 2001/0123 (CNS))
5. Amended proposal for a Council decision adopting a specific programme 2002-2006 for research, technological development and demonstration: aimed at 'structuring the European Research Area' (2002-2006) (COM(2002) 43 – C5-0213/2002 – 2001/0123(CNS))
6. Proposal for a Council decision adopting a specific programme 2002-2006 for research, technological development and demonstration to be carried out by means of direct actions by the Joint Research Centre (COM(2001) 279 – C5-0332/2001 – 2001/0124(CNS))
7. Amended proposal for a Council decision adopting a specific programme 2002-2006 for research, technological development and demonstration to be carried out by means of direct actions by the Joint Research Centre (2002-2006) (COM(2001) 43 – C5-214/2002 – 2001/0124(CNS))
8. Proposal for a Council decision adopting a specific programme 2002-2006 (Euratom) for research and training on nuclear energy (COM(2001) 279 – C5-0333/2001 – 2001/0125(CNS))

9. Amended proposal for a Council decision adopting a specific programme 2002-2006 (Euratom) for research and training on nuclear energy (2002-2006) (COM(2002) 43 – C5-0215/2002 – 2001/0125(CNS))
10. Proposal for a Council decision adopting a specific programme 2002-2006 for research and training to be carried out by the Joint Research Centre by means of direct actions for the European Atomic Energy Community (COM(2001) 279 – C5-0334/2001 – 2001/0126(CNS))
11. Amended proposal for a Council decision adopting a specific programme 2002-2006 for research and training to be carried out by the Joint Research Centre by means of direct actions for the European Atomic Energy Community (COM(2002) 43 – C5-0216/2002 – 2001/0126(CNS))

Draftsman: Ian Stewart Hudghton

PROCEDURE

The Committee on Budgets appointed Ian Stewart Hudghton draftsman at its meeting of 21 January 2002.

It considered the draft opinion at its meeting of 21 May 2002.

At the last meeting it adopted the following amendments unanimously.

The following were present for the vote: Terence Wynn, chairman; Francesco Turchi, vice-chairman; Ian Stewart Hudghton, draftsman; Kathalijne Maria Buitenweg, Joan Colom i Naval, Den Dover, Bárbara Dührkop Dührkop, Salvador Garriga Polledo, Catherine Guy-Quint, Jutta D. Haug, María Esther Herranz García, Wilfried Kuckelkorn, John Joseph McCartin, Juan Andrés Naranjo Escobar, Joaquim Piscaretta, Per Stenmarck, Kyösti Tapio Virrankoski and Ralf Walter.

SHORT JUSTIFICATION

1. Background

The Commission has presented proposals for the 6th framework programme¹ and its specific programmes². The Committee on Budgets adopted its opinion on the framework proposal in September 2001. The Parliament established its position at first reading in November 2001, and the Council approved its common position in January 2002.

As a result, the Commission revised its proposals on the specific programmes and took up a significant part of the Parliament's amendments.³ In its proposals, the Commission modified the objectives and breakdown of expenditure of the main areas of research:

Breakdown of expenditure per specific programme of FP6 (EC, EURATOM and total)

EUR million

<i>Main areas (Community)</i>		2003	2004	2005	2006	Total
Integrating research	OC*	2 776.2	2 971.2	3 119.2	3 217.1	12 083.7
	AE**	185.8	191.6	195.4	198.5	771.3
	Total	2 962.0	3 162.8	3 314.6	3 415.6	12 855.0
Structuring the European Research Area	OC	573.7	613.5	643.7	664.8	2 495.7
	AE	38.3	39.5	40.3	41.2	159.3
	Total	612.0	653.0	684.0	706.0	2 655.0
Activities carried out by the Joint Research Centre	OC	164.579	167.134	169.903	173.609	675.225
	AE	20.421	21.066	21.497	21.791	84.775
	Total	185.0	188.2	191.4	195.4	760.0
Community programmes	OC	3 514.479	3 751.834	3 932.803	4 055.509	15 254.625
	AE	244.521	252.166	257.197	261.491	1 015.375
	Total	3 759.0	4 004.0	4 190.0	4 317.0	16 270.0

<i>Main areas (EURATOM)</i>		2003	204	2005	2006	Total
Nuclear energy	OC	187.8	195.7	197.8	203.6	784.9
	AE	37.6	38.4	39.2	39.9	155.1
	Total	225.4	234.1	237.1	243.5	940.0
Activities carried out by the Joint Research Centre	OC	62.313	63.362	64.312	65.657	255.644
	AE	8.287	8.538	8.688	8.843	34.356
	Total	70.6	71.9	73.0	74.5	290.0
EURATOM programmes	OC	250.113	259.062	262.112	269.257	1 040.544
	AE	45.887	46.938	47.888	48.743	189.456
	Total	296.0	306.0	310.0	318.0	1 230.0

<i>6th framework programme</i>		2003	2004	2005	2006	Total
Grand total	OC	3 537.7	4 010.896	4 194.915	4 324.766	16 295.169
	AE	517.3	299.104	305.085	310.234	1 204.831
	Total	4 055.0	4 310.0	4 500.0	4 635	17 500

* OC = operational costs

** AE = administrative expenditure

¹ COM(2001) 94 of 21.2.2001.

² COM(2001) 279 of 30.5.2001.

³ COM(2002) 43 of 30.1.2002.

These activities can be further broken down into thematic priorities and their respective appropriations (see annex 1).

2. General assessment

In its proposals, the Commission has modified the structure and content of several thematic priorities by adjusting the specific programme entitled "Integrating and strengthening the European Research Area". Similarly, it has re-attributed research activities in relation to some thematic priorities to take account of the modifications and the financial reductions introduced by the Parliament. Finally, the Commission has clarified the description of some of the instruments stated in the annex of the proposal to reflect the principle of smooth transition from traditional to new instruments, and the idea of a fourth instrument suggested by the Parliament.

The rapporteur considers that the Commission has taken onboard most of the key amendments proposed by the Parliament. This is also the case with the amendments presented by the Committee on Budgets. For instance, the Commission followed COBU's request concerning the future nomenclature of FP6, whereby each thematic priority has now its own budget line so as to ensure a better flow of information between the Commission and the budgetary authority. Similarly, operational and administrative expenditure are presented separately so as to enable a better follow-up of the financial implementation of direct and indirect actions.

The Commission also agreed to maintain some of the instruments used under the current framework programme alongside the new ones following the request of the Parliament. (These instruments generally involve small-scale contracts, which the rapporteur considers of major importance as smaller projects are often more agile and likely to produce market-oriented results.) In addition, the Commission has introduced a reference to basic research, an earmarking of 15% to the SMEs, and a possibility to provide financial support to the candidate countries from the pre-accession instruments. All of these points had been tabled by the Committee on Budgets

Turning to the ratio of operational and administrative expenditure per specific programme, the rapporteur notes that the Commission has reduced administrative costs in non-nuclear, indirect research (Integrating research and Structuring the European Research Area) from 7.0% under the 5th framework programme to 6.0% under the revised proposals.

By contrast, nuclear activities financed under the Euratom Treaty, as well as nuclear and non-nuclear direct actions implemented by the Joint Research Centre have a higher percentage of administrative expenditure (16.5%, 12% and 11%, respectively) compared to non-nuclear indirect research, which is implemented by third parties and sub-contracted by the Community. This can be justified due to the diverging research activities implemented by the Community: unlike DG Research, DG JRC is directly involved in academic research and project management, whereby the definition of its expenditure (operational or administrative) is sometimes difficult.

The Commission has agreed to provide further clarification on the JRC's establishment plans and financial statements through the budget remarks and the working documents accompanying the general budget so that the budget authority can better evaluate the cost-efficiency of its activities. The rapporteur suggests that the Commission should also present to the Parliament an annual report on the achievements of the institutes¹ operating under the JRC and propose a revision of

¹ Institute for Advanced Materials (Petten, Netherlands), Institute for Transuranium Elements (Karlsruhe, Germany),

their objectives and establishment plans, if deemed necessary.

3. Financial remarks

As to the overall budget of the 6th framework programme, the two arms of the budgetary authority seem to have reached an agreement on the amount proposed by the Commission (EUR 17.5 billion for 2003-2006). This represents an increase of 17% compared to the current framework programme. However, assuming that other activities under heading 3 are maintained at the current level, the share of research costs would remain virtually unchanged if compared to the level in 2001. If the proposals were approved as such, they would leave a margin of approximately EUR 750 million under the ceiling of heading 3 (see table below).

On the other hand, research 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. Consequently, the rapporteur considers that the Commission should present a programming report on all the activities to be financed under heading 3 during 2003-2006 before the budgetary authority can take a final decision on the funding of the new framework programme.

The Commission believes that the new decision-making structure will improve the implementation of the research framework programme. This in turn should reduce the backlog of payments, which on 31 December 2001 amounted to EUR 6 685.3 million. The rapporteur maintains certain reservations to this optimism as the Commission will have to cope with two different sets of instruments, which can further complicate the administrative procedures and the management of projects within the Commission.

Finally, the rapporteur reminds that COBU has traditionally introduced amendments, which have replaced the management procedure with advisory committees. Such an approach would be also consistent with the recommendations made by the panel of independent experts who evaluated the 5th framework programme.¹ Therefore, he suggests to modify the Commission's proposals by presenting amendments on commitology.

Margin under heading 3 of the financial perspective in 2002-2006
(in € million, adjusted to 2003 prices)

	2001	2002	2003	2004	2005	2006	Total 2003-2006
FP ceiling for heading 3	6 272	6 558	6 796	6 915	7 034	7 165	27 910
Other policies heading 3	2 312	2 502.8	2 552.9	2 465.9	2 371	2 271.1	9 660.9
<i>RTD costs</i>	<i>3 920</i>	<i>4 055</i>	<i>4 055</i>	<i>4 310</i>	<i>4 500</i>	<i>4 635</i>	<i>17.500</i>
Total costs in heading 3 *	6 232	6 557.8	6 607.9	6 775.9	6 871	6 906.1	27 160.9
Margin under heading 3	40	0.2	188.1	139.1	163	258.9	749.1

Institute for Reference Materials and Measurements (Geel, Belgium), Institute for Prospective Technological Studies (Sevilla, Spain), and four institutes operating in Ispra, Italy (Environment Institute, Space Applications Institute, Institute for Health and Consumer Protection, and Institute for Systems, Informatics and Society).

¹ Five-year assessment of the European Union research and technological development programmes, July 2000.

RTD costs vs. FP ceiling	62.50%	61.83%	59.67%	62.33%	63.98%	64.69%	62.70%
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* Assuming that the sixth framework programme is adopted as proposed by the Commission and that other activities under heading 3 are maintained at the current level without any increases.

Breakdown of expenditure per main research activity under FP6

INTEGRATING AND STRENGTHENING THE EUROPEAN RESEARCH AREA (EC)		EUR million
1)	<i>Focusing and integrating Community research (breakdown per thematic priority)</i>	12 525
	Genomics and biotechnology for health	2200
-	<i>Advanced genomics and its applications for health</i>	1 150
-	<i>Combating major diseases</i>	1 050
	Information society technologies	3 600
	Nanotechnologies and nanosciences, knowledge-based multifunctional materials, and new production processes and devices	1 300
	Aeronautics and space	1 075
	Food quality and safety	685
	Sustainable development, global change and ecosystems	2 120
-	<i>Sustainable energy systems</i>	810
-	<i>Sustainable surface transport</i>	610
-	<i>Global change and ecosystems</i>	700
	Citizens and governance in a the European knowledge-based society	225
	Specific activities covering a wider field of research	1 320
-	<i>Supporting policies and anticipating scientific and technological needs</i>	570
-	<i>Horizontal research activities involving SMEs</i>	450
-	<i>Specific measures in support of international co-operation</i>	300
2)	<i>Strengthening the foundations of the European Research Area</i>	330
	Support for the coordination of activities	280
	Support for the coherent development of policies	50
	TOTAL	12 855

STRUCTURING THE EUROPEAN RESEARCH AREA (EC)		EUR million
1)	<i>Research and innovation</i>	300
2)	<i>Human resources</i>	1 630
3)	<i>Research infrastructure</i>	665
4)	<i>Science and society</i>	60
	TOTAL	2 655

ACTIVITIES CARRIED OUT BY THE JOINT RESEARCH CENTRE (EC)		EUR million
1)	<i>Food, chemical products and health</i>	212
2)	<i>Environment and sustainable development</i>	286
3)	<i>Horizontal activities</i>	262
	TOTAL	760

NUCLEAR ENERGY (EURATOM)		EUR million
1)	<i>Controlled thermonuclear fusion</i>	750
2)	<i>Management of radioactive waste</i>	90
3)	<i>Radiation protection</i>	50
4)	<i>Other activities in the field of nuclear technologies and safety</i>	50
	TOTAL	940

ACTIVITIES CARRIED OUT BY THE JOINT RESEARCH CENTRE (EURATOM)		EUR million
1)	<i>Radio-active waste management and safeguards</i>	186
2)	<i>Safety of the different types of reactors, radiation monitoring and metrology</i>	89

3) <i>Staff for the monitoring of the decommissioning of JRC obsolete installations</i>	15
TOTAL	290

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:

Amended proposal for a Council Decision adopting a specific programme for research, technological development and demonstration: aimed at “Integrating and strengthening the European Research Area” (2002-2006) (COM(2002) 43 – C5-0330/2001 – 2001/0122(CNS))

AMENDMENTS TO THE DRAFT LEGISLATIVE TEXT

Text proposed by the Commission¹

Amendments by Parliament

Amendment 1
Recital 16 (new)

(16) Whereas the specific programme should be compatible with the current ceiling of heading 3 without restricting other policies.

Justification

The amount proposed for the specific 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 of each specific programme.

Amendment 2
Article 7, paragraphs 1-3

1. The Commission shall be assisted by a committee, composed of ***representatives of the Member States*** and chaired by the representative of the Commission.

1. The Commission shall be assisted by a committee, composed of ***one representative of each Member State*** and chaired by the representative of the Commission.

¹ OJ C (not yet published).

2. Where reference is made to this paragraph, the management procedure laid down in Article 4 of Decision 1999/468/EC¹ shall apply, in compliance with Article 7 (3) thereof.

3. ***The period provided for in Article 4(3) of Decision 1999/468/EC shall be two months.***

OJ L 184, 17.7.1999, p. 23

2. Where reference is made to this paragraph, the management procedure laid down in Article 3 of Decision 1999/468/EC¹ shall apply, in compliance with Article 7 (3) thereof.

3. ***Deleted.***

OJ L 184, 17.7.1999, p. 23

Justification

The rapporteur considers that there is no reason why the advisory procedure could not be introduced to FP6 committee proceedings. Similarly, Member States should be restricted to one representative in order to facilitate the decision-making of the committee.

Amendment 3 Article 8, paragraph

1. The Commission shall regularly report on the overall progress of the implementation of the specific programme, in accordance with Article 4 of the framework programme; information on financial aspects shall be included.

1. The Commission shall regularly report on the overall progress of the implementation of the specific programme, in accordance with Article 4 of the framework programme; information on financial aspects shall be included.

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

Justification

This procedure was introduced as a result of an agreement between the Committee on Budgets and the Commission in October 1999. The rapporteur considers that the procedure should be maintained to improve the follow-up of the use of funds in the specific programmes of FP6.

AMENDMENT TO THE DRAFT LEGISLATIVE RESOLUTION

Amendment 4

[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 specific 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 each specific 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:

Amended proposal for a Council Decision adopting a specific programme for research, technological development and demonstration aimed at “structuring the European Research Area” (2002-2006) (COM(2002) 43 – C5-0331/2001 – 2001/0123(CNS))

AMENDMENTS TO THE DRAFT LEGISLATIVE TEXT

Text proposed by the Commission¹

Amendments by Parliament

Amendment 5
Recital 13 (new)

(13) Whereas the specific programme should be compatible with the current ceiling of heading 3 without restricting other policies.

¹ OJ C (not yet published).

Justification

The amount proposed for the specific 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 of each specific programme.

Amendment 6 Article 7, paragraphs 1-3

- | | |
|---|---|
| 1. The Commission shall be assisted by a committee, composed of representatives of the Member States and chaired by the representative of the Commission. | 1. The Commission shall be assisted by a committee, composed of one representative of each Member State and chaired by the representative of the Commission. |
| 2. Where reference is made to this paragraph, the management procedure laid down in Article 4 of Decision 1999/468/EC ¹ shall apply, in compliance with Article 7 (3) thereof. | 2. Where reference is made to this paragraph, the management procedure laid down in Article 3 of Decision 1999/468/EC ¹ shall apply, in compliance with Article 7 (3) thereof. |
| 3. The period provided for in Article 4(3) of Decision 1999/468/EC shall be two months. | 3. Deleted. |

OJ L 184, 17.7.1999, p. 23

OJ L 184, 17.7.1999, p. 23

Justification

The rapporteur considers that there is no reason why the advisory procedure could not be introduced to FP6 committee proceedings. Similarly, Member States should be restricted to one representative in order to facilitate the decision-making of the committee.

Amendment 7 Article 8, paragraph 1

- | | |
|---|---|
| 1. The Commission shall regularly report on the overall progress of the | 1. The Commission shall regularly report on the overall progress of the |
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implementation of the specific programme, in accordance with Article 4 of the framework programme; information on financial aspects shall be included.

implementation of the specific programme, in accordance with Article 4 of the framework programme; information on financial aspects shall be included.

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

Justification

This procedure was introduced as a result of an agreement between the Committee on Budgets and the Commission in October 1999. The rapporteur considers that the procedure should be maintained to improve the follow-up of the use of funds in the specific programmes of FP6.

AMENDMENT 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 specific 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 each specific 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:

Amended proposal for a Council Decision adopting a specific programme for research, technological development and demonstration to be carried out by means of direct actions by the Joint Research Centre (2002-2006) (COM(2002) 43 – C5-0332/2001 – 2001/0124 (CNS))

AMENDMENTS TO THE DRAFT LEGISLATIVE TEXT

Text proposed by the Commission¹

Amendments by Parliament

Amendment 9
Recital 13 (new)

(13) Whereas the specific programme should be compatible with the current ceiling of heading 3 without restricting other policies.

Justification

The amount proposed for the specific 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 of each specific programme.

Amendment 10
Article 6, paragraph 1

1. The Commission shall regularly report on the overall progress of the implementation of the specific programme, in accordance with Article 4 of the framework programme.

1. The Commission shall regularly report on the overall progress of the implementation of the specific programme, in accordance with Article 4 of the framework

¹ OJ C (not yet published).

programme; **information on financial aspects shall be included.**

The Commission shall inform the Parliament on a regular basis on the results of the institutes operating under the Joint Research Centre. Based on this assessment, the Commission may propose changes to their objectives and establishment plans.

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

Justification

The rapporteur considers that the Commission should assess on a regular basis the activities of the Joint Research Centre. As to budgetary information, the rapporteur reminds that this procedure was introduced as a result of an agreement between the Committee on Budgets and the Commission in October 1999. This procedure should be maintained to improve the follow-up of the use of funds in the specific programmes of FP6.

AMENDMENT TO THE DRAFT LEGISLATIVE RESOLUTION

Amendment 11

[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 specific 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 each specific 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:

Amended proposal for a Council Decision adopting a specific programme (Euratom) for research and training on nuclear energy (2002-2006) (COM(2002) 43 – C5-0333/2001 – 2001/0125 (CNS))

AMENDMENTS TO THE DRAFT LEGISLATIVE TEXT

Text proposed by the Commission¹

Amendments by Parliament

Amendment 12
Recital 12 (new)

(12) Whereas the specific programme should be compatible with the current ceiling of heading 3 without restricting other policies.

Justification

The amount proposed for the specific 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 of each specific programme.

Amendment 13
Recital 13 (new)

(13) Whereas at the next Inter-Governmental Conference, research activities implemented under the Euratom Treaty should be integrated with the EU

¹ OJ C (not yet published).

***Treaty so as to bring nuclear research
under the co-decision procedure.***

Justification

The rapporteur refers to the five-year assessment of Community financed research (1995-1999) according to which the Euratom programme should be merged into the Community framework programme so as to provide the Parliament the power to co-decide on nuclear research in the same way as for the rest of the activities implemented under the framework programme.

Amendment 14
Article 7, paragraph 1

1. The Commission shall regularly report on the overall progress of the implementation of the specific programme, in accordance with Article 5(2) of the framework programme, information on financial aspects shall be included.

1. The Commission shall regularly report on the overall progress of the implementation of the specific programme, in accordance with Article 5(2) of the framework programme, information on financial aspects shall be included.

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

Justification

This procedure was introduced as a result of an agreement between the Committee on Budgets and the Commission in October 1999. The rapporteur considers that the procedure should be maintained to improve the follow-up of the use of funds in the specific programmes of FP6.

AMENDMENT 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 specific 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 each specific 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:

Amended proposal for a Council Decision adopting a specific programme 2002-2006 for research and training to be carried out by the Joint Research Centre by means of direct actions for the European Atomic Energy Community (COM(2002) 43 – C5-0334/2001 – 2001/0126(CNS))

AMENDMENTS TO THE DRAFT LEGISLATIVE TEXT

Text proposed by the Commission¹

Amendments by Parliament

Amendment 16
Recital 14 (new)

(14) Whereas the specific programme should be compatible with the current ceiling of heading 3 without restricting other policies.

Justification

The amount proposed for the specific 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 of each specific programme.

¹ OJ C (not yet published).

Amendment 17
Recital 15 (new)

(15) Whereas at the next Inter-Governmental Conference, research activities implemented under the Euratom Treaty should be integrated with the EU Treaty so as to bring nuclear research under the co-decision procedure.

Justification

The rapporteur refers to the five-year assessment of Community financed research (1995-1999) according to which the Euratom programme should be merged into the Community framework programme so as to provide the Parliament the power to co-decide on nuclear research in the same way as for the rest of the activities implemented under the framework programme.

Amendment 18
Article 6, paragraph

1. The Commission shall regularly report on the overall progress of the implementation of the specific programme, in accordance with Article 4 of the framework programme.

1. The Commission shall regularly report on the overall progress of the implementation of the specific programme, in accordance with Article 4 of the framework programme; ***information on financial aspects shall be included.***

The Commission shall inform the Parliament on a regular basis on the results of the institutes operating under the Joint Research Centre. Based on this assessment, the Commission may propose changes to their objectives and establishment plans.

The Commission shall provide prior information to the budgetary authority whenever it intends to depart from the breakdown of

***expenditure stated in the remarks
and annex of the annual budget.***

Justification

The rapporteur considers that the Commission should assess on a regular basis the activities of the Joint Research Centre. As to budgetary information, the rapporteur reminds that this procedure was introduced as a result of an agreement between the Committee on Budgets and the Commission in October 1999. This procedure should be maintained to improve the follow-up of the use of funds in the specific programmes of FP6.

AMENDMENT TO THE DRAFT LEGISLATIVE RESOLUTION

Amendment 19

[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 specific 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 each specific programme.

27 May 2002

OPINION OF THE COMMITTEE ON AGRICULTURE AND RURAL DEVELOPMENT

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

on the proposals for Council decisions concerning the specific programmes implementing the Sixth Framework Programme of the European Community for research, technological development and demonstration activities (2002-2006)

and

on the proposals for Council decisions concerning the specific programmes implementing the Sixth Framework Programme of the European Atomic Energy Community for research and training activities (2002-2006)
(COM(2002) 43 – C5-0216/02 – 2001/0122-0126 (CNS))

Draftsman: Friedrich-Wilhelm Graefe zu Baringdorf

PROCEDURE

The Committee on Agriculture and Rural Development appointed Friedrich-Wilhelm Graefe zu Baringdorf draftsman at its meeting of 20 March 2002.

It considered the draft opinion at its meeting of 27 May 2002.

At the last meeting it adopted the following conclusions unanimously.

The following were present for the vote: Joseph Daul, chairman, (also standing in for Friedrich-Wilhelm Graefe zu Baringdorf, vice-chairman and rapporteur); Gordon J. Adam, María del Pilar Ayuso González (for Michl Ebner), Sergio Berlato, Reimer Böge (for Francesco Fiori), Niels Busk, Giorgio Celli, Arlindo Cunha, Christel Fiebiger, Christos Folias, Jean-Claude Fruteau, Georges Garot, Lutz Goepel, Liam Hyland, María Izquierdo Rojo, Elisabeth Jeggle, Salvador Jové Peres, Hedwig Keppelhoff-Wiechert, Heinz Kindermann, Dimitrios Koulourianos, Astrid Lulling (for Parish), Véronique Mathieu, Xaver Mayer, Jan Mulder (for Giovanni Procacci), Encarnación Redondo Jiménez, Agnes Schierhuber and Dominique F.C. Souchet.

SHORT JUSTIFICATION

The structure of the proposals submitted

1. On 14 November 2001, the European Parliament considered at first reading the proposal for a European Parliament and Council decision concerning the sixth framework programme (EC and Euratom) for research and technological development. On 28 January 2002, the Council adopted its common position.
2. The Commission perceived a high degree of consensus between the positions of Parliament and the Council regarding issues of principle and thematic priorities, and on this basis submitted five amended proposals for specific programmes to implement the framework programme. The specific programmes are as follows:
 - COM 2001/0122 (CNS): ‘integrating and strengthening the European Research Area’
 - COM 2001/0123 (CNS): ‘structuring the European Research Area’
 - COM 2001/0124 (CNS): ‘specific programme for research, technological development and demonstration to be carried out by means of direct actions by the Joint Research Centre’
 - COM 2001/0125 (CNS): ‘specific programme (Euratom) for research and training on nuclear energy’
 - COM 2001/0126 (CNS): ‘specific programme for research and training to be carried out by the Joint Research Centre by means of direct actions for the European Atomic Energy Community’.
3. The amendments which the Commission made to its proposals were intended to take account of the amendments adopted by Parliament at first reading and of the revised budgetary allocations provided for by the Council’s common position.
4. Only the first three specific programmes call for an opinion from the Committee on Agriculture and Rural Development, the last two being concerned exclusively with fundamental research into nuclear energy.

Opinion on the proposals submitted

5. It is regrettable that, unlike the provisions concerning other areas of the economy (aeronautics, nuclear energy), those concerning agriculture are not presented as a homogeneous block but are scattered through the chapters on food safety, the environment and development. This approach impairs the overall clarity of the support which the European legislature intends research to provide for the common agricultural policy.
6. This need for coherence is all the more imperative in the agri-food industry because the cornerstone of the CAP is the multifunctionality of farming, which by its nature requires an integrated interdisciplinary approach in order to highlight the interactions between technical, economic, environmental and social aspects which may occur between this type of enterprise and the environment in which it operates.

7. The Commission proposals sometimes give the impression that the future of agri-food research lies exclusively in following up the results of specialised fundamental research in the life sciences, making frequent use of transgenic techniques. While there may unquestionably be many avenues to be explored here, research must also continue to develop in more traditional areas and to contribute to innovation in the field of sustainable farming, in accordance with the European farming model and the types of foods which consumers want. The key to the success of these research programmes in the field of agriculture will lie in the balance struck between preserving traditional features of European agriculture and modernising it by making sensible use of innovations arising from research.
8. The following amendments are based on the above considerations.

AMENDMENTS

The Committee on Agriculture and Rural Development 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

Amendments by Parliament

Amendment 1
I - Proposal COM 2001/0122 (CNS)
Recital 7 a (new)

(7a) In this programme, integrated interdisciplinary research work must be a priority, as must 'bottom-up' approaches to research, which are concerned with the specific needs of the public.

Justification:

The cornerstone of the European agricultural model is the multifunctionality of farming, which by its nature requires an integrated interdisciplinary approach in order to highlight the interactions between technical, economic, environmental and social aspects which may occur between this type of enterprise and the environment in which it operates.

Amendment 2
I-proposal COM 2001/0122 (CNS),
Annex I, point 1.1.5 - Food Quality and Safety, Objective
paragraph 1

This priority area is aimed at assuring the health and well-being of European citizens through a better understanding of the influence of food intake and environmental factors on human health and to provide them with safer, high-quality and health-promoting foods, including seafoods, relying on fully controlled and integrated production systems originating in agriculture, aquaculture and fisheries. By re-addressing the classical approach 'from farm to fork', this thematic priority area aims at ensuring that consumer protection is the main driver for developing new and safer food and feed production chains, i.e. 'from fork to farm', relying *in particular on biotechnology tools* taking into account the latest results of genomics research.

This priority area is aimed at assuring the health and well-being of European citizens through a better understanding of the influence of food intake and environmental factors on human health and to provide them with safer, high-quality and health-promoting foods, including seafoods, relying on fully controlled and integrated production systems originating in agriculture, aquaculture and fisheries. By re-addressing the classical approach 'from farm to fork', this thematic priority area aims at ensuring that consumer protection is the main driver for developing new and safer food and feed production chains, i.e. 'from fork to farm', relying on ***both innovation from biotechnology (taking into account the latest results of genomics research) and research and innovation in the area of integrated and organic agriculture.***

Justification

In food and agricultural research biotechnology and organic farming should not be regarded as being at odds with one another. Creative combinations of the most recent technology and research and experience from organic farming can bring about desirable progress. This amendment seeks to bridge the gap between the Graefe zu Baringdorf amendment and the Commission proposal.

Amendment 3
I - Proposal COM 2001/0122 (CNS), Annex I
1.1.6.3. Global change and ecosystems
Research priorities
Indent 5

- Strategies for sustainable land management, including coastal zones, agricultural land and forests. The objective is to contribute to the development of strategies and tools for sustainable use of land, with emphasis on the coastal zones, agricultural lands and forests, including integrated concepts for the multipurpose utilisation of agricultural and forest resources, and the integrated forestry/wood chain in order to ensure sustainable development at economic, social, and at environmental levels.

- Strategies for sustainable land management, including coastal zones, agricultural land and forests. The objective is to contribute to the development of strategies and tools for sustainable use of land, with emphasis on the coastal zones, agricultural lands and forests, including integrated concepts for the multipurpose utilisation of agricultural and forest resources, and the integrated forestry/wood chain in order to ensure sustainable development at economic, social, and at environmental levels; ***the multifunctional benefits of farming will be particularly examined, in both qualitative and quantitative terms.***

Justification

The European agricultural model is based on the concept of the multifunctionality of farming. The application of this concept in the development of the CAP makes it necessary to clarify certain aspects of it, particularly quantitative aspects, to ascertain the monetary value of the services rendered to the community by farming and thus provide a basis for fair remuneration.

Amendment 4
I-proposal COM 2001/0122 (CNS)
Annex I, point 1.2.1 - Supporting policies and anticipating
scientific and technological needs
(i) Policy-orientated research
Initial priorities, first paragraph, fifth indent

new and more environment friendly
production methods to improve animal
health and welfare,

new and more environment friendly
production methods to improve animal
health and welfare, ***as well as research into
animal diseases such as foot-and-mouth
disease and swine fever and, particularly,
the development of marker vaccines;***

Justification

Research into the livestock industry and animal diseases is necessary from the points of view of, inter alia, animal welfare, social responsibility and agricultural incomes.

Amendment 5
I - Proposal COM 2001/0122 (CNS),
Annex I, point 1.2.3 - Specific measures in support of international cooperation
Research priorities – first indent

- In the case of the Mediterranean third countries, in support of the development of the Euro-Mediterranean partnership, issues relating to environment, health ***and*** water issues, as well as protection of the cultural heritage.

- In the case of the Mediterranean third countries, in support of the development of the Euro-Mediterranean partnership, issues relating to environment, health, water issues ***and rural development***, as well as protection of the cultural heritage.

Justification

Farming occupies a particularly important position in the economies of third countries in the Mediterranean region. Research is directly transposable to European Mediterranean countries. Thus developing this field is simultaneously a way of meeting our own needs, a form of development aid to these countries and a way of stabilising migratory movements.

Amendment 6
I - Proposal COM 2001/0124 (CNS), Annex I
2.1 Food, chemical products and health
Paragraph 4

Technological prospective research will be conducted on the development of food products **and** processes, and on the impact of food safety policies on the agri-food sector.

Technological prospective research will be conducted on the development of food products, **sustainable methods of cultivation and livestock farming, and food production** processes, and on the impact of food safety policies on the agri-food sector.

Justification

Research must not be confined to the final stage of processing of the product but must also apply to methods of production of primary agricultural products, particularly with a view to identifying production processes which make economical use of inputs.

Amendment 7

I - Proposal COM 2001/0124 (CNS), Annex I

2.2. Environment and sustainability

Contributions to sustainable development

Paragraph 1

Work on sustainable development pervades the whole JRC programme and attention is paid to the integration of economic, social and environmental dimensions.

Work on sustainable development pervades the whole JRC programme and attention is paid to the integration of economic, social and environmental dimensions. ***Work on such integration will particularly concern rural development and the role which farming and its multifunctional benefits should play in it.***

Justification

In this paragraph, the Commission only mentions energy and environmental protection, omitting the key role which multifunctional farms should continue to play in the sustainable development of rural areas.

16 April 2002

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 specific programmes implementing the Sixth Framework Programme of the European Community for research, technological development and demonstration activities
(COM(2002) 43 – C5-0212/2002 - 2001/0122 (CNS))

Draftsman: Bernard Poignant

PROCEDURE

The Committee on Fisheries appointed Bernard Poignant draftsman at its meeting of 24 January 2002.

The committee considered the draft opinion at its meetings of 20 February, 20 March and 16 April 2002.

At the last meeting it adopted the following amendments unanimously.

The following were present for the vote: Struan Stevenson, chairman, Rosa Miguélez Ramos, vice-chairman; Brigitte Langenhagen, vice-chairman; Elspeth Attwooll, Arlindo Cunha, Ilda Figueiredo, Ian Stewart Hudghton, Salvador Jové Peres, Heinz Kindermann, Carlos Lage, Albert Jan Maat (for Giorgio Lisi), John Joseph McCartin (for Hugues Martin), Patricia McKenna, James Nicholson (for Manuel Pérez Álvarez), Daniel Varela Suanzes-Carpegna and Herman Vermeer.

SHORT JUSTIFICATION

Introduction

On 21 February 2001 the Commission adopted its proposal for a new framework programme for research and innovation, on which the Committee on Fisheries delivered a favourable opinion on 11 July 2001.

That framework programme emphasised the Commission's strategy, without being intended as a practical tool to implement that strategy. The specific programme published on 30 January 2002 gives details of the type of measures to be implemented over the period from 2003 to 2006.

Opinion of the Committee on Fisheries

The part of the framework programme of direct concern to the Committee on Fisheries was the section entitled 'Integrating research', which incorporated seven priorities. By anticipating the Union's scientific and technological needs, an eighth criterion was intended to help improve common public policies.

In that opinion, the Committee on Fisheries tabled 13 amendments designed to ensure that research played an appropriate role in the sphere of fisheries and aquaculture. The draftsman contended that research in that sector had been neglected in the Commission's original proposal. A number of the amendments have ultimately been incorporated into the current version of the Commission text and some points have been improved.

The specific programmes

In the specific programmes, the strategy linked to the establishment of the European research area has been redefined, partly in order to incorporate fisheries.

Accordingly,

(1) in the section entitled 'Focusing and integrating Community research', two priorities are significant for fisheries ('Food quality and safety', 'sustainable development, global change and ecosystems').

The budgets earmarked by the Council for these first two priorities are EUR 685 million (as against EUR 600 million before) and EUR 700 million (as against EUR 675 million before) respectively.

(2) The fisheries industry is also directly concerned by the section entitled 'Supporting policies and anticipating scientific and technological needs', which is the eighth priority. However, the budget has been cut back radically from EUR 880 million to only EUR 570 million today.

Remarks

- *Food quality and safety*

On a number of occasions fisheries products have received adverse publicity, although the consequences have been less disastrous than in the meat industry (BSE and foot-and-mouth disease).

With a view to retaining consumer confidence, efforts must be made to improve the quality of fisheries products, and here scientific research has an important role to play. In this section of the programme, five priorities are clearly linked to fisheries.

Finally, your draftsman welcomes the fact that this chapter makes clear reference to seafood, fisheries products and aquaculture.

- *Global change and ecosystems*

Hitherto, no systematic research has been carried out into global climate change and its implications for the state of fish stocks. This type of long-awaited scientific research could now finally take place.

The priorities concerning biodiversity/ecosystems and the development of coastal areas have clear links with fisheries, something which is not always highlighted in the Commission text. Your draftsman will table an amendment designed to highlight the specific importance of research into global climate change and marine ecosystems.

- *Support for Union policies*

In addition to the drastic reduction in the budget, no provision has been made for a breakdown by sector, as called for in the previous report. If the applicant countries and the associated regions are authorised to submit requests, the simple increase in the number of projects may give rise to serious financial problems affecting the chapter concerning 'Support for the common fisheries policy'.

Your draftsman is urging that the budget should be restored to its original level and that the budgets earmarked for each of the various Union policies should be clearly determined. With that aim in view, he will table an amendment calling for a fair scale for the allocation of funding among the policies concerned.

Conclusion

Your draftsman welcomes the improvements made to the priority dealing with '*Food quality and safety*'. The priority dealing with '*Global change and ecosystems*' requires clarification, with specific attention being paid to needs in the fisheries sector. Under priority 8, the scope for supporting the common fisheries policy has been severely compromised by a substantial budget cut of more than EUR 300 million. If no changes are made, the Commission's inability to give a breakdown of the allocation of expenditure will give rise to unwanted

tension among the various parties concerned.

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 Commission¹

Amendments by Parliament

Amendment 1

ANNEX I, Chapter 1.1.6.3 Global change and ecosystems
Third indent

Biodiversity and ecosystems: the objectives are to develop a better understanding of marine and terrestrial biodiversity and of ecosystem functioning, understand and minimise the impacts of human activities on them and ensure sustainable management of natural resources and terrestrial and marine ecosystems and the protection of genetic resources.

Biodiversity and ecosystems: the objectives are to develop a better understanding of marine and terrestrial biodiversity and of ecosystem functioning, ***particularly as regards the influence of global change on fishery resources***, understand and minimise the impacts of human activities on them and ensure sustainable management of natural resources and terrestrial and marine ecosystems and the protection of genetic resources.

Justification

This priority requires clarification to highlight the impact which global climate change could have on fish stocks.

Amendment 2

ANNEX I, Chapter 1.1.6.3 Global change and ecosystems
Third indent, second paragraph, first part

Research will focus on: assessing and forecasting changes in biodiversity, structure, function and dynamics of ecosystems and their services, with emphasis on marine ecosystems' functioning; relationships between society, economy, biodiversity and habitats; integrated assessment of drivers affecting

Research will focus on: assessing and forecasting changes in biodiversity, structure, function and dynamics of ecosystems and their services, with emphasis on marine ecosystems' functioning ***in the light of global climate change and the influence of fishing activities***; relationships between society,

¹ OJ C not yet published.

ecosystems' functioning and biodiversity, and mitigation options; risk assessment, management, conservation and rehabilitation options in relation to terrestrial and marine ecosystems.

economy, biodiversity and habitats; integrated assessment of drivers affecting ecosystems' functioning and biodiversity, and mitigation options; risk assessment, management, conservation and rehabilitation options in relation to terrestrial and marine ecosystems.

Justification

This priority requires clarification to highlight the impact which global climate change could have on fish stocks.

Amendment 3

ANNEX I, Chapter 1.2.1 Supporting policies and anticipating scientific and technological needs
Seventh paragraph

A first allocation of EUR 350 million will be made to the research activities specified below, which have been determined on the basis of needs which can be identified now; the remaining EUR 220 million will be allocated during the course of implementation of the specific programme.

A first allocation of EUR 350 million will be made to the research activities specified below, which have been determined on the basis of needs which can be identified now; the remaining EUR 220 million will be allocated during the course of implementation of the specific programme.
A scale for the allocation of funding among the policies will be determined for each specific programme.

Justification

In keeping with the need for transparency in connection with the allocation of often substantial sums in this area, a scale for the allocation of resources will have to be laid down in advance. Such a scale should clearly reflect Community preferences and avoid a situation whereby projects submitted are selected on a purely discretionary basis. In addition, the scale may discourage the submission of projects in certain sectors.