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*****II**

RECOMMENDATION FOR SECOND READING

on the Council common position for adopting a European Parliament and Council decision on the Sixth Framework Programme of the European Community for research, technological development and demonstration activities, contributing to the creation of the European Research Area and to innovation (2002-2006)
(15483/3/2001 – C5-0036/2002 – 2001/0053(COD))

Committee on Industry, External Trade, Research and Energy

Rapporteur: Gérard Caudron

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.

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PROCEDURAL PAGE

At the sitting of 14 November 2001 Parliament adopted its position at first reading on the proposal for a European Parliament and Council decision on the Sixth Framework Programme of the European Community for research, technological development and demonstration activities, contributing to the creation of the European Research Area and to innovation (2002-2006) (COM(2001) 94 - 2001/0053 (COD)).

At the sitting of 6 February 2002 the President of Parliament announced that the common position had been received and referred to the Committee on Industry, External Trade, Research and Energy (15483/3/2001 - C5-0036/2002).

The committee had appointed Gérard Caudron rapporteur at its meeting of 9 January 2001.

It considered the common position and draft recommendation for second reading at its meetings of 18 and 26 February 2002, 18 March 2002, 17, 22 and 23 April 2002.

At the last meeting it adopted the draft legislative resolution by 45 votes to 1.

The following were present for the vote: Carlos Westendorp y Cabeza, chairman; Peter Michael Mombaur, Yves Piétrasanta and Jaime Valdivielso de Cué, , vice-chairmen; Gérard Caudron, rapporteur; Gordon J. Adam (for Massimo Carraro), Nuala Ahern, Konstantinos Alyssandrakis, Sir Robert Atkins, Bastiaan Belder (for Yves Butel), Luis Berenguer Fuster, Guido Bodrato, Marco Cappato, Giles Bryan Chichester, Nicholas Clegg, Gianfranco Dell'Alba (for Gian Paolo Gobbo, pursuant to Rule 153(2)), Concepció Ferrer, Norbert Glante, Hans Karlsson, Bashir Khanbhai, Helmut Kuhne (for Myrsini Zorba), Peter Liese (for Umberto Scapagnini), Caroline Lucas, Minerva Melpomeni Malliori (for Reino Paasilinna), Marjo Matikainen-Kallström, William Francis Newton Dunn (for Colette Flesch), Giuseppe Nisticò (for John Purvis), Josu Ortuondo Larrea (for Claude Turmes), Paolo Pastorelli, Elly Plooij-van Gorsel, Samuli Pohjamo (for Willy C.E.H. De Clercq), Godelieve Quisthoudt-Rowohl, Daniela Raschhofer, Imelda Mary Read, Carlos Ripoll i Martínez Bedoya (for Michel Hansenne, pursuant to Rule 153(2)), Mechtild Rothe, Christian Foldberg Rovsing, Paul Rübig, Ilka Schröder (for Roseline Vachetta), Konrad K. Schwaiger, Esko Olavi Seppänen, Gary Titley, W.G. van Velzen, Alejo Vidal-Quadras Roca, Dominique Vlasto, Olga Zrihen Zaari.

The recommendation for second reading was tabled on 25 April 2002.

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

DRAFT LEGISLATIVE RESOLUTION

European Parliament legislative resolution on the Council common position for adopting a European Parliament and Council decision on the Sixth Framework Programme of the European Community for research, technological development and demonstration activities, contributing to the creation of the European Research Area and to innovation (2002-2006) (15483/3/2001 – C5-0036/2002 – 2001/0053(COD))

(Codecision procedure: second reading)

The European Parliament,

- having regard to the Council common position (15483/3/2001 – C5-0036/2002),
 - having regard to its position at first reading¹ on the Commission proposal to Parliament and the Council (COM(2001) 94²),
 - having regard to the Commission's amended proposal (COM(2001) 709³),
 - having regard to Article 251(2) of the EC Treaty,
 - having regard to Rule 80 of its Rules of Procedure,
 - having regard to the recommendation for second reading of the Committee on Industry, External Trade, Research and Energy (A5-0153/2002),
1. Amends the common position as follows;
 2. Instructs its President to forward its position to the Council and Commission.

¹ OJ C not yet published.

² OJ C 180 E, 26.6.2001, pp. 156-176.

³ OJ C 75 E, 26.3.2002, pp.132-181.

Amendment 1

Recital 11

(11) It is appropriate to place special emphasis on the needs of Small and Medium-Sized Enterprises (SMEs).

(11) It is appropriate to place special emphasis on the needs of Small and Medium-Sized Enterprises (SMEs), ***to launch actions geared to small enterprises on the basis of the Feira European Charter for Small Enterprises, whose principles and eighth line for action aim to strengthen the technological capacity of small enterprises, and to facilitate access to the best research and technology.***

(This amendment was not tabled at first reading but, in compliance with the Rules of Procedure, seeks to amend a part of the text of the common position which was not included in the proposal submitted on first reading).

Justification

The eighth line for action calls for programmes for the promotion of technology dissemination to be strengthened, the commercial application of knowledge and technology and technological cooperation between small enterprises. One of its objectives is to support research and innovation in and by small enterprises.

The Charter also explicitly states the need to strengthen the spirit of innovation (6th principle) and facilitate access to the best research and technology (7th principle).

Amendment 2

Recital 21 a (new)

(21a) Encouragement of basic research should be a priority objective of the framework programme.

(This amendment is the same as Amendment 12 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

The importance of basic research should be clearly spelt out.

Amendment 3
Article 3

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

1. All research activities *conducted* under the Sixth Framework Programme must be carried out *with due regard for* fundamental ethical principles, *including the principles set out in the Charter of fundamental rights of the EU and the relevant international conventions such as the Declaration of Helsinki adopted in Edinburgh in October 2000, the Council of Europe Convention on Human Rights and Biomedicine signed in Oviedo on 4 April 1997, the UN Convention on the Rights of the Child and the Additional Protocol on the Prohibition of Cloning Human Beings signed in Paris on 12 January 1998, the Universal Declaration on the Human Genome and Human Rights adopted by Unesco, and the relevant World Health Organisation (WHO) resolutions.*

2. The following fields of research shall not be financed under this framework programme:

- *research activity aiming at human cloning for reproductive purposes;*
- *creation of embryos for research purposes including somatic cell nuclear transfer;*
- *research activity resulting in a modification of the genetic heritage of human beings, which could make such changes hereditary (cancer treatment of the gonads can be financed);*

3. Research on the use of human stem cells may be financed depending both on the contents of the scientific proposal and the legal framework of the Member State(s) involved; research using adult stem cells and reprogrammed adult cells should get priority for financing; there is no restriction on financing research on stem cell lines already existing in scientific

laboratories. In addition, research on embryo or foetal stem cells deriving from spontaneous or therapeutic abortion may be funded.

4. Research on ‘supernumerary’ early-stage (i.e. up to 14 days) human embryos (embryos genuinely created for the treatment of infertility so as to increase the success rate of IVF but no longer needed for that purpose and when destined for destruction) may be funded provided that such research is legally permitted in the Member State(s) where it will be conducted under the rules and strict supervision of the competent authority/ies.

5. Research promoting the understanding of legal, ethical and social implications of the new knowledge in the field of human genetics may also be financed.

6. The principles laid down in the Protocol on the protection and welfare of animals annexed to the Treaty of Amsterdam must be respected under this programme. As far as possible, animal experiments should be replaced by alternative methods.

(It is - word for word - the same amendment as Ams 22, 332, 333 and 334 adopted at first reading).

Justification

This amendment retables Ams 22, 332, 333 and 334, adopted at first reading.

Amendment 4
Article 3 a (new)

Article 3a

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

(This amendment is the same as Amendment 24 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

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

Amendment 5

Annex I, Introduction and general outline, Paragraph 4

Small and medium-sized enterprises (SMEs) will be encouraged to participate in all areas of the Sixth Framework Programme, in particular in the context of the activities carried out in the priority thematic areas.

In order to help the development of SMEs in the knowledge society and the use of the economic potential of SMEs in an enlarged and better integrated European Union SMEs, including small and micro enterprises as well as craft enterprises, will be encouraged to participate in all areas of the Sixth Framework Programme, in particular in the context of the activities carried out in the priority thematic areas.

Justification

Self-justifying.

Amendment 6

Annex I, section 1.1, paragraph 1

1.1. Thematic priorities

Seven priority thematic areas are identified, namely:

1. Genomics and biotechnology for health;

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

1.1.1 Life sciences for health and safety

1.1.1.1 Genomics and biotechnology for global health and welfare

2. Information society technologies;
3. Nanotechnologies and *nanosciences, knowledge-based multifunctional materials, and new production processes and devices*;
4. Aeronautics and space;
5. Food quality *and* safety;
6. Sustainable development, global change *and ecosystems*;
7. Citizens and *governance in a knowledge-based society*.

1.1.1.2 The major diseases

1.1.2 Information society technologies

1.1.3 Nanotechnologies and new processes of production of advanced materials

1.1.4 Aeronautics and space

1.1.5 Food quality, safety *and health risks and health improvement*

1.1.6 Energy, sustainable development, biodiversity and global change

1.1.6.1 Energy

1.1.6.2 Sustainable development and global change

1.1.6.3 Transport

1.1.7 Citizens, democracy, social and political institutions

1.1.8 Anticipating the EU's scientific and technological needs

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.

Justification

This amendment retables Ams 36 and 30 adopted at first reading.

Amendment 7
Annex I, Section 1.1.1, title

1.1.1 Genomics and biotechnology for health

1.1.1 Life sciences for health and safety

(This amendment is the same as Amendment 39 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

Self-explanatory.

Amendment 8
Annex I, Section 1.1.1.1, subtitle (new)

***1.1.1.1. Genomics and biotechnology for
global health and welfare***

(This amendment is the same as Amendment 40 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

Self-explanatory

Amendment 9
Annex I, Section 1.1.1.2, subtitle (new)

1.1.1.2 The major diseases

(This amendment is the same as Amendment 68 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

Self-explanatory.

Amendment 10
Annex I, section 1.1.1.2, Objective (new)

Objective

Research linked to cancer, cardiovascular diseases, diabetes, degenerative diseases of the nervous system (such as Alzheimer's disease, Parkinson's disease, Creutzfeldt-Jakob disease, and so forth), and rare diseases;

The accent here must lie on translational research coordinated at European level.

(This amendment is the same as Amendments 69 and 77, adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

Self justifying

Or. en

Amendment 11

Annex I, section 1.1.1.2, Justification of the effort and European added value (new)

Justification of the effort and European added value

European medical research, however, should not focus exclusively on the human genome. 'Non-genomic' research also requires joint efforts first and foremost because research on the human genome will not solve every health problem over the next 20 years.

Furthermore, European databases on various diseases could open up prospects for gigantic progress in 'traditional research', since they could be used to document the occurrence and geographical location of cases and prognoses and developments. Databases of this type could likewise document trends as regards disease figures, potential causes of diseases, and factors affording some measure of protection against them.

In these medical fields, the objective of this priority theme will be to develop improved patient-oriented strategies for the prevention and management of disease and for living and ageing healthily. 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.

For cancer, the priority theme will sponsor a patient-oriented European Initiative on Cancer Research, containing three interlinked components:

- developing networks of excellence and initiatives to coordinate national research activities and supporting transnational research.

- supporting clinical research, particularly public-interest clinical trials, aimed at validating new and improved interventions;

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

The European Initiative on Cancer Research requires € 400 million in order to have a reasonable visibility and impact in relation to cancer research in Europe as a whole.

Childhood diseases are a field in which European cooperation is vital for the study of pathogenetic mechanisms underlying pediatric serious diseases as well as identification of new instruments for their prevention and therapy. Serious diseases in children are - fortunately - very rare. Information on the few cases that do exist should be shared to enable effective treatments to be developed.

(This amendment combines Amendments 72, 73, 74 and 76 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

There are some radically different and innovatory approaches which are not related to genetic aspects and can clearly not be described as traditional.

This specifies the contribution that can be made at European level to cancer research. Tens of thousands of people die of cancer every year in the EU. Only if the Union succeeds in conducting more translational research, coordinated at EU level, will it be in a position to compete with the US to keep top researchers in the EU. In addition, this will contribute to the development of medicines in this area in the EU. Improved coordination between the EU and the Member States will enable the overall budget for cancer research to be used more efficiently and will give a boost to the combating of cancer in the EU.

The exchange of information is essential for cancer treatment. Coordination between centres with expertise in information, screening, training, research, treatment, rehabilitation and the use of research results in clinical practice is vital in order to ensure that treatments are suitable and uniform and that research results are rapidly applied, after the requisite validation procedure, which should place a high priority on the interests of patients.

Or. en

Amendment 12

Annex I, section 1.1.1.2, Actions envisaged, paragraphs 1-5(new)

Actions envisaged

Research linked to cancer, cardiovascular diseases, diabetes and diabetes-related diseases, degenerative diseases of the nervous system (including Alzheimer's Disease, Parkinson's Disease and experimental treatments now under investigation for new variant Creutzfeldt-Jakob Disease) , psychiatric diseases, cardiovascular diseases, viral hepatitis C, allergies and metabolism diseases including diabetes and rare diseases.

a) transnational research, comparative studies and coordinated development of

European databases to provide comprehensive pictures of the diseases;

b) cooperation with and support for existing networks;

c) interdisciplinary networks, to be set up preferably by linking existing networks;

d) clinical cancer research;

e) exchange of clinical practice;

f) clinical trials on new drugs.

Developing better therapies for children.

Epidemiology and preventive action on health techniques:

a) epidemiological data, tools and models for understanding, analysing and predicting the influence of environmental and dietetic factors on various populations and on health.

b) preventive health policies,

c) preventive action to influence environmental factors or control environmental risks,

d) preventive medicine.

Combating resistance to drugs and antibiotics in particular; research in this field must deal with points related to animal feed as well as hygiene habits (or the lack of hygiene), drug prescription practices, and the ways in which medicines are customarily taken;

Research on alternative or non-conventional medicines with the following aims: understanding the 'mechanism of action' of non-conventional therapies; evaluating the cost benefit; understanding the effect of non-conventional therapies in farm livestock as regarding on public health and animal welfare.

Control of disease-related conditions, for example, through the advancement of knowledge in the field of palliative medicine and care.

Job-related skin diseases.

(This amendment combines Amendments 77, 80, 81, 82, 83, 84 et 326 of first reading adopted on 14 November 2001(A5-0376/2001)

Justification

Self-explaining. It is important to incorporate the concepts of epidemiology and prevention policies into genomic and biotechnological research.

Antibiotics are posing the most serious problems where resistance to drugs is concerned.

Significant numbers of European citizens are making frequent use of non-conventional therapies. This makes the development of a research infrastructure which reflects the actual prevalence and relevance of complementary therapies in health essential.

Or. en

Amendment 13

Annex I, section 1.1.1.2, Actions envisaged, paragraph 6 (new)

Research on medical use of cannabis.

This amendment is the same as Amendment 84 adopted at first reading on 14 November 2001 (A5-0376/2001).

Justification

Compatible with the rapporteur's amendment 10. The medical use of cannabis is beginning to create interest, and not just in the Netherlands. The other governments of the Union are showing increasing interest in the medical use of cannabis. The international Office for drug control has asked associated countries on several occasions to encourage clinical trials of cannabis. Although it seems that the drug may be useful in the treatment of certain diseases, its therapeutic use is not backed up by any scientific proof. Over 40 potential applications are cited in historical sources. The most promising relate to multiple sclerosis, appetite stimulation in connection with AIDS- and cancer-related malnutrition syndrome, nausea and vomiting associated with the treatment of cancer by chemotherapy, epilepsy, various types of pain, and glaucoma.

Amendment 14

Annex I, section 1.1.2, Objective, paragraphs 1 a, 1 b and 1 c (new)

The research effort in FP6 will concentrate on the future generation of IST that will

reinforce the eEurope objectives of bringing IST applications and services to everyone, every home, every school and to all businesses. It will enable the development of the next generation Internet that will be more user-centred. A new generation of IST is emerging that will enable all citizens and businesses to benefit from IST services. Involving a radical shift from the current 'PC-based' systems and from the 'keyboard, mouse and screen', the aim is to render technology almost invisible and make its use natural and effortless.

This requires a massive research effort to embed electronic components and devices in everyday objects and to build networking and computing technologies that have enough bandwidth and performance for interconnecting such components everywhere and at any time. In addition, interfaces are required that use our natural senses (touch, smell, speech and gesture) for easy and effective interaction with knowledge-based applications and services. This approach, which is strongly supported by industry and the research community, represents a clear opportunity for Europe to build on its technological and industrial strengths in areas such as mobile communications, consumer electronics and embedded software.

3G mobile and current wireless systems are a major step towards this next generation as they enable anywhere access to Internet services from a non-PC platform and for the normal 'man on the street'. Wearable mobile devices that incorporate interfaces making use of our 'natural' senses such as speech are currently under development. They constitute a further step towards this so-called vision of 'ambient intelligence' in which the users (people) are at the centre of IST development.

(Identical to Amendment 87 adopted on 14 November 2001).

Justification

This amendment retables Am 87 adopted at first reading.

Amendment 15

Annex I, section 1.1.2, Actions envisaged, action 1, point (b)

(b) "ambient intelligence" systems offering access to the information society for all, **regardless** of age and **situation**, as well as interactive and intelligent systems for health, mobility, security, leisure, tourism, access to and preservation of the cultural heritage, and environment;

(b) ***the development of operating systems and hardware for the production of European computers and "ambient intelligence" systems offering access to the information society for all irrespective of age, disability and other individual circumstances, as well as interactive and intelligence systems for health, mobility, security, leisure, preservation of the cultural heritage and environment monitoring. Intelligence systems should be particularly aimed at securing access for and participation by socially excluded and disadvantaged groups in society including disabled people, covering both design for all principles and assistive technologies in this field;***

(Based on Amendment 93 adopted on first reading, but changes it.)

Justification

It is particularly important to make the new information technologies available to persons with disabilities or special needs.

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

Amendment 16

Annex I, section 1.1.2, Actions envisaged, action 2, point (a)

(a) the new generations of wireless and mobile communications systems and networks; satellite communications systems;

(a) the new generations of wireless and mobile communications systems and networks; satellite communications systems;

all-optical technologies; integration and management of communication networks, **including interoperable network solutions**; capacity-enhancing technologies necessary for the development of systems, infrastructures **and services, in particular for audio-visual applications. Work will also lead to the development of next Internet generation**;

all-optical technologies **including display systems**; integration and management of communication networks; capacity-enhancing technologies necessary for the development of systems **and** infrastructures, **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**;

(This amendment is the same as Amendment 98 adopted on 14 November 2001 (A5-0376/2001))

Justification

This amendment retables Am 98 adopted at first reading.

Amendment 17

Annex I, section 1.1.2, Actions envisaged, action 3, point (b a) (new)

(b a) innovations to reduce the environmental impact of ICTs at all stages, manufacturing, use and end of product life,

(This amendment is the same as Amendment 105 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

It is important to assess the impact of ICTs on sustainable development and to take into account their impact on users.

Amendment 18

Annex I, section 1.1.2, Actions envisaged, action 3, point (b b) (new)

(b b) research into and development of new technologies for anti-personnel mine clearance purposes;

(This amendment is the same as Amendment 100 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

The reason for the Council's rejection (namely that the point is already listed among the tasks of the JRC) is unsatisfactory. The original amendment was tabled and adopted because the JRC task list is insufficient.

Amendment 19
Annex I, section 1.1.3, Actions envisaged, action 2, heading

Knowledge based multifunctional materials

Knowledge-based **and/or** multifunctional materials **and/or materials with special properties**

Justification

'Knowledge-based materials' seems a very narrow term to denote research into innovative materials, and it is undoubtedly the case that the combination with the word 'multifunctional', a new addition in the Council's common position, unduly limits the scope of this research area. It should therefore be made clear that the terms 'knowledge based' and 'multifunctional' can also be regarded as alternatives and research can likewise extend to other materials with special properties.

Amendment 20
Annex I, section 1.1.3, Actions envisaged, action 2, point (b)

(b) technologies associated with the production and transformation including processing of knowledge based multifunctional materials and of biomaterials;

(b) technologies associated with the production and transformation including processing of knowledge-based **and/or** multifunctional materials **and/or materials with special properties, for instance highly stress-resistant materials**, and of biomaterials;

Justification

'Knowledge based materials' seems a very narrow term to denote research into innovative materials, and it is undoubtedly the case that the combination with the word 'multifunctional', a new addition in the Council's common position, unduly limits the scope of this research area. It should therefore be made clear that the terms 'knowledge based' and 'multifunctional' can also be regarded as alternatives and research can likewise extend to other materials with special properties.

Amendment 21
Annex I, section 1.1.3., Actions envisaged, action 2, point (c a) (new)

(c a) development of new processes and IT

tools in the process industry, including simulation, and their exploitation in development work.

(This amendment is the same as Amendment 120 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

In Europe, there are specific knowledge and strong traditions in the basic process industry. These sectors have great interests to develop new production processes or sub-processes which can improve the competitiveness of the European process industry and which result in a better economical and environmental outcome. New production processes of the basic process industry also mean more efficient utilisation of the raw materials, energy savings and possibilities to develop new products.

Amendment 22

Annex I, section 1.1.4, Objective

The aim of activities carried out in this area is **two-fold**: to **strengthen, by integrating its research efforts, the scientific and technological bases of the European aeronautics and space industry and encouraging it to become more competitive at international level**; and to help exploit the potential of **European** research in this sector with a view to improving safety and environmental protection.

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

(This amendment is the same as Amendment 123 adopted at first reading on 14 November 2001(A5-0376/2001))

Justification

The aim is not only to strengthen and develop European industry but above all to integrate it into an intermodal global approach for the future, with due regard for environmental and social conditions. In the field of intermodality, congestion in the air transport sector (with the effect that that has on safety and the environment) has become a major international problem. The transfer of short- haul domestic flights is one of the options contained in the Common Transport Policy and will depend on the success of air/surface intermodality systems. This

will enable Europe to boost its exports of such integrated systems, for which there is increasing international demand. With a view to the next enlargement of the European Union, a uniformly structured European Research Area needs to be created. It is therefore important to refer expressly to the applicant countries in connection with each of the priority thematic areas.

Amendment 23

Annex I, section 1.1.4, Actions envisaged, Aeronautics, point (b)

(b) ***reduce*** the environmental ***impact of aircraft***, including ***fuel consumption, environmental nuisances and loads*** (CO₂ and NO_x emissions, ***noise***);

(b) ***research on*** the environmental ***and health impacts of aviation***, including ***reduction of CO₂ and NO_x emissions and other chemical pollutants, noise pollution and stacking***;

(This amendment is the same as Amendment 126 adopted on 14 November 2001 (A5-0376/2001))

Justification

Self-explanatory.

Amendment 24

Annex I, section 1.1.4, Actions envisaged, Space, point (c a) (new)

(c a) space science and study of the solar system, including research on the sun and the climate and geology of the earth.

(This amendment is the same as Amendment 132 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

Space science is vital to support other areas of research. For example the sun's magnetic field affects the earth's telecommunication systems and observations made in the atmospheres of other planets aid us in our understanding of our own climate.

Amendment 25

Annex I, section 1.1.5, title

(This amendment is the same as Amendment 133 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

Self-explanatory.

Amendment 26
Annex I, section 1.1.5, Objective

The activities carried out in this area are intended to help establish the integrated scientific and technological bases ***needed to develop an*** environmentally friendly production and distribution ***chain of safer, healthier and varied*** food, including sea food ***and to*** control food-related risks, relying in particular on ***biotechnology tools taking into account the results of post-genomic research, as well as to*** control health risks associated with environmental changes.

The activities carried out in this area are intended to help establish the integrated scientific and technological bases ***in order to protect human health and ensure food safety in the European Union and the applicant countries by:***

- ***developing an*** environmentally friendly ***system of*** production and distribution ***of safe, healthy and quality*** food including sea food ***in line with consumer requirements, habits and perceptions,***

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

- ***developing food technologies more in keeping with the fundamental role that nutrition, diet and lifestyle play as regards health and disease prevention, while at***

the same time facilitating consumer choice of products,

- control of health risks associated with environmental changes, working conditions or factors in the work environment.

(This amendment is the same as Amendment 134 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

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

Amendment 27

Annex I, section 1.1.5, Justification of the effort and European added value, paragraphs 7 and 7a (new)

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

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

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.

(This amendment is based on Amendment 137 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

The changes to the first paragraph are of a technical nature. The final paragraph raises the matter of safety at work.

Amendment 28

Annex I, section 1.1.5, Justification of the effort and European added value, paragraph 7 b (new)

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 Amendment 139 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

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

Amendment 29
Annex I, section 1.1.5, Actions envisaged, point (c)

(c) impact of food, for instance new products, products resulting from organic farming, functional food, products containing genetically modified organisms and those arising from recent biotechnology developments on health;

(c) impact of food, for instance new products, products resulting from organic farming, functional food, products containing genetically modified organisms and those arising from recent biotechnology developments on health **and methods for the analysis of causes of food-related allergies**;

(This amendment is based on Amendment 153 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

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

Amendment 30
Annexe I, section 1.1.5, Actions envisaged, point (e)

(e) methods of analysis, detection **and control** of 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);

(e) methods of analysis **and** detection of chemical contaminants and **sequencing of** pathogenic **and non-pathogenic** micro-organisms (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 143 adopted at first reading on 14 November 2001

(A5-0376/2001))

Justification

Genome sequences are a very reliable, rapid and inexpensive way of identifying parasites and pathogens, but also of understanding genomic modifications at the origin of an emergent pathogen. In line with the rapporteur's amendments, this area is to be called 'Health and safety' and includes only those aspects of food safety not related to biotechnologies. The aim is to develop these aspects in the specific paragraph on 'Food'.

Amendment 31

Annex I, section 1.1.5., Actions envisaged, point (f a) (new)

(f a) 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 the same as Amendment 146 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

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

Amendment 32

Annex I, section 1.1.5 Actions envisaged, point (g a) (new)

(g a) 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 the same as Amendment 155 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

Self-explanatory.

Amendment 33
Annex I, section 1.1.5, Actions envisaged, point (g b) (new)

(g b) control of health risks at work.

(This amendment is the same as Amendment 159 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

European research must also tackle safety at work, which has not been included in the Commission proposal. Amendment 159 at first reading.

Amendment 34
Annex I, section 1.1.5, Actions envisaged, point (g c) (new)

(g c) the healthy crop (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).

(This amendment is the same as Amendment 156 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

The common position emphasises in its seven actions food 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 key action 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 35
Annex I, section 1.1.6, Objective, paragraph 1

The activities carried out in this area are intended to strengthen the scientific and technological capacities needed for Europe to be able to implement sustainable development, ***emphasised by the Göteborg European Council, and integrating its environmental, economic and social objectives with particular regard to renewable energy, transport, and sustainable management of Europe's land and marine resources. These activities should enable Member States, the associated candidate and other associated countries to make a significant contribution to the international efforts to understand and control global change and preserve the equilibrium of ecosystems.***

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

(This amendment is the same as Amendment 163 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

Natural gas is an obvious stepping stone to a hydrogen based system, in terms of infrastructure provision and development. The EU is dependent on finding, extracting and transporting gas and oil from remote areas, including the North Sea. These technologically demanding feats were only made possible as a result of a tremendous R&D effort and, if we want to ensure security of supply, this effort must continue in future, to make more finds feasible and to improve recovery from existing finds. Similarly, storage of energy becomes more and more important as the energy system becomes more complex with many decentralised generating units. This requires improved and new concepts for gas storage.

Amendment 36
Annex I, section 1.1.6, Objective, paragraph 1 a (new)

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 Amendment 208 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

European surface transport was not dealt with in a sufficiently consistent fashion in the original version of the Sixth Research and Development Framework Programme. In line with Parliament's amendments, the Council has brought together the various forms of sustainable surface transport in a single section within the programme. In this new section, research into all forms of transport is to be given a higher profile (in terms of sustainable development, intermodality, interoperability and safety).

Amendment 37
Annex I, section 1.1.6., Justification of the effort and European added value, paragraphs 1 and 2

The implementation *on a global scale* of sustainable development requires *more particularly*:

The global implementation of sustainable development requires the design, development and dissemination of technologies making it possible to ensure

more rational and sustainable use of natural resources *to produce energy and raw materials for industrial processes. This should include finding and developing the resources, clean and energy-efficient production and minimising waste, emissions and the impact of such economic activity on the environment. Particular attention should be given to the development of an Energy-Intelligent Europe;*

(a) the design, development and dissemination of technologies and solutions, such as promotion of changes in energy consumption behaviour, making it possible to ensure the conservation and more rational and sustainable use of natural resources, with less waste and a reduction in the impact of economic activity on the environment. Sectors of strategic importance in this context include energy and transport, especially the urban and regional development aspects of these sectors;

(b) a better understanding of ecosystems and of the mechanisms and impacts of global change (for instance climate change), including the effect of these mechanisms on land and marine resources; as well as the development of related forecasting capacities;

the integration of sustainable development (see Article 6 of the Treaty): the reduction of noise and harmful gases (both local and regional) in the interests of the environment and human health by means of socio-economic techniques and approaches relating to mobility and transport in Europe, in order to prevent or reduce external environmental costs. It would include research for:

- new vehicle concepts in particular for road transport and urban transport;*
- novel propulsion systems, fuel cells and alternative motor fuels adapted to transport;*
- advanced design and production techniques leading to improved quality,*

safety, reliability, recyclability, weight reduction, comfort and cost-effectiveness of transport systems and vehicles.

Where technology is concerned, as highlighted in the Commission Green Paper 'Towards a European strategy for the security of energy supply' and in the Commission's White Paper 'European transport policy for 2010: time to decide', two areas concerned as a matter of priority are energy and transport, which are responsible for over 80% of total emissions of greenhouse gases and more than 90% of CO₂ emissions.

(This amendment is the same as Amendments 164 and 210 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

European surface transport was not dealt with in a sufficiently consistent fashion in the original version of the Sixth Research and Development Framework Programme. In line with Parliament's amendments, the Council has brought together the various forms of sustainable surface transport in a single section within the programme. In this new section, research into all forms of transport is to be given a higher profile (in terms of sustainable development, intermodality, interoperability and safety).

Transport is one of the most important areas of sustainability. Further significant savings can be made in this field through the use of ICT and new energy sources such as fuel cells. In addition, through other logistical arrangements involving intelligent applications it is possible to make better use of the various means of public transport and to improve safety. This represents a spearhead of the 6th framework programme.

Or. en

Amendment 38

Annex I, section 1.1.6, Justification of the effort and European added value, paragraphs 6 a, 6 b and 6 c (new)

In addition, the close ties between the environment and agriculture and forestry cannot be overlooked, since these activities occupy a large part of European territory and make direct use of natural resources.

Helping to integrate agriculture, forestry and the environment would contribute to the sustainability of the European agricultural model, as well as preserving biodiversity and curbing the greenhouse effect.

With this in view, a three-pronged research strategy needs to be developed: first, the multifunctional role of agricultural and forestry activity must be incorporated into the various production systems as a focus for a new CAP capable of ensuring the sustainable development of rural areas; second, with a view to securing sustainable agricultural production, greater knowledge is needed of the impact of agriculture's negative externalities; lastly, appropriate political mechanisms must be devised to meet these challenges, making it possible to provide farmers with aid in return for the goods and services of public interest they provide (positive externalities), introduce new production methods that are more environment-friendly and help protect genetic resources, geared to individual production systems, improve farm waste recycling techniques, develop alternatives to existing inputs to guarantee production and combat pests and diseases, encourage techniques to combat erosion and the effects of fires and acid rain on forests and, finally, study animal welfare rules while determining the precise economic effects on farms.

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

(This amendment is the same as Amendment 186 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

This amendment retables Am 186 adopted at first reading.

Amendment 39

Annex I, section 1.1.6, Actions envisaged, action I, point (a), subpoint (ii)

(ii) energy savings and energy efficiency, ***including those to be achieved through the use of renewable raw materials;***

(ii) ***renewable energy sources***, energy savings and energy efficiency, ***especially in the urban environment and the historical and natural heritage as well as environmentally sound production and processing of renewable raw materials to replace fossil fuels and other raw materials which are in limited supply or damaging to the environment. Also, promotion of research into environmental efficiency in industrial processes to save water and energy and reduce waste;***

(This amendment is the same as Amendment 169 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

This amendment retables Am 169 adopted at first reading.

Amendment 40

Annex I, section 1.1.6, Actions envisaged, action I, point (b), subpoint (iv a) (new)

(iv a) fossil fuels: improvement of performance and cleanliness, transport and distribution of gas and oil, energy storage, more efficient use of fossil fuels, for example, use of combined heat and power and other Distributed Generation applications;

(This amendment is the same as Amendment 171 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

This reinstates amendment 171 adopted on first reading. Combined heat and power and other Distributed Generation applications have great potential to be a very efficient and

environmentally sustainable power source with the ability to operate on many different fuels (natural gas among others) including renewable fuels such as biogas. Fossil fuels will continue to play an important role in European energy production. Research should continue to make heat and power production as clean as possible. Technologies for transport, distribution and storage should also be improved, as they may be responsible for large-scale environmental damage.

Amendment 41

Annex I, section 1.1.6, Actions envisaged, action I, point (b), subpoint (iv b) (new)

(iv b) non-obtrusive and more efficient energy transmission systems;

(This amendment is the same as Amendment 175 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

This is the same as amendment 175 adopted on first reading. It is useful, in this context, to study developments relating to the environment and to energy and cost savings, with a particular view to encouraging the swift and non-obtrusive setting up of energy, fluid and communications networks.

Amendment 42

Annex I, section 1.1.6, Actions envisaged, action II, point (a)

(a) Developing environmentally friendly transport systems and means of transport of passengers and freight, and clean urban transport with rational use of the car in the city:

(a) Developing environmentally friendly, ***safe, and competitive*** transport systems and means of transport of passengers and freight, and clean urban transport with rational use of the car in the city:

(New text in common position).

Justification

Surface transport has to be made safer and more competitive to help promote sustainable development. Another sine qua non for sustainable development will be better sea transport, given that the latter has still to achieve its full potential. Compared with road transport, sea transport has unique safety and environment-friendliness features, and steps can be taken to reduce its risks. It has an essential role to play, which could be exploited even further, to enable the trans-European transport network to become more competitive and intermodality to be implemented to more useful effect. That is why (technological and organisational) solutions must be found to link sea transport to the other types of transport.

Amendment 43

Annex I, section 1.1.6, Actions envisaged, action II, point (a), subpoint (-i) (new)

(-i) avoidance and reduction of transport: new mobility management and transport logistics systems, study of the interplay between urban development, regional planning policy, housing policy and transport, decoupling transport growth from economic growth;

(This amendment is the same as Amendment 216 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

European surface transport was not dealt with in a sufficiently consistent fashion in the original version of the Sixth Research and Development Framework Programme. In line with Parliament's amendments, the Council has brought together the various forms of sustainable surface transport in a single section within the programme. In this new section, research into all forms of transport is to be given a higher profile (in terms of sustainable development, intermodality, interoperability and safety).

Amendment 44

Annex I, section 1.1.6, Actions envisaged, action II, point (a), subpoint (ii)

(ii) advanced design and *productions* techniques leading to improved quality, safety, recyclability, comfort and cost-effectiveness;

(ii) advanced design and *production* techniques leading to improved quality, safety, recyclability, comfort and cost-effectiveness ***and promotion of the competitiveness of maritime industry;***

(New text in common position)

Justification

Surface transport has to be made safer and more competitive to help promote sustainable development. Another sine qua non for sustainable development will be better sea transport, given that the latter has still to achieve its full potential. Compared with road transport, sea transport has unique safety and environment-friendliness features, and steps can be taken to reduce its risks. It has an essential role to play, which could be exploited even further, to enable the trans-European transport network to become more competitive and intermodality

to be implemented to more useful effect. That is why (technological and organisational) solutions must be found to link sea transport to the other types of transport.

Amendment 45

Annex I, section 1.1.6, Actions envisaged, action II, point (a), subpoint (ii a) (new)

(ii a) carry out complete economic, environmental and social impact assessments for sustainable transport policies and plans, taking into account existing instruments and methodologies (e.g. developed within the TERM);

(This is the same as Amendment 218 adopted on first reading on 14 November 2001 (A5-0376/2001)).

Justification

European surface transport is not dealt with sufficiently coherently in the proposed sixth research and development framework programme. It is appropriate, therefore, to devote a single section of the framework programme to these forms of transport. In the new thematic area, the research dimension of all forms of transport will be strengthened (in terms of sustainable development, intermodality, interoperability and safety).

Amendment 46

Annex I, section 1.1.6, Actions envisaged, action II, point (b a) (new)

(b a) Vehicle research in order to increase the competitiveness of the industry;

(This amendment is the same as Amendment 221 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

The above paragraph is intended to ensure compliance with the resolution of the Council of Ministers of Industry of 5 December 2000 under the French Presidency on facilitating the access of shipbuilding to research aid.

Amendment 47
Annex I, section 1.1.6, Actions envisaged, action III, point (a a) (new)

(a a) chemical research into the atmosphere;

(This amendment is the same as Amendment 200 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

The amendment corresponds in substance to Amendment 200 adopted by Parliament at first reading.

Amendment 48
Annex I, section 1.1.6, Actions envisaged, action III, point (c)

(c) understanding marine and terrestrial biodiversity, marine ecosystem functions, protection of genetic resources, sustainable management of terrestrial and marine ecosystems and interactions between human activities and the latter;

(c) biodiversity, protection of genetic resources and landscapes, protection of all forms of genetic inheritance and cultural heritage, operation of terrestrial and marine ecosystems and interactions between human activities and each of the above fields; in addition, support for research to develop environmentally efficient industrial processes to save water and energy and reduce waste;

((This amendment is the same as Amendment 203 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

Europe must seek to protect genetic resources to the same extent as man-made resources. In this way, research to protect biodiversity and genetic resources (a matter of world-wide concern) will form a pair with scientific and technological research to protect cultural heritage, a matter of importance from the perspective of consolidating a genuinely European identity at a time when Europe needs common reference points in anticipation of enlargement. Furthermore, interactions with human activities are essential in order to understand the developments affecting all the subjects mentioned in the above point, which should not be confined solely to terrestrial and marine ecosystems.

Amendment 49

Annex I, section 1.1.6., Actions envisaged, action III, points (f a) and (f b) (new)

(f a) seismic research;

(f b) research in vulcanology.

(This amendment is the same as Amendment 197 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

Self-explanatory.

Amendment 50

Annex I, section 1.1.6, Actions envisaged, action III, point (f c) (new)

(f c) improvement and use of biological resources for sustainable development (knowledge on biological processes that lead to reduced inputs of materials, such as fuel, fertilisers, pesticides, that remediate environmental change, and optimise use of limiting resources, such as water and soil);

(This amendment is the same as Amendments 178 and 198 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

The current FP6 proposal defines six technical approaches but does not place sufficient emphasis on biological resources for sustainable development.

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

Amendment 51

Annex I, section 1.1.6, Actions envisaged, action III, point (f d) (new)

(f d) promotion of the sustainable use of renewable natural resources.

(This amendment is the same as Amendment 195 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

In the Commission's proposal for the sixth Environmental Action Programme of the European Union, the development and promotion of the use of renewable raw materials are emphasised. Furthermore, a Directive on the promotion of electricity from renewable energy sources (RES-E) has recently been adopted in the EU. The development and promotion of the use of renewable raw materials are to be prioritised in the EU. This should be expressed explicitly in the sixth R & D Framework Programme.

Amendment 52

Annex 1, Section 1.1.6, Actions envisaged, action III a (new)

IIIa. 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 the same as Amendment 206 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

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

Amendment 53

Annex I, section 1.1.7. Actions envisaged, action 1, point (b)

(b) options and choices for the development of a knowledge-based society serving the Union objectives emphasised at the Lisbon, Nice and Stockholm European Councils, in particular as regards improving the quality of life, social, employment and labour market policies, life-long learning, and strengthening social cohesion and

(b) options and choices for the development of a knowledge-based society serving the Union objectives emphasised at the Lisbon, Nice and Stockholm European Councils, in particular as regards improving the quality of life, ***ageing of the population***, social, employment and labour market policies, life-long learning, and

sustainable development with due consideration for the various social models in Europe;

strengthening social cohesion and sustainable development with due consideration for the various social models in Europe;

Justification

This amendment refers to new text and is intended to reach a compromise with the Council. It is important that this section of society is not overlooked.

Amendment 54

Annex 1, section 1.1.7, Actions envisaged, action 2, indent 3 a (new)

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

(This amendment is the same as Amendment 249 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

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

Amendment 55

Annex I, section 1.1.7, Actions envisaged, action 2, indents 4 and 4 a (new)

– emergence of new forms of citizenship and cultural identities, forms and impact of integration and cultural diversity in Europe;
social and cultural dialogue involving Europe as well as the rest of the world.

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

– urban and regional management for the conservation of cultural and natural resources.

((This amendment reinstates Amendment 251 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

One of the unresolved issues in European policy is the transfer of knowledge deriving from research to the management level, first and foremost in connection with urban matters, spatial planning, cultural policy, and sustainable development as applied to locally based resources. In addition, academic studies are unfortunately apt to be highly theoretical by nature. Ways must be found to bring the two spheres closer together, and research programmes drawn up to encompass the advent and application of knowledge, technical systems, working tools, etc.

Amendment 56

Annex I, section 1.1.7, Actions envisaged, action 2, indent 4 b (new)

- the cities of tomorrow and their cultural, artistic, archaeological and historical heritage in the context of development of the knowledge-based society;

(This amendment is the same as Amendment 250 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

References to cultural heritage without a specific action are meaningless. Europe's cultural heritage is non-renewable and as important, fragile and threatened a resource as the world's natural habitat and ecology. It makes a crucial direct contribution to the quality of life and the European economy (tourism alone worth 12% of GDP and provides 9 million jobs).

Amendment 57

Annex 1, section 1.1.7. Actions envisaged, action 2 a, paragraph 1, indents 1 and 2 (new)

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 the same as Amendment 254 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

Europe's cultural heritage makes Europe a unique phenomenon. Its strength lies in its unity and diversity. This must also be an area covered by the 6th framework programme.

Amendment 58

Annex I, section 1.2.1, part A, paragraph 4, point (a)

(a) the common agricultural policy (CAP) and the common fisheries policy (CFP);

(a) 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 reinstates Amendment 259 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

This amendment retables Am 259 adopted at first reading.

Amendment 59
Annex I, section 1.2.1, part A, paragraph 4, point (a a) (new)

(a a) research in support of the development and validation of alternative non-animal testing procedures for both chemicals and biologicals, including funding targeted to hasten the replacement of animal-based toxicity testing in support of the future EU Chemicals Policy.

(This amendment is the same as Amendment 323 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

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

Amendment 60
Annex I, Section 1.2.1, part A, paragraph 4, point (c)

(c) other Community policies, namely health (in particular public health), regional development, trade, development aid, internal market and competitiveness, social policy and employment, education and training, culture, gender equality, consumer protection, the creation of an area of freedom, security and justice, and external relations, including those policies in support of enlargement, and including the requisite statistical methods and tools;

(c) other Community policies, namely health (in particular public health), regional development, trade, development aid, internal market and competitiveness, social policy and employment, ***ageing of the population***, education and training, culture, gender equality, consumer protection, the creation of an area of freedom, security and justice, and external relations, including ***the development of defence and security policy in Europe in connection with the shaping of the European Research Area*** and those policies in support of enlargement, and including the requisite statistical methods and tools;

(This amendment is partly based on Amendment 261 adopted at first reading on 14 November 2001 (A5-0376/2001) and contains new text on ageing.)

Justification

In the European Parliament's resolution on the Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions entitled 'Making a reality of the European Research Area: Guidelines for EU research activities (2002-2006)' the European Parliament established that there was a need for greater attention to be paid to the development of defence and security policy in Europe. The act of terrorism in the USA have made it clear that there is a need to strengthen close European or international cooperation in the combating of international crime. The EU must therefore guarantee funds for research in this field in order to be able to react appropriately at international level.

What concerns the ageing of the population, it is important that this section of society is not overlooked.

Amendment 61

Annex I, section 1.2.1, part A, paragraph 4, point (d a) (new)

(d a) the needs of disabled people and means to ensure their full and equal inclusion in society, to enhance the quality of life and independence of disabled people.

(This amendment is based on Amendment 262 adopted on 14 November 2001 (A5-0376/2001))

Justification

Research relating to the needs of disabled people is often scarce and scattered. It is necessary to coordinate efforts and promote cooperation at European level in order to achieve results in this area.

Amendment 62

Annex I, section 1.2.1, part A, point 1, letter (a)

(a) the modernisation and sustainability of agriculture and forestry, including their

(a) the modernisation and sustainability of agriculture – ***including development and***

multifunctional role in order to ensure the sustainable development and promotion of rural areas;

innovation in organic farming - and forestry, including their multifunctional role in order to ensure the sustainable development and promotion of rural areas;

(This reinstates the first part of amendment 192 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

Organic farming is the most coherent form of sustainable agriculture. In view of the decision of several ministers to approve the Community action plan to support organic farming, innovative methods of organic farming should play an important role in the framework programme.

Amendment 63

Annex I, section 1.2.1, part A, point 1, letter (e a) (new)

(e a) environmental technologies: development of effective but low-cost technologies to fulfil existing environmental legislation (e.g. purification of polluted waters from industry and municipalities, drinking-water purification, purification of waste gas, waste treatment technologies, desertification);

(This amendment is the same as amendment 191 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

The Commission is constantly faced by hundreds of cases of infringement of environmental law. Widely available low cost technologies will improve this situation and help the candidate countries not only to adapt their legislation but also to comply with existing environmental legislation.

Amendment 64

Annex I, section 1.2.1, part A, paragraph 5, point 2, letter (g)

(g) issues related to civil protection, including biosecurity, and crisis management.

(g) issues related to civil protection, including biosecurity, **risks arising from other terrorist threats** and crisis management.

Justification

This amendment broadens out the above point to encompass activities related in general terms to terrorist threats and more specifically to disarmament and the elimination of weapons of mass destruction.

On 14 November 2001, at first reading, Parliament adopted an amendment (Amendment 5) inserting a new recital 10a (16a) on the same subject.

Amendment 65

Annex I, section 1.2.2, paragraph 4, introductory sentence

Actions that may be carried out in the entire field of science and technology covered by Community research policy, ***will take the form of:***

These actions may be carried out in the entire field of science and technology covered by Community research policy.

They shall principally take the form of research cooperation activities (Craft), for the preparation of which SMEs may apply for an exploratory award, and of collective research activities:

(This amendment is the same as Amendment 265 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

Craft has established its position as the project type favoured by SMEs which helps to promote research-business cooperation, and tends to carry ordinary SMEs (technology followers) along with it into systematic product development, thus strengthening the technology basis and competitiveness of European industry. It would therefore be logical for the share allocated to Craft to head the list of activities and at the same time for the budget for the programme as a whole to be increased in relation to the increased share for SMEs (10% in the 5th FP and 15% in the 6th FP) or at least to be kept the same. On collective research it would be sensible to be more cautious.

SMEs still need help in the planning of projects. Exploratory funding is a concrete stimulus to proper preparation. The Commission's difficulties in administering grants of particularly small sums could be solved by streamlining the selection procedure and contract negotiations concerning preparation projects.

Amendment 66

Annex I, section I, section 1.2.2., paragraph 4, point (b a) (new)

(b a) Economic and technological intelligence activities (analyses of technological developments, applications and markets and processing and dissemination of information which may help researchers, entrepreneurs and in particular SMEs, and investors in their decision making);

(This amendment is the same as Amendment 267 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

The 'specific research activities for SMEs' and 'research and innovation' activities laid down in the chapter entitled 'Structuring research' should be incorporated in a single programme, which would rationalise and improve the synergism between the various instruments.

Amendment 67

Annex I, section 1.3, point 2, subpoint (c)

(c) The safety of citizens and anti-fraud: detection of antipersonnel mines; prevention of natural and technological hazards; networks in support of cybersecurity; fraud control technologies.

(c) The safety of citizens and anti-fraud: detection of antipersonnel mines; prevention of natural and technological hazards, ***including technical issues related to non-proliferation and disarmament of weapons of mass destruction to prevent use of the material for terrorist purposes***; networks in support of cybersecurity; fraud control technologies.

Justification

This amendment broadens out the above subparagraph to encompass activities related in general terms to terrorist threats and more specifically to disarmament and the elimination of weapons of mass destruction.

On 14 November 2001, at first reading, Parliament adopted an amendment (Amendment 5) inserting a new recital 10a (16a) on the same subject.

Amendment 68

Annex I, section 2.2, Objective

The activities carried out under this heading are intended to support the development of abundant world class human resources in all the regions of the Community by promoting transnational mobility for training purposes, the development of expertise or the transfer of knowledge, in particular between different sectors; supporting the development of excellence; and helping to make Europe more attractive to third country researchers. This should be done with the aim of making the most of the potential offered by all sectors of the population, especially women **and younger researchers**, taking appropriate measures for this purpose, **including those taken towards creating synergies in the area of higher education in Europe.**

The activities carried out under this heading are intended to support the development of abundant world class human resources in all the regions of the Community by promoting transnational mobility for training purposes, the development of expertise or the transfer of knowledge, in particular between different sectors; **creating a European Higher Education Area**; supporting the development of excellence; and helping to make Europe more attractive to third country researchers. This should be done with the aim of making the most of the potential offered by all sectors of the population, especially women, taking appropriate measures for this purpose.

(This amendment is based on Amendment 277 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

Success demands a strong link between the European Research Area and the Bologna process to create a European Higher Education Area. This link should be exploited in order to make a contribution to the creation of a European knowledge society.

Amendment 69

Annex I, section 2.3, Actions envisaged, point (e a) (new)

(e a) the local implementation of R&D linked to sustainable development by facilitating the translation of R&D into jobs and sustainable economic activities

(This reproduces the second part of amendment 321 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

This seeks to insert at this point the objective of carrying out research as defined in

amendment 321, only part of which is reinstated here (see justification to the amendment by the same author relating to Annex I, section 1.2.1, A, Policy oriented research, fifth paragraph, 3(g)b).

Amendment 70
Annex I, section 2.4, Objective

The activities carried out under this heading are intended to encourage the development of harmonious relations between science and society and the opening-up of innovation in Europe, as well as contributing to **scientists' responsiveness to societal concerns**, as a result of the establishment of new relations and an informed dialogue between researchers, industrialists, political decision-makers and citizens. The activities under this heading are *policy related* science and society initiatives, while the research activities under the thematic priorities and in particular thematic priority 7 cover in a broader manner research relating to citizens and governance.

The activities carried out under this heading are intended to encourage the development of harmonious relations between science and society and the opening-up of innovation in Europe, as well as contributing to **critical thinking by scientists in response to misgivings in society**, as a result of the establishment of new relations and an informed dialogue between researchers, industrialists, political decision-makers, **major social groups**, and citizens. The activities under this heading are *policy-related* science and society initiatives, while the research activities under the thematic priorities and in particular thematic priority 7 cover in a broader manner research relating to citizens and governance.

(This amendment is based on Amendment 287 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

Corresponds to first-reading Amendment 287, which was adopted unanimously by the House. It is important that scientists should also take misgivings in society seriously and think about what they do. In addition, the 'major social groups' should be explicitly mentioned.

Amendment 71
Annex I, section 2.4, Actions envisaged, paragraph 1, point (b a) (new)

(b a) Guaranteeing that the rapid progress of science accords with the ethical values of the majority of people in Europe;

(This amendment is based on Amendment 289 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

Corresponds to first-reading Amendment 289, which was adopted unanimously by the House. In the proposal for the specific programme the Commission maintains that the rapid advance of science should accord with the ethical values common to all Europeans. This is unrealistic because there will always be groups opposed to scientific progress on principle and they can scarcely be taken into account when opinions are formed. It is therefore proposed that scientific progress should accord with the ethical values shared by most Europeans.

Amendment 72

Annex I, section 2.4, Actions envisaged, point (c)

(c) Stepping up the science/society dialogue: new forms of dialogue with the participation of relevant stakeholders; knowledge of science by citizens; stimulation of awareness; promoting young people's interest in scientific careers; initiatives aimed at promoting the role and place of women in science and research at all levels.

(c) Stepping up the science/society dialogue: new forms of dialogue with the participation of relevant stakeholders, ***for instance environmental associations, patients' organisations, and religious communities***; knowledge of science by citizens; stimulation of awareness; promoting young people's interest in scientific careers; initiatives aimed at promoting the role and place of women in science and research at all levels.

(This amendment is based on Amendment 291 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

Corresponds to first-reading Amendment 291. Key social groups should be explicitly identified as partners in the dialogue.

Amendment 73

Annex I, title III, Actions envisaged, point A, paragraph 1, point (d a) (new)

(d a) sustainable development: implementation of Article 6 of the Amsterdam Treaty and of the conclusions of the Göteborg European Council on sustainable development.

(This amendment reinstates, in the context of the JRC, amendment 24 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

The principle of integrating the issues of the environment and sustainable development must be applied in all areas.

Amendment 74

Annex I, title III, Actions envisaged, point A, paragraph 1, point (d b) (new)

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(d b) 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 is the same as amendment 274 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

Almost all areas benefit from the results of research in other disciplines. Innovations in one area greatly stimulate innovations in others (so, for example, the most advanced information technologies are leading to discoveries in the field of biotechnology). Multidisciplinary research should be promoted at European level so as to bring together experts from all the Member States and all disciplines.

Amendment 75

Annex II, paragraph 2

These activities will be carried out under the following headings (the indicative financial breakdown is set out):

1. <i>Focusing and</i> integrating <i>Community</i> research	1. Integrating research	<i>13 600</i>
		<i>13 285</i>
Thematic priorities ¹	Thematic priorities ¹	<i>11 205</i>
		<i>11 570</i>
<i>Genomics and biotechnology for health</i>	<i>Life sciences for health and safety</i>	
		<i>2 200</i>
		<i>2 300</i>
<i>Advanced genomics and its applications</i> for	<i>(a) Genomics and biotechnology</i> for <i>global</i>	

¹ Of which at least 15% for SMEs.

¹ Of which at least 15% for SMEs.

health	1 150	health <i>and welfare</i>	1 100
Combating major diseases	1 050	(b)The major diseases	1 200
		<i>including:</i>	
		<i>cancer research</i>	400
		<i>HIV, TBC and malaria</i>	400
Information society technologies ¹	3 600	Information society technologies ²	3 900
Nanotechnologies and <i>nanosciences, knowledge-based multifunctional materials and new production processes and devices</i>	1 300	Nanotechnologies and new processes <i>of production of advanced materials</i>	1 300
Aeronautics and space	1 075	Aeronautics and space	1 075
Food quality <i>and</i> safety	685	Food quality, safety <i>and health risks and health improvement</i>	650
Sustainable development, global change and <i>ecosystems</i>	2 120	<i>Energy, sustainable development, biodiversity and global change</i>	2 120
<i>Sustainable energy systems</i>	810	Energy	810
<i>Sustainable surface</i> transport	610	Transport	610
<i>Global change and ecosystems</i>	700	<i>Sustainable development etc,</i>	700
Citizens <i>and governance in a knowledge-based society</i>	225	Citizens, <i>democracy, social and political institutions</i>	225
Specific activities covering a wider field of research	1 320	Anticipating the EU's scientific and technological needs	1 270
Policy support and anticipating scientific and technological needs	570	Policy support and anticipating scientific and technological needs	470
Horizontal research activities involving SMEs	450	Horizontal research activities involving SMEs	400
Specific measures in support of international cooperation	300	Specific measures in support of international cooperation	400
Non-nuclear activities of the Joint Research Centre	760	JRC	760
2. Structuring <i>the</i> European Research Area	2 655	2. Structuring European Research Area	2 350

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

³ Including up to EUR 350 million for the further development of Géant and GRID.

Research and innovation	300	Research and innovation	250
Human resources	1 630	Human resources/ <i>International activities</i>	1 600
Research infrastructures ¹	665	Research infrastructures	400
Science <i>and</i> society	60	Science/society	100
3. Strengthening the foundations of the European Research Area	330	3. Strengthening the foundations of the European Research Area	320
Support for the coordination of activities	280	Support coordination of activities ²	270
Support for the coherent development of policies	50	Support for the coherent development of policies	50
TOTAL	16 270	TOTAL	16 270

Justification

Self-justifying.

Amendment 76 Annex III, introductory part, paragraph 1

The Community will contribute financially, under the specific programmes, and subject to the rules for participation, to research and technological activities, including demonstration activities, of this Programme.

The Community's financial contribution to these activities, which will incorporate measures to encourage innovation, will be carried out by means of a range of four new instruments: networks of excellence, integrated projects, programmes under Article 169 of the Treaty and the stairway to excellence, which will exist for a limited period alongside some of the old instruments.

¹ ***Including up to EUR 200 million for the development of GEANT and Grid***

² ***Including collaboration and joint initiatives of specialised European scientific cooperation organisations such as CERN (European Organisation for Nuclear Research), EMBL (European Molecular Biology Laboratory), ESO (European Southern Observatory), ENO (European Northern Observatory in the Canary Islands), and the ESA (European Space Agency).***

(This amendment is the same as Amendment 296 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

This amendment retables Am 296 adopted at first reading.

Amendment 77

Annex III, section 1, Introduction, paragraph 4, indent 1

- 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. However, the size of projects is not a criterion for exclusion, and access to new instruments is ensured for SMEs and other small entities;

- The importance of the new instruments (Integrated Projects, Networks of Excellence **and the stairway to 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. However, the size of projects is not a criterion for exclusion, and access to new instruments is ensured for SMEs and other small entities;

(This amendment incorporates the title of amendment 305 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

The rapporteur incorporates the content of that amendment in his amendment 41, but without making this change.

Amendment 78

Annex III, section 1.1, paragraph 1 and 1a (new)

The purpose of Networks of Excellence is to strengthen and develop Community scientific and technological excellence by means of the integration, at European level, of research capacities currently existing or emerging at both national and regional level. ***Each Network will also aim at advancing knowledge in a particular area by assembling a critical mass of expertise. They will foster cooperation between capacities of excellence in universities,***

The purpose of Networks of Excellence is to strengthen and develop Community scientific and technological excellence by means of the integration, at European level, of research capacities currently existing or emerging at both national and regional level.

research centres, enterprises, including SMEs, and science and technology organisations. The activities concerned will be generally targeted towards long-term, multidisciplinary objectives, rather than predefined results in terms of products, processes or services.

The overall objective of Networks of Excellence (NoE) is to reinforce scientific and technological excellence in Europe by progressively integrating research capacities at the level of excellence across European countries. NoE foster cooperation between enterprises (SMEs and large firms), centres of excellence of universities and R & D centres, technology organisations; they foster cooperation in the field of strategic fundamental pre-competitive research, because every NoE has as its objective to advance the progress of knowledge related to its particular theme, with a view to attaining long-term goals. Therefore a NoE has a programme of research activities.

(This amendment reinstates Amendment 297 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

This amendment restates Am 297 adopted at first reading.

Amendment 79

Annex III, section 1.2, paragraph -1 (new)

The overall objective of an integrated research project (IP) is to achieve predefined results. The predefined results are related to the improvement of the competitiveness of European enterprises (SMEs and large enterprises) or are directed towards problem-solving research related to the eight integrating research priorities of FP6. Because IP have predefined results they focus on pre-agreed research objectives limited in time. The

cooperation amongst partners of an IP is also for the term of the integrated research project. Partners can be enterprises, SMEs, universities or research and technology organisations. The predefined results are precompetitive and related to products, processes and services. IP will never cover commercial development activities. The participants will retain ownership of the results on conditions defined by the "Rules on participation and dissemination".

(This amendment is the same as Amendment 299 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

This amendment retables Am 299 adopted at first reading.

Amendment 80
Annex III, section 1.2, paragraph 3 a (new)

At least 10% of each project must be allocated to universities for basic research.

(This amendment is the same as Amendment 301 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

This amendment retables Am 301 adopted at first reading.

Amendment 81
Annex III, section 1.2a, Stairway to excellence, paragraphs 1-5 (new)

1.2a. Stairway to excellence

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

If the European Research Area is to be brought into being, efforts will have to be pooled in the European policy for research and technological development. That being the case, European added value and a great part of its research

should be measured, according to the three essential yardsticks of excellence, critical mass, and the pioneering nature of the project, (together with the quality of its findings). Efforts will focus on projects and forms of cooperation which, having satisfied all three criteria, offer the best prospects of success.

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

This instrument must be used flexibly and provide for arrangements to accommodate other small-scale participants with innovative research projects, and the potential to meet the criteria with regard to critical mass and centres of excellence. Moreover, the stairway to excellence must be able to embrace: (a) research centres not included in the networks of excellence, (b) initiatives proposed by precompetitive research teams, (c) SMEs, and (d) projects which can form the basis of future networks, with a view to

integrating regions with similar problems and candidate countries to be incorporated into the European Research Area.

These projects should be consistent with or relevant to the main themes of the framework programme. Funding will be limited to 20% of the total budget of the framework programme. Administration may be delegated to external sources where this would be beneficial financially and administratively.

(This amendment is the same as Amendment 305 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

It is absolutely vital to operate on a European scale, bearing in mind that in many cases high-quality small-scale research teams can be found. In addition, in order to allow scope for SMEs and the applicant countries, space must be found under the programme for small-scale, high-quality innovatory actions. This will also open the way for pre-competitive groups and centres which have not previously taken part in European programmes, creating new openings for involvement in networks of excellence. The scope for taking part in the programme should also be extended to research centres and teams throughout the Union, to offset the centralised management frequently characterising other instruments.

Amendment 82

Annex III, section 1.2 a, paragraphs 6, 7 and 8 (new)

In the implementation of the Framework programme the Commission must aim to allocate 30% of the financial resources assigned to the heading 'Integrating research' to the instrument: 'Stairway to excellence'. This with the objective of creating a smooth transition from the Fifth to the Sixth Framework Programme and in order to allocate resources for smaller research projects etc. carried out under this instrument.

The Commission shall deliver to Parliament each year a status containing (for each of the four instruments):

- number of applicant and granted projects

- total and average amount of resources being applied and granted.

The status shall be accompanied by an explanation.

(This amendment is the same as Amendment 306 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

This amendment retables Am 306 adopted at first reading.

Amendment 83

Annex III, section 1.5 a, Qualitative and quantitative criteria for the structuring of the ERA (new)

1.5a Qualitative and quantitative criteria for the structuring of the ERA

Before starting to implement the activities of the European Research Area, the Commission will set out in a communication which concrete objectives it aims to achieve by it. The communication will consider, inter alia, direct outcomes such as:

- number of Marie Curie grants***
- number of exchanges of researchers***
- outcome of such exchanges.***

It will also consider indirect outcomes such as:

- publications***
- contributions to new research programmes***
- citations in professional journals***
- new patents***
- contributions to the dissemination of the results of such research.***

(This amendment is the same as Amendment 310 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

This amendment retables Am 310 adopted at first reading.

Amendment 84
Annex III, section 1.9, paragraph 1 a (new)

National programmes to be carried out jointly pursuant to Article 169 of the Treaty will be determined by the European Parliament and the Council under the codesision procedure (Article 251 of the Treaty). Whenever Article 169 is to be applied, a decision to that effect must be taken under Article 251. Subject to this stipulation of the Treaty, several proposals for decisions may be submitted to Parliament and the Council at the same time.

(This amendment is the same as Amendment 307 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

Codesision is required for the application of Article 169.

Amendment 85
Annex III, section 1.9, paragraph 1 b (new)

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

(This amendment is the same as Amendment 308 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

Cooperation between some Member States may not lead to exclusion of others. Codesision is required for the application of Article 169. Therefore all projects should be inserted in FP6.

The rules governing Community financial participation will be set out in a proposal to be submitted by the Commission to the European Parliament and the Council and will be laid down under the codecision procedure provided for in Article 251 of the Treaty. The proposal will cover all the matters to be dealt with, including the following: the division of responsibilities between and the respective specific tasks of the Community and external project managers; intellectual property rights; rules on calls for proposals aimed at outside bodies issued by external managers; publication and dissemination of findings; the definition of the management costs to be reimbursed by the Commission or borne by participants; a simplified selection procedure to enable possible project sponsors to be given an initial indication regarding the likely eligibility of such applications as they might intend to submit; to foresee mechanisms to recognise in the following call for competition research projects already judged scientifically valid by the Commission and not financed for the shortage of financial resources; transparency in relation to non-participating bodies; advance publication of possible future calls for proposals; rules on co-partnership to ensure that, when a private and a public institute are co-partners in a network of excellence, the network is not funded twice over; and detailed financial arrangements for the participation of bodies from candidate and third countries in the various instruments.

(This amendment is the same as Amendment 313 adopted at first reading on 14 November 2001 (A5-0376/2001))

Justification

Efficiency and transparency in the management of Community research programmes.

Amendment 87

Annex III, section 2, paragraph 7 a (new)

The Commission will assess the progress, results, and scientific quality of the activities carried out under the sixth framework programme and the management of those activities by its own departments and, where applicable, its contractors. In accordance with Article 5 of the Decision concerning the sixth framework programme, the Commission will call upon independent high-level experts to assess the implementation of Community activities during the preceding five years. The nature of that assessment will be both operational and strategic. In particular, the assessment will specify how far the sixth framework programme has served to establish the European Research Area and attain the Lisbon objectives.

(This amendment is the same as Amendment 317 adopted at first reading on 14 November 2001 (A5-0376/2001)).

Justification

This amendment retables Am 317 adopted at first reading.

Amendment 88

Annex III, RTD activities and Community financial contribution according to type of instrument, table, footnote 3

- | | |
|---|---|
| (3) Subject to specific conditions specific legal entities, particularly public bodies, will receive funding of up to 100% of their marginal/additional cost. | (3) Subject to specific conditions specific legal entities, particularly public bodies <i>and organisations representing enterprises</i> , will receive funding of up to 100% of their marginal/additional cost. |
|---|---|

(This amendment was not tabled at first reading but seeks, in compliance with the Rules of Procedure, to amend a part of the common position which was not contained in the proposal

submitted at first reading).

Justification

It is necessary to ensure effective action by organisations representing enterprises, particularly small enterprises, in the spirit of the European Charter for Small Enterprises.

EXPLANATORY STATEMENT

We have now reached the second reading (codecision procedure) on the sixth framework programme for research, technological development and demonstration activities (FPRTD). At first reading on 14 November 2001, Parliament, while accepting the structure and main lines of the Commission proposal, proposed a number of important changes relating, in particular, to major diseases, surface transport, energy and sustainable development, mobility and instruments for the implementation of the framework programme.

The Council has taken account of Parliament's amendments and incorporated a large number of them into its common position. At the same time, the Commission has incorporated Parliament's amendments into its modified proposals for specific programmes. **The rapporteur considers, therefore, that this is an example of good interinstitutional cooperation.**

The question which each of the three institutions must now face on second reading is whether to opt for a consensual approach or dig its heels in, which would mean having recourse to the conciliation procedure. **Clearly, however, unless the new framework programme is adopted in June 2002 under the Spanish Presidency, there is no guarantee that it will be duly launched in January 2003.**

The administrative and financial problems which marred the start of the fifth FPRTD in 1999 were largely due to the delay in adopting the programme. No institution would wish to take the blame for obstructing the process and generating the same problems. The scientific and research community would be unable to understand and accept such conduct.

The information we have received from European scientists and researchers indicates that they regard the procedure for the adoption of the sixth FPRTD as practically completed. They are more concerned at present with the practical details for the implementation of the programme than by substantive issues.

The sixth FPRTD introduces a series of new concepts, new structures and new instruments. It is therefore essential to give the scientific and research community the time it will require to adjust to, and draw maximum benefit from, the new opportunities available.

Nevertheless, while recognising a degree of convergence between the positions of Parliament and the Council respectively, we have to say that significant differences remain. So, to ensure there is no risk of the proposal being rejected due to a failure to grasp the relative importance of these differences, the latter must be identified and ranked in order of importance. Your rapporteur's aim is to come up with a limited number of amendments which, if they are adopted by a large majority, will make it possible for Parliament to focus its efforts to win over the Council, which would improve the prospects of reaching an amicable agreement.

With this aim in view, the rapporteur is continuing to work and cooperate openly while requesting colleagues to send him their comments on the provisions adopted at first reading which will be considered again at second reading. We have already drawn up a summary of the input received in this way and the rapporteur's comments. It comprises a list of various themes which were the subject of amendments on first reading and which deserve to be

considered in detail and, possibly, tabled again:

1. **Instruments**. Although the Council has abandoned the original proposal's stress on new instruments in favour of widening the choice of financial mechanisms, it has not endorsed the concept of 'stairway to excellence' as fully and deeply as Parliament wished (Amendment 305). By giving priority to the funding of priority themes via the new instruments (networks of excellence, integrated projects), there is a risk of excluding teams of researchers which were the 'stairway to excellence' targets. The rapporteur considers that there is an urgent need for clarification, in the light of the 'stairway to excellence' as defined by Parliament, of the scope of the additional instruments introduced by the Council in order to permit a smooth transition from the fifth to the sixth FPRTD.
2. **Health research**. The type of research carried out in the health field should be extended beyond genomics. The position adopted by the Council is unclear in this respect. Important amendments were adopted at first reading on the title of the first thematic priority (amendments 39, 40, 68); cancer research (and in particular the establishment of a European centre for the exploitation of research on cancer; amendments 73, 77), research on alternative or non-conventional medicines (amendment 83); combating resistance to antibiotics (82), and epidemiology and preventive action (amendment 81).
3. **Energy, transport and sustainable development**. Parliament is still strongly in favour of an explicit reference to Article 6 of the Treaty of Amsterdam and to the conclusions of the Göteborg European Council (amendment 24). Other important amendments in this context relate to technological impact (amendment 330), the integration of sustainable development and the reduction of external environmental costs (amendment 210), calculating the external costs of climate change (amendment 182), preservation of the cultural heritage (amendment 206), clarification of the objective of actions in the fields of transport (amendment 208) and energy (amendment 163), and the avoidance and reduction of transport (amendment 216).
4. **Food safety and health risks**. The amendments to be retabled relate in particular to the title (amendment 133) and the objective, as the Council's common position had placed undue emphasis on the food safety aspect (amendments 134, 137). Other important amendments relate to the application of the risk analysis method (amendment 143), technologies to promote organic farming and stockbreeding (amendment 146), analysis of the causes of food allergies (amendment 153) and research into environmental pollutants (amendment 155).
5. **Basic research, space and aeronautics**. The importance of basic research, including space research (amendment 132), should not be underestimated. Even if it does not have direct applications, it often gives rise to important new ideas. Its promotion should, therefore, be a priority objective of the framework programme (amendment 12). Other important amendments relate to the integration of aeronautics into a sustainable transport system (amendment 123) and research into the environmental and health impacts of aviation (amendment 126).
6. **Citizens, democracy, institutions**. There are important amendments relating to

protecting fundamental rights (amendment 249), better understanding of Europe (amendment 254), and interdisciplinary seminars of academics and experts (amendment 255).

7. **Anticipating needs**. The main criticism we have to make of the approach proposed by the Commission and supported by the Council concerns the proposed increase in the scale of actions, which could lead to a loss of efficiency. Other amendments which Parliament regards as particularly important relate to risks arising from weapons of mass destruction stockpiled in the former Soviet Union (amendment 5), research related to defence and security policy (amendment 261), research into the needs of handicapped people (amendment 262), research cooperation activities ('Craft'), (amendment 265) and the development of methods which do not involve testing on animals (amendments 323, 324 and 337).
8. **Structuring the European research area**. Parliament's amendments relating to the creation of a European higher education area (amendment 277) and fellowships for post-doctoral students (amendment 280) have been incorporated only to a limited extent in the common position and in the modified proposal for specific programmes. The Géant project is mentioned in the common position and the specific programmes, but not with the degree of commitment required by Parliament.
9. **Arrangements for funding by the Community**. Parliament should insist on retabling the amendments adopted at first reading, particularly amendments 311 and 313.

Naturally, there are still differences between Parliament and the Council as regards the allocation of the overall budget to the various actions (amendment 33), with particular reference to anticipating needs, **international cooperation**, the Géant project and the organisation of the European research area (distribution of funds between human resources, infrastructures and science/society).

Finally, as regards the ethical aspects of research, the rapporteur considers that the Council's position is less clear than, but not inconsistent with, the position adopted by Parliament on 14 November 2001. He does not consider that it will be in anybody's interests to reopen the debate on that point or amend the common position in that respect. Given the understandably wide differences of opinion both within Council and within Parliament, the wisest course would seem to be to confine ourselves to stating our common ethical and moral principles.