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Report from the Commission

on

**”Research and technological development activities of the European Union
2003 Annual Report”**

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INTRODUCTORY NOTE

This Commission staff Working Document relates to the Annual Report 2003 on Research and technological development activities of the European Union. It covers the period from January 2002 to March 2003. For reasons of completeness and clarity, the document occasionally covers events that have taken place outside this period, but were closely related to activities within it. The statistics cover the period from 1 January 2002 to 31 December 2002, unless otherwise indicated.

1. A EUROPEAN RESEARCH AREA UNDER CONSTRUCTION

1.1. Coordination of research policies

1.1.1 The Open method of coordination

The Council on Competitiveness of March 2003 proposed the application of the open method of coordination to the research policy and more particularly in the 5 following fields: the 3% initiative, the human resources, science and society, the infrastructures and the opening of the national programmes.

The European Council of Spring 2003 confirmed this decision and asked that a regular assessment be made on the state of progress of its implementation.

1.1.2. Benchmarking of research policies

This exercise (already presented in the Annual Report 2002²) was closed by the Athens Conference of January 2003 which made it possible to analyse the results obtained. The recommendations made at the time of this conference were taken into account for the development of similar future exercises. As this might be a potentially important tool for the implementation of the open coordination method, it was decided to develop "benchmarking" exercises primarily in the 5 fields included in the Council Conclusions cited above. Reflection started with the members of the "High level Group for Benchmarking of national RTD policies, Mapping of S&T excellence and networking of national RTD programmes" ("High Level Group") and the "steering" committee which was created to examine up to what point an exercise of "benchmarking" would be useful in the field of basic research and what questions should be addressed. The 2003 benchmarking questionnaire included questions relating to the objective of 3% of GDP being devoted to R&D.

1.1.3. Mapping scientific excellence in Europe

The pilot project on the mapping of excellence (already presented in the Annual Report 2002³) was finalised and a workshop was organised in June 2003 to evaluate their results. The latter were presented to the High Level Group in June 2003. The project made it possible to show the complexity of the exercise and to understand its limits.

Among the conclusions to be retained:

- impossibility of mapping excellence at the level of the research entities as had been initially envisaged;
- no possible generalization of the bibliometry methods used in the pilot project;
- need to develop other methodologies, as the bibliometry appears insufficient;
- any new methodology has to be conceived as a complement of what already exists in the mapping exercises carried out at national level;

² COM(2003)124

³ COM(2003)124

- any new mapping initiative has to be developed for a precise user and concentrate on a well-defined subject.

The intention was to write a report for 2003 on this exercise making it possible to extract the lessons and to examine up to what point a simplified version of a mapping exercise could be developed and incorporated into the information integrated system, henceforth called ERAWATCH. This information system, including an inventory and an intelligence service, should provide the concrete data on research policies and help the Commission and the Member States/Associated States to implement the ERA.

A draft report of Mapping of excellence in economics has been discussed during a dedicated “mapping” workshop as well as with the High Level Group in June 2003. It has been decided to publish the mapping reports together with a planned staff working paper in fall 2003.

1.1.4 Networking of research programmes conducted at national, regional and European level

The networking of research of research programmes undertaken at national, regional and European level, including the mutual opening of national RTD programmes, was actively pursued as an important step towards the creation of the European Research Area. Building on the mainly exploratory work carried out in 2001, a number of concrete mechanisms were developed in 2002 and major actions were initiated, notably the ERA-NET scheme, the first application of article 169 of the Treaty (see section 2.2.2 for details) and the mutual opening of national programmes. Steps to improve co-operation with, as well as between, European research organisations were also taken.

The ERA-NET scheme is aimed at the networking of national and regional research programmes. In 2002, the rules for the scheme were set up, the work programme was adopted and the first call for proposals was launched under FP6 on 17 December of the same year. These actions were complemented by intensive awareness campaigns in all Member States and Associated Countries and training of the National Contact Points.

The CREST launched an exploratory initiative on the opening of national RTD programmes in five pilot topics following an informal seminar of research and industry ministers held in Gerona on 1 and 2 February 2002: marine sciences, plant genomics, chemistry, astrophysics, complexity and complex system. The Commission services acted as “facilitator” by volunteering financial support to one kick-off meeting for each of the five pilot topics. Three kick-off meetings took place in 2002, in marine sciences, plant genomics and chemistry.

On its side, co-operation with **EUREKA**⁴ was stepped up. The EC inter-service group on EUREKA met on several occasions in 2002 with the regular participation of the EUREKA secretariat. EUREKA provided a list of about 100 experts on innovation issues for possible participation in proposal evaluation panels under FP6, and the Commission transferred to EUREKA best practices on project ex-ante evaluation and ex-post impact assessment. Active co-ordination between certain areas of the FP (notably the IST programme, intelligent manufacturing systems) and the respective activities with EUREKA was pursued, while exchange of information and joint events between the EUREKA network and the Commission

⁴ EUREKA is an intergovernmental initiative for technological innovation, where the European Union is represented by the Commission.

Innovation Relay Centres took place. In 2002, three activities aimed at intensifying co-ordination and synergies between the research programmes of the Union and Eureka:

- A joint working group EC-Eureka-EIB (European Investment Bank) has been set up on synergies for financing. A report has been produced in July 2002.
- The different Directorates general of the European Community, which are involved in the Eureka initiative, have increased their co-ordination.
- Several joint events between EUREKA and innovation networks of the European Community have been successfully organised.

The European Commission has pursued its support to European co-operation in the field of scientific and technical research (**COST**). The Commission services took an active part in the process of its reform. With the new participation of the Former Yugoslavian Republic of Macedonia in 2002, the total number of members has been increased to 34. 161 COST actions were underway on 31 December 2002. COST continued to develop wide research networks in Europe gathering 25.000 researchers playing an important role for scientific and technical co-operation in Europe. The Commission is convinced that COST has the potential to make a strong contribution to realising the European Research Area. It would like to change its role from that of being a rather passive service provider to one of being an active partner. In December 2002, during the transition towards a new scientific and administrative secretariat, COST designated the European Science Foundation as its implementing agent to be in charge of its secretariat during the Sixth Framework Programme.

Concrete forms of co-operation were explored with other European research organisations, notably ESF, with regard to which the co-operation mechanism on the EUROCORES programme was developed.

1.2. Mobility of researchers

The Commission set up a Steering Group with Member States and Candidate Countries with a view to have regular exchanges of view on the implementation of the initiatives launched by the Communication “A mobility strategy for the European Research Area”⁵. This Steering Group met 6 times in 2002.

The actions undertaken in 2002 were in the following fields:

- 1) Improvement of the legislative, regulatory and administrative environment of the mobility of researchers:
 - *Improvement in the conditions of entry of third country researchers to Europe*: This topic was included in the agenda of three meetings of the Migration and Asylum Committee, set up after the Laeken European Council in December 2001. Furthermore, the inventory of national practices relating to conditions of entry was completed. Its objective was to see how other Member States could benefit from national examples of good practice.
 - *Co-ordination of social security schemes*: A seminar was organised in October 2002 with the aim of discussing possible means to enable mobile researchers to better exercise their

⁵ COM(2001)331

social security rights and to create on the existing interactions between social security regulations and the mobility of researchers.

2) Improvement of information and practical assistance to mobile researchers

- *Researchers' mobility web portal*: Different actions have been initiated, such as the inventory of major internet sites, the preparation of a feasibility study which looked on the conceptual and technical conditions for the development of the portal, the mapping with the steering group on all existing web sites at national level, the setting up of the structure of the portal, the issuing of the contract for the development of the pilot phase, and, finally, the preparation of a quality charter for future information providers participating in the portal project.
- *European Network of Mobility Centres*: In April 2002, a working plan "Towards a Network of Mobility Centres" set the broad lines for the missions and the structure of the future network. A total of 40 bridgehead organisations were also appointed by the Research Ministries in order to assist the Commission and the participating countries in identifying and organising mobility centres at national level.

3) Examining issues pertinent for the development of future actions

- *Benchmarking of Human Resources in RTD*: an expert group was set up to examine and benchmark Human Resources in RTD. Its report was published in June 2002⁶.
- *Mobility between Academia and Industry*: A workshop was organised in July 2002 in order to raise a preliminary discussion on the issue of the *short* and *long term* movements between the two sectors and to raise awareness on their mutual approach and perception.

As far as the monitoring of the actions is concerned, the panel's main recommendations in 2002 were for: more comprehensive statistics; recognition of time spent in industry or outside Europe in a researchers career; improvement the level of compatibility between national systems for the research mobility web portal; guidelines to assist Member States and Associated States to establish comparable arrangements for their European Network of Mobility Centres.

1.3. The link between research and innovation

Work continued in this domain on the basis of the objectives of this activity to encourage a more favourable EU environment for innovation, to facilitate the dissemination and exploitation of research results, and to support technology transfer. This activity included in particular services offering information and assistance to innovators and their supporters.

1.3.1. The European innovation scoreboard

Following an explicit request by the Lisbon Council the Commission prepares the European Innovation Scoreboard (EIS) on an annual basis. After a pilot version in 2000, two fully-fledged versions of the EIS have been published in 2001 and 2002. The EIS is part of the "European Trend Chart on Innovation".

⁶ Benchmarking R&D Policies – STRATA-ETAN expert working group - Human Resources in RTD (including attractiveness of S&T) – final report August 2002

The Trend Chart supports innovation policy makers in Europe with “transnational policy learning”. It provides country reports on national innovation policies, trend reports, a database of national policies, and runs “innovation policy benchmarking workshops”. By the end of FP5 in 2002 the Trend Chart database held over 700 policy measures identified throughout Europe. The EIS and all other Trend Chart products are available from the Trend Chart web site under CORDIS⁷.

The EIS includes 17 indicators in four areas (human resources; knowledge creation; knowledge transfer and use; innovation markets and finance). In the area of knowledge creation it uses several “RTD key figures”. In turn, several indicators developed under the EIS are being used under the “Investing in Research” action plan. This “controlled overlap” reflects the linkage between research and innovation policies and ensures coherence between the various Commission scoreboards in neighbouring areas.

In 2002, the EIS has been complemented by several “technical papers” (e.g. papers on regional innovation performance, on acceding countries and a methodological report). Two experimental “thematic scoreboards” on “Life-long learning for innovation” and on “Biotech innovation” have also been developed.

The EIS fulfils a specific function within the family of Trend Chart products: to create awareness among policy makers and stakeholders and to stimulate change. On this basis, the more specific orientations of national and Community innovation policies are derived from the qualitative analysis in the country and trend reports. This “intelligent benchmarking” approach stimulates “learning by comparison” and avoids inappropriate “copy & paste” thinking.

2002 saw the introduction of the Innobarometer, a lighter type of survey looking at firms’ attitudes to innovation, based on the Eurobarometer opinion polling system.

Specific innovation issues, often in the area of framework conditions relevant to technology and innovation, were analysed by commissioned studies and the results published in an “Innovation papers” series. The findings in the 11 most recent Innovation papers are summarised in Entrepreneurial innovation in Europe (Innovation papers No. 27).

1.3.2. Intellectual property

Significant progress was achieved in major legislative projects, namely regarding:

- the proposal for a Directive on the patentability of software-related inventions where the European Commission presented a proposal for a Directive on the protection by patents of computer-implemented inventions on 20 February 2002;
- the proposal for a Directive on measures and procedures to ensure the enforcement of intellectual property rights presented by the Commission on 30 January 2003;
- a Regulation on the Community Patent (Common political approach adopted by the Competitiveness Council on 3 March 2003).

⁷

www.cordis.lu/trendchart

Regarding the patentability of biotechnological inventions, the first report provided for in article 16c of Directive 98/44 on the development and implications of patent law in the field of biotechnology and genetic engineering was published on 7 October 2002. In this report the Commission decided to set up an expert group in order to assist the Commission in the preparation of the forthcoming annual reports. In the meantime, the Commission continued to monitor the swift implementation in the Member States which had not done so.

Important discussions are taking place in Geneva under the auspices of WIPO relating to the Substantive Patent Law Treaty which should approximate worldwide the main substantial provisions of the patent law. In this light two workshops relating to the grace period, which is one of the more important issues discussed in Geneva, were organised by the European Commission with stakeholders from academic and industrial circles. On the basis of the conclusion of this workshop, the European Community and its Member States adopted a statement on 13 May 2003 regarding the main features that a grace period should contain.

Two expert group reports identified research-related issues and good practices regarding the use of IPR in bio-informatics and ICT-based collaborations.

As far as the FP6 is concerned, the proposed IPR provisions were adopted on 16.12.2002 (look section 2.1.3. for details). They are significantly simpler than under the FP5. They have been further developed in the model contract for FP6 research activities.

In addition, the IPR-Helpdesk⁸ resumed its operation on the 1st January 2002 for a period of three years, providing legal assistance to Framework Programmes' participants in particular on the rules of participation and dissemination of the RTD Framework Programmes, organising IPR training seminars and diffusing general IPR information.

The investigation (study and expert group) of IPR issues in publicly-funded research was pursued, with the aim of identifying good practices regarding the national regimes applicable to publicly-funded research, and the management of IPR in European universities and public research organisations. A report was published in 2003.

In the same context, the PROTON network started its work to promote the exchange of experience and good practices between the technology transfer offices of European universities and public research centres.

On 1 March 2002, the JRC took over from DG Enterprise the responsibility for management of the Communities' intellectual property. Efforts to promote innovation were continued through the organisation of entrepreneurship training for JRC researchers.

1.4. Research infrastructure

1.4.1. Developing a European approach to research infrastructure

Following an initiative by Commissioner Busquin, and on the basis of the report of an earlier expert group, Member States set up the "European Strategy Forum on Research Infrastructures" ("ESFRI"). In the wider context of the European Research Area, ESFRI can be seen as the result of the political debate that started with the Strasbourg Conference on Research Infrastructures (September 2000).

⁸ <http://www.cordis.lu/ipr-helpdesk/>

ESFRI brings together representatives (i.e. senior-decision makers) appointed by Research Ministers of all EU Member States, with the aim:

- to support a coherent and strategy-led approach to policy making on research infrastructures in Europe;
- to facilitate multilateral initiatives leading to a better use and development of research infrastructures.

These objectives are in the context that government decisions on major infrastructures of European significance are usually prepared by a complex phase of informal discussions and negotiations. So, the main challenge for ESFRI is to act as an incubator in the process of convergence that leads from such negotiations to concrete initiatives.

The function of ESFRI in meeting this challenge is threefold:

- examining the need for strategic facilities in Europe in a given domain or field of research;
- discussing the main elements in the relevant roadmap and time-schedule in each domain or field of research;
- reviewing the key factors to be taken into account in future government decisions.

Following its inauguration on 25 April 2002, ESFRI has been discussing developments in a number of domains (e.g. Neutron Sources, Free Electron Lasers, infrastructures for Marine Sciences) where ESFRI members have felt that decision making, typically at ministerial level, is required.

1.4.2. High-speed electronic networks for scientific communications

The **GÉANT** project is providing a very high performance, advanced, pan-European networking service interconnecting services provided by Europe's National Research and Education Networks. It supports the development activities of the European research and education community. New and advanced applications are being developed to exploit the network capabilities (such as Grids).

The **GÉANT** network became fully operational in November 2001 covering now 32 European countries and operating at 10 gigabit per second. This capacity sets it apart from any other research networking backbone infrastructure in the world, handling more than 1 petabytes of research traffic per month.

On top of **GÉANT**, Grids testbeds continue being deployed ensuring that the necessary technology to foster seamless and secure access to distributed resources is validated in Europe wide scale. The work of the IPv6 testbeds will soon enable **GÉANT** to carry IPv6 traffic.

Among many important activities in 2002, the following are highlighted:

- Increased interconnections with other world regions, e.g. 7.5 gigabit per second between Europe and North America.
- A study "CAESAR" was concluded to determine the feasibility of interconnecting **GEANT** with Latin American Research Networks.

- Projects were launched to extend GÉANT to the Balkans (“SEEREN”), to support the extension of GEANT to Central Asia (“SPONGE”) and to interconnect the Mediterranean countries (“EUMEDCONNECT”).
- A study “SERENATE” was launched to address technical, organisational, regulatory and economic developments and trends in networks for research with the aim of establishing a long term strategy.
- The Global Research Networking Summit was organised in Brussels (May 2002).

Electronic infrastructures to support eScience are being strengthened in FP6 by further enlarging its user base and by keeping up the technological advancements to reach hundreds of gigabits per second communications capacities and to introduce a new Grid layer. At the same time the international dimension will be enhanced by improving the scientific communications capacities with other parts of the world. The objective is to deploy a powerful Grid-empowered e-Infrastructure in Europe able to meet the requirements of ERA.

1.5. Increasing investment in research

1.5.1 *The Barcelona goal and consultation of stakeholders*

In March 2002, at the Barcelona European Council, which reviewed progress towards the Lisbon goal, Heads of State and Government agreed that research and technological development investment in the EU must be increased with the aim of approaching 3 % of GDP by 2010, up from 1.9 % in 2000. They also called for an increase of the level of business funding, which should rise from its current level of 56 % to two-thirds of total R&D investment, a proportion already achieved in the US and in some European countries. The 2002 Broad Economic Policy Guidelines of the Member States and the Community acknowledge the importance of this goal and recommend improving incentives for firms to invest in R&D while preserving sound fiscal policies.

The Commission Communication “*More research for Europe – Towards 3% of GDP*” adopted on 11 September 2002⁹ aimed at launching a debate on the ways and means of reaching the objectives for R&D investment. It identifies the various issues to be addressed and the range of policy areas which should be mobilised in a coherent manner. It sets out in each area the main objectives to be pursued.

Responses from European institutions, national administrations, public research organisations and from the private sector, were overwhelmingly supportive of the 3% objective, of its emphasis on business investment in research and on the policy objectives proposed. Many replies contained useful insights as well as recommendations that have been taken into consideration in the preparation of the action plan entitled «Investing in research: an action plan for Europe» adopted by the Commission on 30 April 2003¹⁰. The action plan comprises four main sets of actions: (i) supporting the steps taken by European countries and stakeholders, ensuring that they are mutually consistent and that they form an effective mix of policy measures; (ii) improving considerably public support to research and technological innovation; (iii) addressing the necessary increase in the levels of public funding for research;

⁹ COM(2002)499

¹⁰ COM(2003)226

(iv) improving the environment of research and technological innovation in Europe. This action plan marks the start of a process that will require determined and sustained action at European, national and regional levels.

1.5.2. Main trends in national RTD policies

Member States and Associated States to the Framework Programme have widely agreed to the approach proposed by the Commission aiming at increasing the spending on R&D in the Union to approach 3% of GDP by 2010 (see section 1.5.1 for details). They have defined their own national targets and started to develop or adapt policy measures aimed at raising their R&D and technological innovation efforts. Differences in national targets and policies reflect the large disparity in starting positions. Many Cohesion countries and Acceding Member States form a somewhat homogeneous group, where R&D intensity is not expected to rise above 2% by 2010.

In terms of policy developments, national objectives converge and aim at increasing private R&D investment through a wide range of measures aimed in particular at strengthening the link between the public research base and industry, increasing skilled human resources and creating an environment conducive to more innovation. With few exceptions, countries are engaged in initiating or strengthening fiscal incentive schemes.

In terms of governance, programmatic instruments and institutional responsibilities for elaborating and implementing national R&D policies vary a lot across countries. The focus on R&D policy has not reached the same intensity in all countries, nor has the level of integration with related policies.

1.6 Science and society

The Communication of 05.02.2003 on "The role of the universities in the Europe of knowledge"¹¹ underlined the importance of the role of the European universities, when confronted with the great challenges linked to the developments of a society and an economy based on knowledge, with the necessity to raise the level of higher education and training in all Member States, and with the efforts required to create the European Research Area.

Further, at the beginning of 2003, fifteen months after the adoption of the Action Plan by the Commission on 4 December 2001, two actions have been completed and have already entered another phase ("Women in industrial research" and "Guidelines on the use of expertise"). Eighteen actions are underway, 14 have just started and 4 have yet to start (see below and in section 3.2.3. for details).

1.6.1. CREST Science and Society clustering exercise

In the new context of "Open Method of Co-ordination", a "cluster" is an activity which is taken care of by a group of CREST members and pertains to one or more actions of the Science and Society Action Plan. One or two countries take a leading role for such a cluster of actions. CREST members of other countries might choose to join one or more clusters. Eight Action Plan Clusters have been set up in this context. They are: "Science, technology, innovation and media" (Belgium), Actions: 1, 2, 3, 4, 5; "Science weeks" (France), Actions: 7, 8, 9; "Science Education" (Slovakia), Actions: 15, 16; "Dialogue and participation"

¹¹ COM(2003)58

(Austria/Netherlands), Actions: 20, 21, 22; "Women and Science" (Germany/Slovenia), Actions: 24, 25, 26, 27; "Research and foresight" (Greece), Action 28; "Research and ethics" (Denmark/Slovenia), Actions: 29, 30, 31, 32, 33, 34; "Governance, risk and expertise" (Switzerland), Actions: 35, 36, 37.

1.6.2. Better use of expertise to improve the delivery of scientific support to policy makers

As a follow-up to the White Paper on European Governance and action 37 of the Science and Society Action Plan, the Commission adopted principles and guidelines in December 2002 on the collection and use of expertise by the Commission. Their aim is to promote good practices at all stages of Commission policy making. The Commission departments can use it to mobilise and exploit the most appropriate expertise, with a view to establishing a sound knowledge base for better policies, and upholding the Commission's determination that the process of collecting and using expert advice should be credible. Core-principles of quality, openness and effectiveness underpin the guidelines.

To meet the aims of action 37 of the Action Plan, the Commission has pursued the technical development of the internet-based network for scientific information for policy support in Europe (SINAPSE). This technical work was to be completed in the autumn 2003 in preparation for an operational pilot phase, with four main tools aiming to:

- increase dissemination and the use of scientific advice by developing an electronic library of available scientific opinions and advice issued in Europe and elsewhere;
- enable the Commission to conduct informal scientific consultation;
- give the scientific community and other stakeholders the possibility to send early warning signal and raise awareness on scientific issues;
- offer the members of the network communication tools for intra and interdisciplinary discussions.

In parallel, two studies were started in 2002. The first with the aim of providing an inventory and typology of the main scientific advisory bodies, and the second dealing with monitoring and analysing the processes by which scientific advice provision in the bio-terror case catalyses interactions among the scientific community, the policy making structures and society at large. These were completed in summer 2003 and were closely linked to the development of SINAPSE and governance initiatives aimed at a better connection between the scientific community, policy makers, stakeholders and civil society.

1.6.3. The ethical framework in research

In line with the Science and Society Action plan (Actions 30-34) the Commission has published on September 5, 2002 a call for tenders for five studies in different fields of ethics pertaining to training courses in ethics in research established in scientific faculties across Europe; national, international and professional training material for ethics in research; local ethics committees for animal welfare; codes of practice for ethics in research; producing a European directory of local ethics committees.

These studies will provide valuable information on the integration of ethics in the academic curricula (scientific faculties), the work carried out at EU level by local animal ethics committees, and a survey of existing code of conducts in research.

The Commission has also organised several meetings/workshops to implement the above-mentioned Science and Society Actions plan activities. These included:

- A workshop was organised by the European Forum for Good Clinical Practice (an NGO) with participation from candidate countries sponsored by the Commission. It was an exploratory meeting for analysing the needs for training of members of local ethics committees and identifying material and programmes offering such training.

- A meeting with chairpersons and secretaries general of national ethics councils of member states was arranged jointly with the Danish Presidency on 12 December 2002. The objective was to explore possibilities to create a Forum for informal exchange of information between national ethics committees.

- A meeting intended to develop a brochure, due for publication in 2003, for researchers in each of the candidate countries, outlining the national legislation relating to ethical issues and scientific research.

- In March 2002, the Commission has organised the conference 'Ethics in Research and Science: Situation and Perspectives in the Candidate Countries to the European Union'. The aim of the conference was to create interest and awareness amongst scientists and the science administrations in the candidate countries on questions of "ethics in science".

- To implement Action 29 of the Science and Society Action plan a meeting was organised with 14 pan-European thematic networks on ethics of science having already established common information and communication systems (web pages). Representatives from FAO, WHO, the Council of Europe, OECD attended the meeting.

The Commission services have also established two high-level expert groups.

- Group of industrial and other stakeholders on ethics and genetic testing

The Group consists of relevant industrial stakeholders, representatives of civil society (consumers, patients and medical groups) and scientific experts in the fields of biology, philosophy and law. The group discusses the ethical implications of genetic testing. Relevant International organisations attend the meeting on a regular basis (OECD, The Council of Europe, WHO).

- Group on Ethical values and Science

This group consists of six key experts in the fields of ethics, ethical debate, public participation, social psychology and public perceptions in relation to science policy. The purpose of this group is to discuss and report on how the EC might better identify underlying ethical values that exist across Member States in relation to science and technology.

1.6.4. Developing a common S/T reference system

Common Scientific Reference Systems are driven by the needs of EU policy making. To function as a scientific and technological reference centre for the Community in the areas

where its customers require it, the JRC is networking with national public and private organisations and other major players to set up, operate or contribute to common scientific and technical (S&T) reference systems.

The European Network of GMO Laboratories (ENGL¹²), inaugurated by Commissioner Busquin on 4 December 2002 and co-ordinated by the JRC, consists of 45 EU control laboratories (about 450 experts) and has the mandate to examine the different GMOs put on the market and to ensure that all national control laboratories can trace GMOs throughout the food chain. In effect, ENGL has been set up to create a forum for the EU and the European Environmental Agency to collaborate on sampling, detection, identification and quantification of GMOs. The Commission also nominated the JRC to become the Community Reference Laboratory for GMO food and feed regulations – an indicator of the JRC's role in and contribution to this key scientific area.

1.7. International and regional dimensions

1.7.1. The international dimension of the European Research Area

In line with the communication on the international dimension of the European Research Area¹³, the international cooperation activities were defined and set out in FP6 and the Specific Programmes. This prospect was also reinforced in the international scientific cooperation activities at the FP6 launching conference in November 2002 in Brussels (see section 2.3.1 for details), which was attended by high level representatives in S&T from the partner countries.

Building on work under FP5, the policy dimension of S&T cooperation was stepped up by the consolidation and/or start of bi-regional dialogue and cooperation (ASEM, ALCUE, ACP). Further, enhanced cooperation between the policies of research and external relations is a reality, in particular in certain regions of the world, heralding the opportunities to come.

1.7.2. The regional dimension of the European Research Area

Following on the October 2001 Commission Communication on the regional dimension of the European Research Area¹⁴, that focused on the role regions (sub-national entities) can play in research and innovation in Europe, efforts have been stepped-up on 4 main directions:

a) improving the interface between Regional policy and Research policy: A systematic follow-up of the activities of the Structural Funds resulted in an improved mutual understanding of policies, e.g. through the involvement in the work of the Working Group of the Member States on Urban and Territorial Development (a sub-group of the Committee of the Conversion and Development of the Regions (CCDR), the management committee of the Structural Funds). Follow-up of the ESPON¹⁵ studies programme has also been ensured, with a special focus on research related activities. Contributions have also been made in the context of the ongoing debate about the future Cohesion policy in the context of the new financial perspective (2007-2013), with a view of securing an important contribution of the Structural Policies to the development of the European Research Area.

¹² <http://engl.jrc.it/>

¹³ COM(2001)346

¹⁴ COM(2001)549

¹⁵ ESPON, European Spatial Planning Observation Network, see <http://www.espon.lu>

(b) focusing on the needs and the strategies of the acceding countries at regional level for a faster integration in the developing European Research Area: A special focus was given in the close examination of the Structural Funds programming documents of the acceding countries for the period 2004-2006.

(c) stimulating a better take-up of regional aspects in the Sixth Framework Programme and the major policy developments under the Lisbon Strategy: Work started for stimulating the regional dimension in the first wave of activities of the FP6 (thematic priorities, coherent development of policies and coordination of national and regional policies). A regional component has been integrated in the Action Plan on the Barcelona objective for raising R&D investment to the 3% of the Union's GDP (see section 1.3.2 for details). On the institutional front, the Committee of the Regions adopted a positive Opinion on the Commission's Communication on the Regional Dimension of the ERA¹⁶.

(d) improving the diffusion of policy messages through participation in conferences, workshops and Task Forces and diffusion on the Internet: Throughout the year, the policy messages on the regional dimension have been conveyed in a large number of conferences held in Brussels and elsewhere in Europe. The Commission organised a special session on regional aspects of research policy in the launching conference of the FP6 (see section 2.3.1 for details), attended by more than 500 participants and featuring prominent speakers from research active European regions, including from the candidate countries.

A new page was launched on CORDIS on the issue of the Regional Dimension, incorporating useful links for regional research operators, including the 2002 study on *Involving the regions in the ERA* (<http://www.cordis.lu/era/regions.htm>).

Concerning the Regional Innovation Measures action line, the necessary preparations for the launch of the central assistance mechanism under FP6 were finalised.

¹⁶ COTER-003 Brussels, 28 May 2002 OPINION of the Committee of the Regions of 16 May 2002 on the Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions on The Regional Dimension of the European Research Area (COM(2001) 549 final) - CdR 442/2001 fin FR-EN/CAT/ym

2. PREPARATION AND ADOPTION OF THE SIXTH FRAMEWORK PROGRAMME

2.1. Interinstitutional Negotiation

2002 saw the conclusion of the negotiations and the adoption of the proposals concerning the three elements of the "Research Package" (6th Framework Programme, participation rules, Specific Programmes). Negotiations were fruitful and made it possible to finalise the codecision procedure for the (EC) Framework Programme in 2nd reading and those of the participation rules in first reading. The Framework Programme could thus be launched at the appropriate time to meet the expectations of the scientific and industrial community.

2.1.1. The Framework Programme

The Council adopted on 28 January 2002 a common position widely reflecting the wishes of the Parliament following its opinion in 1st reading. On the instruments of implementation, the Council suggested a formulation allowing the priority use of new instruments (networks of excellence and integrated projects) in the thematic priorities, while maintaining the use of specific targeted research projects and coordination actions. On the budget, the Council endorsed the amount of 17.5 billion Euros proposed by the Commission with modifications in the distribution to approach the Parliament's position. The Council common position was largely endorsed by the Commission on 30 January 2002.

The European Parliament started its 2nd reading on the EC Framework Programme in February 2002 on the basis of the Council common position. Discussions showed that on the principal aspects of the Framework Programme (overall budget, structure/priorities, implementation), there was broad convergence between Parliament and Council, as well as on the amended proposal of the Commission, with some points to further consider, like e.g. to widen the field of "genomics and biotechnology for health" to cancer; the instruments, and in particular the aim of supporting small research entities and SMEs and of ensuring a flexible transition between the 5th and the 6th Framework Programme; ethics, and, finally, certain modifications in budgetary distribution.

Thanks to the constructive efforts of the institutions, which expressed their intention to achieve an agreement quickly, the Parliament adopted on 15 May 2002 in 2nd reading, the compromise amendments approved beforehand with the Council. This compromise was characterised by a slightly modified budgetary distribution with, in particular, a strengthening of the priority on major diseases (for cancer), and of the priorities information technology, international cooperation and science/society; by an agreement on the ethical questions reflecting the Council common position (namely, no indication of fields of exclusion in the legislative text), as it was understood that there would be a statement of the Commission indicating the fields where research will not be financed; finally, by the statement of the Commission and of the Council to include, as far as possible, a block of several amendments on the scientific and technological contents in the Specific Programmes, as Parliament wished.

Generally, it should also be noted that during the discussions on the Framework Programme, MEPs expressed great interest in the monitoring of the implementation of the Framework Programme.

The Commission adopted on 30 May 2002 an opinion showing that it accepted the compromise amendments in their entirety and the Council finally approved them on 3 June 2002. The EURATOM Framework Programme was formally adopted on 3 June 2002¹⁷ and the final adoption of the EC Framework Programme took place on 27 June 2002¹⁸ after signature by the Council and Parliament.

2.1.2. The Specific Programmes

Following the adoption, on 30 January 2002, of the amended proposals for Specific Programmes (EC and Euratom), the Parliament started in March its examination work. Within the Council, the policy debate of 11 March 2002 on the Specific Programmes revealed that explanations were necessary, in particular on the questions of committee procedures and on the number of Specific Programmes.

The Parliament adopted on 12 June 2002 179 amendments on the three proposals for the EC Specific Programmes and the two Euratom proposals. The major part of the amendments covered aspects of scientific and technological content and, to a large extent, were in line with the Commission proposals. It should be noted that any amendment seeking to redefine the ethical limits was withdrawn before the vote.

Within the Council's bodies a general agreement was reached on 24 July 2002 on all the Specific Programmes of the 6th Framework Programme by clarifying in particular the questions concerning the application of ethical principles in the research activities involving the use of embryonic stem cells, and that on variable geometry in the operation of the programme committees of the Specific Programmes "Integrating and Strengthening the ERA" and "Structuring the ERA".

On the ethical question however, additional discussions were necessary in September in order to be able to reach an agreement between the three institutions. The agreement obtained stipulates that the Commission: would submit procedural modalities concerning the research involving the use of human embryos and human embryonic stem cells; would submit a report to the Council and Parliament on the research on the human embryonic stem cells which would serve as a base for discussion for an inter-institutional seminar; would submit a proposal amending the Specific Programme "Integrating and Strengthening the ERA", establishing the guidelines for the Community financing of research projects involving the use of human embryos and human embryonic stem cells. The three institutions would do the utmost to complete the legislative procedure at the latest in December 2003.

Following this agreement, the Council adopted on 30 September 2002 the Specific Programmes¹⁹.

2.1.3. The Participation and Dissemination Rules

On 10 January 2002, the Commission put forward the amended proposals (EC and EURATOM), taking into account the political agreement of the Council at its meeting on 10 December 2001 on the 6th Framework Programme. The (EC) participation rules were the

¹⁷ OJ L 232, 29.8.2002, p. 34

¹⁸ OJ L 232, 29.8.2002, p. 1

¹⁹ OJ L 294, 29.10.2002

subject for the first time of codecision and, in this context, both Council and Parliament expressed their intention to conclude in 1st reading.

The policy debate in the Council on 11 March 2002 stressed in particular the minimum number of participants in the research projects, the evaluation and the selection of the proposals, and the joint and several liability of the participants.

The initial discussions within Parliament showed that it went in the direction of the simplified and flexible approach wanted by the Commission for the implementation of the research projects. The Parliament stressed the joint and several liability and the financing of the networks of excellence, but also the selection of the proposals, the participation thresholds, the anonymity of the proposals, the evaluation criteria and the definition of the consortium agreements.

The discussions in the Council made it possible to note a broad measure of agreement between the Council and the Parliament. The questions needing clarifications were almost the same for both bodies. This convergence made it possible to draw a compromise between Parliament and Council and to settle the principal outstanding questions, namely the arrangement of financing of the networks of excellence and the question of the joint and several liability.

On this basis, the Parliament adopted in 1st reading on 3 July 2002, the compromise amendments on the EC proposal and on the Euratom proposal. The Council adopted formally these compromise amendments in their entirety on 5 December 2002 and the signature by both institutions took place on 16 December 2002 thus making it possible to conclude the decision-making process in 1st reading²⁰.

2.2. Instruments

2002 has largely been dedicated to elaborating in greater detail the provisions for implementing the instruments of FP6, and in particular networks of excellence, integrated projects and Article 169, as well as to the preparation and submission of a formal Article 169 proposal on “European and Developing Countries Clinical Trials Partnership” (EDCTP).

2.2.1. Integrated projects and networks of excellence

An intensive communication campaign on the new instruments (integrated projects and networks of excellence) was launched in the beginning of 2002 aimed at both internal and external audiences. In the spring, seminars were organised for each of the seven thematic priorities targeted at “information multipliers” of the research community. Over the same period, two intensive workshops (one on each instrument) were held with representative cross-sections of the research community. A large-scale seminar with major research stakeholders was held in June. Special seminars for National Contact Points were held in October, while large audiences were reached during the Heysel FP6 launch conference held in November through presentations, a dedicated new instruments stand and a brochure and leaflets printed in tens of thousands of copies. Numerous presentations were made in virtually all Member States and Associated countries through the year. Working documents on the

²⁰ OJ L 355, 30.12.2002, p. 23 and p. 35

provisions for implementing integrated projects and networks of excellence were prepared and made publicly available on the Europa website.

One of the innovations of FP6 was the launching of a large-scale invitation to submit expressions of interest for topics to be potentially addressed by means of networks of excellence or integrated projects. The first invitation to submit such expressions of interest was published on 20 March 2002, with a deadline of 7 June 2002. There was an extremely enthusiastic response, with almost 12,000 submissions. The results of this exercise were published in September 2002²¹. This exercise enabled the Commission to better identify specific topics to be addressed by the new instruments in the subsequent calls for proposals.

2.2.2 *Article 169*

The Commission considered that it was in the interests of the Community, in particular within the framework of the implementation of the European Research Area, to be associated to the initiative of the Member States for a clinical trial search programme to fight against AIDS, Tuberculosis and Malaria (EDCTP), and it proposed for that purpose, for the first time, Art. 169 of the Treaty which is the subject of a codecision procedure. The Commission proposal of 28 August 2002 aimed to allow this Community participation. It applies only to the Commission proposal for the participation in the EDCTP and not in the implementation of the common structure which is the responsibility for the participating Member States.

The Parliament and the Council expressed their interest in this file and their wish to conclude in 1st reading in order for activities to be launched as soon as possible.

The Council, at its meeting on 26 November 2002, noted a broad consensus around the project under the proviso of some clarifications. The discussions in the Parliament showed that the points raised were almost identical to those of the Council. This allowed the Council to take them up to a very large extent, so that an agreement on compromise amendments could be reached. These amendments went in the direction of the approach proposed by the Commission and brought useful clarifications on the consistency of the EDCTP programme with the other Community projects and the overall policy of the Union in the field, on the desire for strengthening the partnership and the implication of the developing countries, on the need not to widen the scope but to take the coexistent infections into account in the design of the clinical trials, and on the encouragement for the participation of the private sector, namely industry.

The Parliament adopted on 27 March 2003, in 1st reading, the compromise amendments, as they were agreed with the Council. The Council approved formally this compromise on 13 May 2003 thus allowing to envisage the rapid launching of the foreseen actions. The Decision was adopted on 16 June 2003²².

2.3. **Implementation**

2.3.1. *Launch of the Sixth Framework Programme*

To accompany the launch of the Sixth Framework Programme, DG RTD published several specific documents, both on paper and on the Internet, such as: a guide 'Participating in

²¹ www.cordis.lu/fp6/eoi-instruments

²² OJ L 169, 8.7.2003, p. 1

European research’, two special issues of the RTD info magazine (on the Framework Programme and EU enlargement), the full text of the FP6 decisions, and a brochure on the European Research Area.

The FP6 launch conference took place in Brussels on 11-13 November 2002. The conference was a major success in terms of participation (8,500 participants, 200 speakers, 300 journalists; registration had to be closed 3 weeks before the event). Participants were coming from 65 countries (1,100 from the candidate countries). The feedback received from participants showed that they were satisfied with the information available and the overall organisation of the conference.

2.3.2. *Work Programme and Calls for Proposals*

Following an intensive consultation phase and the agreement of the programme committees assisting the Commission in the implementation of the Specific programmes, the Commission adopted in December 2002 three work programmes covering the EC (“Integrating and Strengthening ERA” and “Structuring ERA”) and Euratom (“Nuclear”) specific programmes.

Focusing the work programmes, considered essential to avoid unhealthy over-subscription, emerged naturally through reconciling two approaches: bottom-up, i.e. information obtained through consultations and the expression of interest exercise (see section 2.2.1 for details) and top-down, i.e. information provided by the specific programme decisions. Every effort was made to avoid too much focusing as this could lead to situations where healthy competition between proposals was prevented. In terms of the new instruments (i.e. integrated projects and networks of excellence), applicable to the priority thematic area parts of the “Integrating and Strengthening ERA” programme, the work programme:

- distinguished, where it was possible, between the subject areas suitable for the new and for the more traditional instruments;
- attempted, nevertheless, to leave as much as possible the choice of instrument to the proposer;
- offered a higher percentage of overall funding to proposals that addressed the new instruments; and
- identified, where possible, the expected number of funded projects, using the new instruments, for any given subject area.

On December 17, 2002, the Commission published the first calls for proposals for the Sixth Framework Programme. A total of 49 calls were published with an overall indicative budget of €5 billion. Most of this, around 70%, was dedicated to the seven thematic priorities areas, with 70% of that again being earmarked for the new instruments.

The activity areas of “Anticipating scientific and technological needs” (under the “Integrating and Strengthening ERA” programme), and “Research and innovation” (under the “Structuring ERA” programme) were adopted on 20 February and 28 February, 2003, respectively. The associated calls were published shortly afterwards.

The next set of calls followed the first revisions of the work programme.

3. IMPLEMENTATION AND IMPACT OF THE FIFTH FRAMEWORK PROGRAMME IN 2002

3.1. Implementation of the Framework Programme

As 2002 was the last year of the framework programme's implementation, the overall figures for the number of proposals handled and contracts signed fell slightly below those of 2000 and 2001. More specifically, some 4200 contracts were signed in 2002, with more than 23000 participants sharing financial support totalling about than €3.5 billion from the Community. The corresponding 2000 and 2001 figures were, respectively, 4800 and 5000 contracts with similar numbers of participants benefiting from €3.9 and €3.7 billion of Community contribution.

The main characteristics can be summarised as follows:

- **Shared-cost actions, particularly research and technological development (RTD) projects, continued to be the preferred means of implementation and thus the predominant means of promoting scientific co-operation and knowledge generation in the Community.** In 2002 these actions accounted for more than 74% of the budget committed and involved more than 61% of the total number of participations in contracts. Research and technological development (RTD) projects received 90% of the funding and accounted for 78% of all participations in shared-cost actions. The rest was shared between demonstration projects, combined RTD/demonstration projects, support for access to research infrastructure and specific measures in favour of SMEs.
- **The average financial contribution per contract signed (for shared-cost actions) in 2002 was €1.30 million**, similar to that of 2000 (€1.29 million) and more than that of 2001 (€1.17 million), while the average number of participants per project rose from 6.5 in 2000 and 6.26 in 2001 to 7.18 in 2002. Overall, the average financial contribution per participant continued to decline.
- **The financial support from the Community continued to be shared fairly equally between research centres, institutes of higher education and the enterprise sector.** Similar rates (roughly 1/3 for each) can be observed in terms of the participations in signed contracts.
- **The overall level of participation of the Member States and of the associated countries remained stable** even though the participation from Member States in signed contracts fell slightly from 86% in 2001 to 84% in 2002 with a corresponding increase in the participation from associated and candidate countries, from 10% to 12.5%. It should be noted that the share of this latter figure taken by the candidate countries continued its rise from 46% in 2000 and 50% in 2001 to a little over 56% in 2002.
- **The contracts signed in 2002 produced more co-operation links than in 2001:** Bodies from the Member States created approximately 92 000 links with bodies from other Member States, more than 14 000 links with bodies from the candidate countries and more than 12 000 with bodies from the associated countries. Bodies from the candidate countries created some 1 800 co-operation links among themselves.
- The importance of the Community's actions in support of the training and mobility of researchers in Europe is highlighted once again. The Marie Curie scheme awarded more

than 1 000 fellowships, representing a Community contribution of more than €142 million. A total of 165 research training networks were created providing the opportunity to 1326 research teams to interact and work together on joint projects.

Detailed data is provided in the Annex of this document. More information concerning the implementation of the Specific Programmes in the year 2002 can be found in the General Report on the Activities of the European Union for the year 2002 (chapter III, section 8²³).

Further we can note that building on its expertise in matters such as safety of food and chemicals, environment and sustainability, nuclear safety and security, the JRC continued in 2002 to provide scientific and technical support to the formulation and implementation of Community policies. In this period, the JRC recorded collaboration with more than 2000 partners in over 250 networks, and access to JRC facilities increased as did training and mobility schemes.

Lastly, the European Coal and Steel Community Steel (ECSC) RTD programme ended with the expiration of the ECSC treaty on 23 July 2002. A new Steel Research Programme (2002 - 2006) was decided by the Council on 27 February 2002 (see <http://www.cordis.lu/coal-steel-rtd/home.html>).

3.2. Impact of Community Research

3.2.1. Socio-economic impact

The assessment of socio-economic impact is an important part of Community research evaluation activities. Socio-economic and other impacts are assessed for different actors, such as industry or academic, as well as against suitable indicators, for example commercialisation of new products and processes, employment and training.

In 2002, four²⁴ research evaluations at *programme level* – either started, ongoing or completed during the year- included assessments of socio-economic impact. In general these evaluations covered research from the 4th or 3rd Framework programmes and although several are yet to be completed the emerging picture is overall positive.

Over the period covered by FP5, at least five other programme-level evaluations²⁵ have provided assessments of socio-economic impact covering issues such as supporting competitiveness, the creation of employment and the impact on standards and environmental impacts. Again, the results are broadly positive. For instance, intermediate findings from a study of 316 finished projects in the Industrial Materials Technologies (IMT), Standards Measurement and Testing (SMT) and the Transport programmes under the 4th Framework programme revealed the creation of 12,000 jobs. The non-nuclear energy programme of the 4th Framework programme provided major impacts on increased competitiveness and

²³ <http://europa.eu.int/abc/doc/off/rg/en/2002/pt0288.htm#anch0153>

²⁴ Evaluation of the socio-economic impacts of RTD projects in the field of Industrial Technologies and Transport; SME RTD development – impact assessment, statistics development and analysis; Assessment of the Commercial success of the AIR programme in the area of Bio-materials and Green Chemicals; Impact assessment of non-nuclear energy programme;

²⁵ Gender impact assessment of the 5th FP; Impact assessment of the 4th FP in the field of non-nuclear energy; Impact assessment of Confirming the International Role of Community Research under the 4th FP; Impact assessment of the Biomedical and Health Research Programme under the 4th FP; and Evaluation of finished projects in the Industrial Materials Technologies (IMT), the Standards Measurement and testing (SMT) and the Transport programmes under the 4th FP.

environmental effects. In another example, a significant share of projects in the Biomedical and Health Research Programme under the 4th Framework programme introduced protocols or guidelines into clinical practice. Several evaluations confirmed the European Added Value provided by the programmes. Further details on programme level evaluations are available in the 2002 Annual Evaluation Review²⁶. More information is presented in section 3.4 below.

3.2.2. *SME access to research*

In 2002, 1004 CRAFT proposals were received by the single entry point for SMEs. This represents an important increase from the previous year that is partly attributed to running Economic and Technological Intelligence projects. Furthermore, exploratory awards are estimated to account for one third of resulting CRAFT proposals. Finally, there was only one and final deadline for CRAFT proposals under FP5 in 2002. 231 CRAFT contracts were signed in 2002.

A collective research pilot action was introduced in 2002 to improve SMEs' access to Community funding through Industrial Associations/Groupings. 94 proposals were submitted at the first stage of the evaluation, involving 331 organisations. Of these, 18 proposals passed to the second stage of the evaluation, and finally 5 projects were selected for funding. Three of those projects started in 2002.

The SME Tech Web on-line service continued for 2002. The network of SME National Contact Points met five times in 2002, three times with the FP5 configuration and two times with the new configuration for FP6. The network received general training on FP6. Support activities e.g. training of CRAFT co-ordinators continued.

In 2002, 25 New "Success Stories", i.e. successful projects involving SMEs, were published in three languages and available on our SME TechWeb. Two issues of the Newsletters "SME Update", as well in three languages, were published.

Several information and communication events were organised, such as: launch of Esinet (Brussels - July 2002), fourth SME Technology Days (Leeds-UK - September 2002) and the Heysel Conference - Launch of FP6 (Brussels - November 2002). A total of 66 articles have resulted from this, covering all Member States as well as the candidate countries.

Finally, in 2002, with respect to the sixth framework programme, the work programme was prepared for the "horizontal activities involving SMEs" as well as for the "stepping up Economic and Technological Intelligence" activities under the "Research and Innovation" action of the "Structuring ERA" programme.

3.2.3. *Women in Community Research*

Four actions were undertaken in the context of the implementation of the Science and Society Action Plan (see section 1.5).

Action 24: Establishing a European platform of women scientists

²⁶ http://europa.eu.int/comm/budget/evaluation/keydocuments_en.htm

A call for tenders was published on 3 May for a Study on Networks of Women Scientists in preparation for the setting up of the European Platform of Women Scientists. The contract was awarded to Bradley Dunbar Associates Ltd and the study was launched in November.

Action 25: Monitoring progress towards gender equality in science

A call for tenders was published on 3 May 2002 for collecting and disseminating statistics and indicators. Furthermore, the close co-operation with the Statistical Correspondents of the Helsinki Group on Women and Science was pursued. Linked to this, was the production of the statistical annexes of the Helsinki Group Report (National Policies)²⁷ as well as the launch of a specific website.

Action 26: Mobilising women scientists in the private sector

The “**Women in Industrial Research**” (WIR) expert group of 17 members was established to provide advice to the European Commission, European Member States and industry on measures to support women research scientists working in industry. The group had three plenary meetings and the five subgroups had nine meetings all together. The report “Women in Industrial Research: A wake up call for European Industry” was finalised (presented to Commissioner Busquin on 23 January 2003) and a specific website was launched. Alongside, more than ten presentations of the group’s activities were made at international conferences, meetings of professional and industrial organisations, to the members of the Helsinki Group on Women and Science, etc. The preparatory work for the WIR Study (issued in 2003) was also accomplished, in collaboration with the Department of Applied Economics (DULBEA) of the Free University of Brussels (ULB). This action has thus been completed and calls for follow-up actions beyond 2002. These will include a major conference, the publication of best practices and the signature of a “CEO Commitment”.

Action 27: Promoting gender equality in science in the wider Europe

The “**Enlarge Women In Science to East**” (ENWISE) expert group of 15 members was set up in September 2002 to examine the situation facing women scientists in Central and Eastern Europe and in the Baltic States. The kick-off meeting took place on 28-29 October 2002. This group will deliver recommendations to improve the role and place of women in European scientific research and to increase the number of female participants from the targeted countries in research project of the FP6, to the Commission and to the respective political and scientific national institutions concerned by January 2004.

Further, the results of the Women and Science Accompanying Measures have been followed-up and well exploited. The number of press clippings on Women and Science issues reached approximately 50 in 2002.

The work of the Helsinki Group on Women and Science has helped to define enhanced co-operation (including at regional level) and to improve the links between the EU and national policies. The two regular annual meetings took place on 6-7 June (Madrid) and 5-6 December (Brussels). The second 2001 meeting was in the end held on 10-11 January 2002. Linked to the June meeting, a Women and Science Seminar was organised (Madrid, 5 June). The

²⁷ “National Policies on Women and Science in Europe”, ISBN 92-894-3579-8.

Helsinki Group Report (National Policies), including, for the first time, 30 statistical national profiles, was released on this occasion.

To increase female participation, women were regularly contacted notably through quarterly messages sent to the Women and Science Database (approx. 3000 items) and during all missions carried out by the unit members. The rates for female participation rates in the various bodies for 2002 were²⁸: Evaluation panels: 23% women; Monitoring panels: 31% women (35% in 2001); External Advisory Groups: remains stable at 28%; Programme Committees: 23% women (22% in 2001); Marie Curie Scholarships: 41%.

General awareness raising and communication activities included web site updating, database maintenance, inputs for the Commissioner, preparation for workshop on excellence, linguistic revisions, etc.

The recommendations from the gender impact assessment studies carried out throughout the programmes of FP5 were incorporated in the implementation material of FP6, such as the Work Programme, the Guidelines to Evaluators and the Guide for Proposers (gender mainstreaming). Also, a Vademecum on “Gender Mainstreaming in the 6th Framework Programme – Guidelines for scientific officers/project officers” was prepared.

3.2.4. Ethical aspects of Community research

The ethical review process was carried out in close collaboration with representatives of the various Specific programmes concerned. From January 2002 to December 2002, 75 R&D proposals went through the ethical review (12 in January, 10 in February, 22 in March, 11 in April, 13 in May; 7 in September).

3.2.5. Impact on European economic cohesion

The cohesion countries (Greece, Spain, Ireland and Portugal) benefited strongly from the Framework Programme. Organisations located in these countries accounted for 17.8% of participations by Member State organisations in contracts signed between 1 January 2002 and 30 March 2003. This is an increase compared to 2001 (16%) and 2000 (16.5%). In financial terms, organisations from the cohesion countries received 14.6% of contributions from the Community to Member State organisations, again a significant increase on 2001 (12.2%) and 2000 (13.3%). Finally, just over 31% of the cooperation links established between organisations within the European Union in 2002 included participants from the cohesion countries (compared to around 29% in 2001 and 2000).

3.3. International cooperation

3.3.1. Participation by the associated candidate countries

Dedicated additional measures to further improve participation of Newly Associated States (NAS) in FP5 (Bulgaria, Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovak Republic, Slovenia) and their integration into the European Research Area (ERA) have been launched at several levels within the thematic programmes and the International cooperation programme:

²⁸ More details on: <http://www.cordis.lu/science-society/women.htm>

- Project co-operation: possibility of NAS participants to join existing projects considering the added value of their contribution (via the thematic programmes) – (NAS 1);
- Institutional level: support to Centres with high-level added value for their integration into the ERA (via the thematic programmes) (NAS2);
- INCO level: through INCO specific accompanying measures:
 - to support conference participation and information events for NAS scientists, (also includes Turkey);
 - to enhance possibilities of training and excellence (via INCO and the Human Potential Programme).

13 Memoranda of Understanding associating Candidate Countries to the 6th Framework Programme have been prepared and negotiated. These Memoranda were signed on 29 October 2002 in Brussels during the informal Ministerial Meeting with the participation of President Prodi and Commissioners Busquin and Verheugen, as well as the Research Ministers (or their representatives) from Candidate Countries.

During the meeting, an “Action Plan” to stimulate, encourage and facilitate the participation of organisations from Candidate Countries in the activities of the priority thematic areas was endorsed. This Action Plan resulted from the long-standing dialogue and a list of measures submitted by each Candidate Country to the Commission.

Following the “Action Plan“, specific support actions were included in the Work Programme and several special calls for proposals were launched in March 2003:

- general call covering all seven priority thematic areas which aims at selecting one or more entities (public research body, public body of management, etc.) in each associated candidate country to: network the NCPs (National Contact Persons), undertake individual actions for the SMEs, network high quality centres of research and to organise information events;
- specific calls covering following priority thematic areas: Nano-technologies and nano-sciences, knowledge-based multifunctional materials and new production process and devices/Aeronautics and space/Food quality and safety/Sustainable development, global change and ecosystems (Sustainable Energy Systems, Sustainable surface transport).

The involvement of Candidate Countries was closely monitored, in particular at the occasion of regular meetings with personal representatives of the Research Ministers from Candidate Countries. These meetings were also a forum for a political dialogue on Candidate Countries’ involvement in ERA and in preparations of FP6.

In 2002, the JRC launched an additional programme called “Collaboration and advanced training” which resulted in 60 workshops and an active training programme that involved no less than 1200 scientists from Candidate Countries. Participants in this programme were nominated by the Candidate Country missions to the EU with the help of the JRC National Contact Points. The result has been a marked increase in guest scientists, for example 33 visiting scientists in 2001 quickly grew to 67 in 2002 and a further increase to over 120 was expected for 2003. This action also increased Candidate Country participation in networks.

For example at the start of FP5, Candidate Country partner representation in networks was minimal but quickly grew to a total of 270 by the end of 2002, i.e. already representing over 13% of the JRC's 2000 partners.

Based on the progress and experience gained in FP5, the JRC has drawn up a new project portfolio for FP6 in close collaboration with the newly established partners. Emphasis in the first two years will be to accelerate the uptake of the body of EU law. Workshops and training will incorporate new multimedia techniques for e-learning – such as a newly developed demonstration on GMO identification. New temporary-job openings for visiting scientists, seconded National experts and grant holders will also be sought²⁹.

3.3.2. *Other countries associated with the Framework Programme*

Switzerland was associated to FP5 from 1.6.2002 (but without the financial part of the agreement entering into force). More than 505 proposals with Swiss partners were funded in 2002.

The 3 EEA countries (Iceland, Norway and Liechtenstein) are associated to FP6 since 10.1.2003 and are treated from the beginning as associated countries. Israeli researchers are able to participate since the beginning of the FP6. Negotiations for association of Switzerland have started in 2003.

3.3.3. *Third countries*

Western Balkans: S&T co-operation with the 5 Western Balkan countries (Albania, Bosnia and Herzegovina, Croatia, the Former Yugoslav Republic of Macedonia (FYROM) and Serbia and Montenegro) has substantially developed during 2002. Two Ministerial level Regional S&T Conferences took place in Bucharest and Sophia in respectively April and September 2002, where policy orientations for short and mid-term activities have been agreed. Moreover, during the Dubrovnik Conference on S&T reinforcement (November 2002), priority sectors for regional co-operation on Science and Technology have been discussed. The conclusions of this Conference have been extensively used to set up the Western Balkans Work programme of the FP6 specific INCO activities. It is worth underlining that, for the first time, the Western Balkans is one of the four regions with which specific INCO S&T co-operation actions are developed under FP6. In this context, two INCO call for proposals have been published on December 17, 2002, the first promoting Specific Support Actions activities with a budget allocation of 600.000 € for 2003, the second focusing on Specific Targeted Research Projects and Co-ordination actions with a 2003 budget of 13,5 M€. Priority sectors for S&T co-operation apply to integrated management of regional water resources, innovative techniques for the treatment of industrial and municipal wastes, renewable energies and hybrid systems for stand-alone electricity supply, public health intervention on the post-conflict and post-trauma health problems and management of health systems. Policy co-ordination on S&T with high level representatives of these countries as well as Balkan Candidate Countries and Member States have been very active all long 2002, in view of the preparation of a Ministerial Conference held in Thessaloniki in June 2003.

New Independent States (NIS): The various bodies of the partnership and cooperation agreements provided an opportunity to discuss the themes covered by cooperation in the field

²⁹ www.jrc.cec.eu.int/enlargement

of science and technology. Under FP6, the NIS are one of the “INCO target regions”. For the first time, entities from the NIS can participate with Community financial support in the Thematic Priorities, and Specific Support Actions are foreseen in favour of NIS countries. Scientists from these countries can also benefit from the Mobility actions.

ISTC and STCU contributed to the non-proliferation of weapons of mass destruction through the redeployment of NIS military scientists to civilian activities. Through projects financed by the Community, fruitful cooperation was stimulated that could become profitable to research organisations and enterprises from Member States considering the high degree of skill and expertise that NIS scientists have gained in many fields.

Russia: The Russia-EC Science and Technology Agreement of 10 May 2001 has laid solid foundations for long-term cooperation in this field, further structured by the drawing up of an action plan, contributing to the establishment of integrated scientific networks, and to the development of joint research projects and therefore promoting international cooperation in FP6. The fields of cooperation include in particular: biotechnology for health and agriculture; information society; advanced materials and nanotechnologies; space technologies and their applications; environment; energy production including fusion, advanced nuclear fission and alternative sources of energy; and basic science. In these fields, different sectoral dialogues have been established, in particular the space dialogue between the European Union and Russia, as well as between Rosaviakosmos and the European Space Agency and cooperation has deepened, with the signature of the "Agreement between the Government of the Russian Federation and the European Space Agency on Cooperation and Partnership in Exploration and Use of Outer Space for Peaceful Purposes". This has offered further opportunities to intensify dialogue on issues of cooperation in development and operation of next generation space vehicles, global satellite navigation (GALILEO and Global Orbiting Navigation Satellite System ("GLONASS")) and monitoring systems (Global Monitoring for Environment and Security ("GMES")). Working Groups on legal and contractual aspects of FP6 as well as on questions of intellectual property related to FP6 have met at several occasions.

Ukraine: The Ukraine-EC Science and Technology Agreement has been signed on 4 July 2002 in Copenhagen. Cooperation under this Agreement may be pursued in research, technological development and demonstration activities, including basic research, in areas as diverse as: environment and climate research, including earth observation, biomedical and health research, industrial and production technologies, non-nuclear energy, social sciences research, information society technologies, science and technology policy. In this context, following the meeting, held in November 2002, of the Sub-committee dealing i.a. with Science and Technology within the framework of the Partnership and Cooperation Agreement with Ukraine, a “Joint Ad Hoc Working Group on Space” has been established. The principal functions of the working group are to reinforce the dialogue between the EU and Ukraine on Space matters, to identify areas of mutual interest and to carry forward relevant actions within the Space-related Science and Technology co-operation. **Emerging economies and industrialised countries:** The EC-India S&T Cooperation Agreement entered into force in October 2002 and the EC-Chile S&T Cooperation Agreement was signed in September 2002, whilst the EC-Brazil S&T Cooperation Agreement was initialled in December 2002. With Japan, the adoption by the EU-Japan Summit of an ambitious action plan paves the way for enhanced S&T cooperation: in this context, informal discussions were launched with a view to negotiate an S&T Cooperation Agreement.

Mediterranean countries: Two FP5 INCO-MED calls for proposals took place early 2002 with a budget of 16.4 M€. Scientific sectors promoted under this call apply to the integrated management of limited water resources in the Mediterranean, the protection and restoration technologies and methodologies of the Euro-Mediterranean Cultural heritage and health. 150 proposals have been submitted from which 27 were selected for Community funding for a total amount of 20.63 M€. In conformity with the conclusions of the 8th Monitoring Committee for Euro-Mediterranean S&T Co-operation, five scientific expert workshops took place in May and June 2002 on Water (Marrakech), Health (Tunis), Cultural Heritage (Athens), Renewable Energies (Nicosia) and final synthesis of results (Barcelona). Presentations, debates and conclusions of these events have been published on CD-ROM and Videotape supports. The results of the expert's workshops have been used to elaborate the 2003 FP6 INCO-MED Work Programme. The latter has been implemented through two INCO call for proposals, published on December 17, 2002. The first is an open call promoting Specific Support Action activities with a budget allocation of 600.000 € for 2003; the second focuses on Specific Targeted Research Projects and Co-ordination actions with a 2003 budget of 25 M€. Priority sectors for S&T co-operation apply to integrated management of limited regional water resources, including water consumption for plant breeding and energy implications in water treatment and reuse; innovative technologies for protection and conservation of Cultural Heritage, methodologies for simulation, recreation and adaptive reuse of monuments and sites in the Mediterranean Area; public health and health care systems.

A mandate for negotiation has been approved by the Council of Ministers on November 5, 2002, in view of renewing the association of Israel to the 6th FP. Negotiations took place during December 2002 and the EU/Israel S&T agreement was initialled in Brussels on December 17, 2002.

Finally, in May and June 2002, Egypt, Morocco and Tunisia requested to the Commission the conclusion of a bilateral co-operation Agreement on Science and Technology. The Commission initiated internal procedures in order to obtain a mandate for negotiation from the Council for each of them. Negotiations were held during 2003. These agreements opened new perspectives to better integrate these Mediterranean Partner Countries to the European Research Area and, subsequently, to the entire gamut of activities promoted under FP6.

Developing countries: the Commission was involved in the reorganisation of agricultural research at world level, particularly in sub-Saharan Africa. The Framework Programme also generated initiatives on subjects of strategic importance to the developing countries, such as the development of aquaculture, measures to combat desertification and the conservation of tropical forests.

Preparatory work was also undertaken to strengthen research on neglected communicable diseases, i.a. by support to work on private sector R&D incentives together work with OECD. A call for proposals to cover research issues in reproductive and child health was issued at the end of 2002.

3.3.4. *Bilateral regional dialogues and international commitments*

In the context of its inter-regional relations, the Community continued its bilateral and regional dialogues on RTD with Asia (ASEM), Africa, Mediterranean (MoCo and follow-up to the Cairo Summit) and the Latin American and Caribbean countries (REALC). In particular, EU-Latin American/Caribbean S&T cooperation progressed decisively with the

adoption in March 2002 of the Brasilia S&T Declaration. These dialogues focus on issues of regional importance and fit in with the EU's external relations policy to forge closer partnerships with these regions in the context of the emerging knowledge-based society and support for regional integration. The Commission has provided continuing support to the follow-up of these dialogues, channelling concrete bi-regional coordination initiatives to the relevant programmes in FP6. In addition, the possibilities were explored in the identification of synergetic investments in Science and Technology, Innovation and Higher Education, in selected countries of Latin America.

The EU/ACP dialogue entered in a new phase with the holding of the Cape Town ACP/EU ST Forum end of June hosted by M. Ngubane, Minister for Science and Arts of the Republic of South Africa. It constituted the first ACP Ministerial conference on the subject and resulted in the adoption of the ACP Action plan on Research for sustainable development and the Cape Town declaration (documents available on www.acpsec.org). Both documents call for investing 1% of GDP of ACP states in ST and for ACP wide co-ordination of research activities in a number of well defended fields in support sustainable development of ACP.

The Forum had been prepared by an interservice group of the Commission services responsible for research, development and external aid, enlarged to the ACP General Secretariat producing a joint document stressing the role of science and technology in the eradication of poverty and the realisation of the principles of sustainable development. A joint EU/ACP expert meeting in the frame of the Forum brought this documents further to serve as a common basis for the development of synergies between the EU's development co-operation policy on one hand and the research policies on the other. A joint resolution for the May 2003 EU /ACP Council was prepared.

Other activities involved the preparation of the WSSD in Johannesburg and the Ubuntu Workshop on ST for sustainable development organised together with the RSA Department of Science and Technology with Ministerial participation.

3.4. Assessment of the Framework Programme

The nature of evaluations at programme level, tailored to individual set-ups, limits the extent to which an aggregate picture across the whole Framework programme can be compiled. However, an overall assessment will be provided in the forthcoming Five-year assessment that will cover the period 1999-2003. To that effect, an impact study was launched in 2002 for the 3rd and 4th Framework programmes and 5th Framework programme studies were launched in 2003.

During 2002, the socio-economic relevance of FP5 as a whole was assessed. A study³⁰ examined Specific Programmes and Key Actions from the perspective of their socio-economic relevant features and analysed the use of RTD projects as inputs to EU policy formation. Although not exhaustive, the study found 20 major references across programmes and Key Actions ranging from the fight against communicable diseases to the promotion of intermodal transport options.

³⁰ 'The overall socio-economic dimension of community research in the fifth European framework programme', Directorate-General for Research, Improving Human research Potential and the socio-economic knowledge base, 2003

At *national level*, impact assessments and studies of country participation in Community research have tended to be examined in parallel. 2002 saw the completion of studies from France and the Czech Republic. Other studies completed during the period of FP5 (covering research from the 4th FP or before) came from Austria, Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Luxembourg, Netherlands, Sweden, United Kingdom.

Study findings reveal – despite of various situations across the participating countries – that in general Community research has an impact both in terms of research results and on the operation of national research systems. Findings include the fact that in Germany³¹ the FP has developed to become a core part of publicly funded research covering more than 40% of manufacturing firms. In Ireland³² EU funding was shown to have been crucial for the growth of very successful companies as star research performers. Furthermore, the strength and even existence of the university research community was partly attributed to its participation in successive Framework programmes. Also, in Austria³³ it was concluded that the Framework programmes attract the elite of the business sector. A UK study³⁴ showed commercialisation of new products and processes to be less important, while benefits associated with knowledge and network building were significant.

A major *methodological study* on different approaches to the assessment of the socio-economic impact of Community Framework programme research was concluded during 2002³⁵. The findings will feed into the development of a new strategy for Community research evaluation.

The *2002 monitoring exercise* continued with the revised approach adopted in 2001, notable features of which are separate monitoring of the implementation of the European Research Area and better synergy between monitoring of the Framework programmes and specific programmes³⁶. The issues raised in the recommendations from the 2002 Framework Programme Monitoring Panel concern:

- Clarification on the **new instruments** (integrated projects and networks of excellence) and **advisory groups** under the 6th framework programme;
- Better use of **research infrastructures** and co-ordination and co-financing of large facilities;
- Linkage of the Commission's **human resources management** to the activity based management processes to increase efficiency;

³¹ 'Europäische Forschungsrahmenprogramme in Deutschland', BMBF, 2001

³² 'The 4th Framework Programme In Ireland', Forfas, 2001

³³ 'Evaluation of Austrian Participation in the 4th EU Framework Programme for Research', BMBWK, 2000

³⁴ 'Impact of the EU Framework programmes in the UK', DTI, 1999

³⁵ 'Assessing the Economic Impacts of the Framework Programme', Directorate-General for Research, 2000, available at <http://www.cordis.lu/fp5/monitoring/studies.htm>

³⁶ The list of monitoring reports is as follows: Framework Programme; European Research Area Activities; Quality of Life and Management of Living Resources; User Friendly Information Society; Competitive and Sustainable Growth, Non-Nuclear Energy; Environment and Sustainable Development; Confirming the International Role of Community Research, Promoting Innovation and Encouraging SME Participation; Improving Human Research Potential and the Socio Economic Knowledge Base; Nuclear Fission and Radiation Protection, Controlled Thermonuclear Fusion. Reports are available at: <http://www.cordis.lu/fp5/monitoring>

- Increased focus on **dissemination of research results** and of systematic **impact assessment of programmes** based on clear objectives, performance indicators and continuous data collection;
- Maintenance of a high level of communication and targeted actions in the **candidate countries**;
- Clarification and rethinking of the role of **SMEs** in FP6;
- Change of the **Framework programme duration** to six or seven years to achieve the longer term objectives set with the ERA.
- Reconfiguration of the **monitoring** towards an essentially internal management process complemented with external mid term review.

The 2002 monitoring included a review of the overall outcome and follow-up of the monitoring exercises from 1999-2001 on which the above last recommendation is based. Some of the recurring themes mentioned were:

- further definition of and progress towards the European Research Area;
- the importance of the ‘international dimension’ of framework research;
- the role and needs of SMEs in Community research;
- better understanding and new measures to support innovation;
- strengthened gender issues in design and implementation of programmes;
- improved implementation and management processes;
- strengthened approach to impact assessment.

4. CONSULTATION AND PROCEDURE MONITORING

4.1. Scientific and Technical Research Committee (CREST)

The work of CREST was marked by the production of several reports, for example on the research infrastructures, on the Commission Communication "More research for Europe: Towards 3% of GDP" and others.

The CREST also formulated an opinion on the scientific and technological contents of the "8th priority" of the Specific Programme "Integrating and Strengthening ERA" of the 6th Framework Programme. This opinion was drawn up at the request of the Council in order to move forward the discussion in its groups and to allow a rapid adoption of the texts.

The CREST was regularly consulted on the implementation of the European Research Area, on its strategic guidelines and the means to be implemented to achieve the established goals. Several presentations were made to it by the Commission on the following Communications: on the international dimension of the European Research Area; on the Action Plan "Science and Society"; "More research for Europe: Towards 3% of GDP"; on "European Research Area: Providing new Momentum"; on the role of the Universities. It was also informed of the reports and work on monitoring and the evaluation, on the first cycle of exercise of benchmarking, on a feasibility study pertaining to an integrated information system on the national technological research and development policies. It continued its work on the opening of the national programmes, by retaining five areas chosen to be pilot fields: marine sciences, chemistry, plants genome, complex systems, astrophysics.

It was also regularly informed of the implementation of the 5th Framework Programme, and of the process of adoption of the 6th Framework Programme, then of its implementation (calls for an expression of interest, calls for proposals, model contracts, evaluation, programme committees...). The CREST set up several networks on the evaluation of the national policies and technological research and development programmes; on the exercise of "clustering" relating to the "Science and Society" Action Plan (see section 1.5.1); on governance and the scientific opinion.

Lastly, the CREST started reflection on the role that it could have in the open Method of Coordination.

During this period Turkey was invited to the meetings as an observer.

4.2. External Advisory Groups

The seventeen FP5 External Advisory Groups finished their work in 2002. Twelve new Advisory Groups (AG) were created to cover the research activities and areas of FP6³⁷

The new AGs under FP6 provide the Commission with advice on the overall strategy to be followed in the development in the various research activities, as well as on the creation of the European Research Area. The relevant Commission services provide the scientific secretariat and take care of all practical arrangements for the AGs.

³⁷ Their composition can be found at <http://www.cordis.lu/fp6/eags.htm>

Members participate in the groups in their individual capacity and each group ensures a balanced participation with respect to expertise, geographical origin (including candidate and associated countries), sector of origin and gender.

The AGs already met in 2002 dealing mainly with the establishment of the work programmes and the preparation of the first call for proposals under FP6.

For the year 2003 the main task for the AGs was to prepare the revision of the work programmes in view of the next FP6 calls for proposals. Other could include more horizontal issues, such as science and society, human resources and innovation.

4.3. Programme Committees

2002 was the last year of operation for the programme committees of the Specific programmes and for the rules for participation and dissemination for the Fifth Framework programme for R&D (EC and Euratom). These committees have efficiently continued and concluded their business maintaining, as in the previous years, the good spirit of collaboration between the Commission and the representatives of the States that sat in them. Their role in the smooth implementation of the Fifth Framework programme was greatly appreciated.

The committees met more than 20 times in 2002. They were consulted approximately 190 times, at the behest of the Commission, principally on the draft decisions on the selection of proposals. All the opinions given were favorable. The Commission also consulted the committees informally for exchanges of views or for information. In all, these consultations led to the adoption, by the Commission, of around 190 acts to implement the specific programmes.

In the last few months of 2002, the two new programme committees under the two Specific programmes for the Sixth Framework Programme for research, technological development and demonstration and the programme committee for the Euratom Specific programme have started their work. These new committees have been consulted quickly and effectively on the first Workprogrammes for the Specific Programmes. Their support for the Commission's proposals made easier the timely launch of the new Framework Programme at the end of 2002. An important new element in the work of the EC programme committees is their work in configurations that relate to the priorities and domains of the Specific Programmes (along with those that cover certain horizontal aspects), while at the same time keeping their integrity as one single programme committee for each Specific Programme.

4.4. European Research Advisory Board (EURAB)

2002 saw the first full year of the operation of the European Research Advisory Board (EURAB), a high level, independent, advisory committee set up by the Commission in September 2001 and consisting of 45 top experts to provide advice on the design and implementation of Community research policy³⁸. A unique feature of EURAB's experience since its inception has been the close collaborative patterns, which emerged between members coming from academia and industry.

³⁸ For the composition and opinions of EURAB, see Annual report 2002 and <http://europa.eu.int/comm/research/eurab>

EURAB has focused its attention on the creation of the European Research Area and the use of policy instruments such as the Framework Programmes, delivering advice and opinions on specific issues either at the request of the Commission or on its own initiative.

In 2002 EURAB held four plenary meetings in Brussels and established seven working groups dealing with “Role of universities and ERA”, “Enlargement and ERA”, “Evaluation”, “ERA scope and vision”, “Improving innovation”, “Increasing the attractiveness of science, technology, engineering careers” and “Boosting joint investment in R&D”. The recommendations produced were presented to the Commission and published, both as a document and on the EURAB website (EURAB Advice 2001-2002). Many of the recommendations of EURAB guided the Commission in the preparation of communications linked to the issues dealt with by EURAB. Three of the working groups ceased to exist after presenting their recommendations, whilst the remainder continued their work in 2003 together with two new working groups on “SME’s and ERA” and “ERA and the social sciences and humanities”. EURAB has produced a Report of Activities (2001-2003) which is also available on the website.

EURAB also provided an input to the European Convention, focusing on the important role of research and technology. Some elements from this input were taken up in the Convention text presented to the European Council in June 2003.

In 2003 EURAB concentrated on consolidating its recommendations in a joint effort to turn the ERA into a European success tool and has started to elaborate a more long term vision.

ANNEX

INTRODUCTORY REMARKS

- The present statistical report on FP5 implementation covers the period from 1 January 2002 to 31 December 2002, unless it is stated otherwise.
- In the group called “Candidate and associated countries”, Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia are both candidate and associated. Turkey is a candidate country but not associated. Iceland, Liechtenstein and Norway are associated in the framework of the European Economic Area, and Switzerland and Israel are associated in the framework of an association agreement.
- It is not possible to calculate national “success rates” from the number of proposals received, selected and funded since a proposal selected in year n might have been received in year n-1 or might not receive funding until year n+1.
- The figures on fellowship contracts show the number of proposals received, selected and funded. Depending on the type of grant, a single proposal could allow funding of one or more fellows. The number of fellows cannot be seen from the number of participants in the contract.
- Participation of a given country in signed contracts is defined as the total number of entities from this country acting as participants in contracts. It is implied that a given entity is counted more than once if it is involved in more than one contract.
- A cooperation link is considered to have been established between two bodies if they are participating in the same project. This cooperation link is counted once if the two bodies are from the same country (diagonally on the cooperation links matrix) and twice if the bodies are from different countries - once as a link from country A to country B and once as a link from country B to country A. The net number of cooperation links is, therefore, the sum of the number of links between bodies from the same country plus half the number of links between bodies from different countries.

TABLE 1A: PROPOSALS RECEIVED IN 2002

	PROPOSALS RECEIVED IN 2002				
	A	B	C=B/A	D	E=D/A
	Number of proposals	Number of participations	Average number of participations per proposal	Requested financial contribution (€ million)	Average requested financial contribution per proposal (€ million)
Shared cost actions	3.705	27.114	7,32	4.203,63	1,13
<i>R&D projects</i>	<i>2.404</i>	<i>16.812</i>	<i>6,99</i>	<i>3.358,43</i>	<i>1,40</i>
<i>Demonstration projects</i>	<i>30</i>	<i>191</i>	<i>6,37</i>	<i>32,82</i>	<i>1,09</i>
<i>Combined projects</i>	<i>222</i>	<i>1.669</i>	<i>7,52</i>	<i>239,71</i>	<i>1,08</i>
<i>Support for infrastructure</i>	<i>17</i>	<i>107</i>	<i>6,29</i>	<i>17,94</i>	<i>1,06</i>
<i>Cooperative research</i>	<i>1.028</i>	<i>8.298</i>	<i>8,07</i>	<i>552,74</i>	<i>0,54</i>
<i>Exploratory awards</i>	<i>4</i>	<i>37</i>	<i>9,25</i>	<i>1,99</i>	<i>0,50</i>
Fellowships	1.237	1.237	1,00	173,18	0,14
Support for networks	418	4.461	10,67	342,25	0,82
Concerted actions	72	732	10,17	52,03	0,72
Accompanying measures	2.704	8.673	3,21	891,66	0,33
Total	8.136	42.217	5,19	5.662,75	0,70

TABLE 1B: PROPOSALS SELECTED FOR FUNDING IN 2002

	PROPOSALS SELECTED FOR FUNDING IN 2002				
	A	B	C=B/A	D	E=D/A
	Number of proposals	Number of participations	Average number of participations per proposal	Requested financial contribution (€ million)	Average requested financial contribution per proposal (€ million)
Shared cost actions	733	5.375	7,33	758,10	1,03
<i>R&D projects</i>	480	3.278	6,83	597,87	1,25
<i>Demonstration projects</i>	5	39	7,80	4,80	0,96
<i>Combined projects</i>	41	325	7,93	38,45	0,94
<i>Support for infrastructure</i>	16	100	6,25	15,96	1,00
<i>Cooperative research</i>	191	1.633	8,55	101,02	0,53
<i>Exploratory awards</i>	0	0	0,00	0,00	0,00
Fellowships	341	341	1,00	47,74	0,14
Support for networks	108	1.354	12,54	90,19	0,84
Concerted actions	29	364	12,55	20,67	0,71
Accompanying measures	564	2.041	3,62	209,64	0,37
Total	1.775	9.475	5,34	1.126,34	0,63

TABLE 1C: CONTRACTS SIGNED IN 2002

	CONTRACTS SIGNED IN 2002				
	A	B	C=B/A	D	E=D/A
	Number of contracts signed	Number of participations	Average number of participations per contract	EC financial contribution (€ million)	Average EC financial contribution per contract (€ million)
Shared cost actions	1.969	14.129	7,18	2.567,27	1,30
<i>R&D projects</i>	<i>1.456</i>	<i>11.050</i>	<i>7,59</i>	<i>2.293,93</i>	<i>1,58</i>
<i>Demonstration projects</i>	<i>32</i>	<i>226</i>	<i>7,06</i>	<i>55,75</i>	<i>1,74</i>
<i>Combined projects</i>	<i>35</i>	<i>406</i>	<i>11,60</i>	<i>61,63</i>	<i>1,76</i>
<i>Support for infrastructure</i>	<i>26</i>	<i>72</i>	<i>2,77</i>	<i>12,23</i>	<i>0,47</i>
<i>Cooperative research</i>	<i>243</i>	<i>2.021</i>	<i>8,32</i>	<i>139,82</i>	<i>0,58</i>
<i>Exploratory awards</i>	<i>177</i>	<i>354</i>	<i>2,00</i>	<i>3,91</i>	<i>0,02</i>
Fellowships	1.064	1.064	1,00	142,09	0,13
Support for networks	361	4.693	13,00	417,14	1,16
Concerted actions	52	669	12,87	36,34	0,70
Accompanying measures	806	2.517	3,12	306,97	0,38
Total	4.252	23.072	5,43	3.469,81	0,82

TABLE 2A: CONTRACTS SIGNED IN 2002 BY TYPE OF ACTION

	ALL CONTRACTS SIGNED					SHARED COST ACTIONS		FELLOWSHIPS		SUPPORT FOR NETWORKS		CONCERTED ACTIONS		ACCOMPANYING MEASURES	
	A	B	C=B/A	D	E=D/A	F	G	H	I	J	K	L	M	N	O
	Nr of contracts signed	Nr of participations	Average nr of participations per contract	Community financial contribution (€ Mio)	Average financial contribution per contract (€ Mio)	Nr of contracts signed	Community financial contribution (€ Mio)	Nr of contracts signed	Community financial contribution (€ Mio)	Nr of contracts signed	Community financial contribution (€ Mio)	Nr of contracts signed	Community financial contribution (€ Mio)	Nr of contracts signed	Community financial contribution (€ Mio)
QUALITY OF LIFE	729	4.123	5,66	641,87	0,88	432	573,01	172	19,80	18	16,95	34	20,26	73	11,86
Food, nutrition and health	85	460	5,41	58,72	0,69	57	55,29	26	2,86	0	0,00	1	0,52	1	0,05
Control of infectious diseases	92	519	5,64	87,92	0,96	58	81,18	13	1,41	2	0,49	4	1,82	15	3,02
The "cell factory"	81	414	5,11	92,99	1,15	55	89,89	24	2,73	0	0,00	0	0,00	2	0,38
Environment and health	51	295	5,78	51,32	1,01	29	47,03	20	2,21	1	1,00	1	1,09	0	0,00
Sustainable agriculture, fisheries and forestry	189	996	5,27	131,27	0,69	132	118,20	35	4,03	3	2,10	8	5,62	11	1,32
The ageing population and disabilities	73	467	6,40	59,82	0,82	37	51,00	18	2,11	2	2,55	8	2,75	8	1,41
RTD activities of a generic nature	135	812	6,01	134,74	1,00	55	116,00	33	4,17	4	4,07	10	5,41	33	5,10
Support for infrastructure	23	160	6,96	25,09	1,09	9	14,43	3	0,29	6	6,75	2	3,05	3	0,57
INFORMATION SOCIETY	824	5.398	6,55	958,09	1,16	467	734,13	25	5,94	71	47,63	0	0,00	261	170,39
Systems and services for the citizen	85	597	7,02	118,19	1,39	51	88,75	0	0,00	0	0,00	0	0,00	34	29,44
New methods of work and electronic commerce	125	936	7,49	110,33	0,88	57	66,15	0	0,00	17	9,75	0	0,00	51	34,43
Multimedia content and tools	89	591	6,64	113,92	1,28	66	103,40	0	0,00	6	3,54	0	0,00	17	6,98
Essential technologies and infrastructure	188	1.104	5,87	272,08	1,45	116	226,78	0	0,00	2	1,48	0	0,00	70	43,82
Cross-programme themes	99	828	8,36	175,40	1,77	80	155,22	0	0,00	2	1,80	0	0,00	17	18,37
RTD activities of a generic nature	109	584	5,36	93,28	0,86	90	87,66	0	0,00	7	5,46	0	0,00	12	0,15
IST support activities	126	741	5,88	73,23	0,58	6	5,20	25	5,94	36	25,35	0	0,00	59	36,75
Research Networks	3	17	5,67	1,66	0,55	1	0,96	0	0,00	1	0,25	0	0,00	1	0,44
SUSTAINABLE GROWTH	559	5.075	9,08	702,83	1,26	407	593,61	22	2,47	48	66,16	1	1,65	81	38,95
Innovative products, processes and organisation	231	2.065	8,94	220,94	0,96	178	192,67	8	1,02	15	19,77	0	0,00	30	7,47
Sustainable mobility and intermodality	35	447	12,77	77,47	2,21	16	48,74	0	0,00	5	8,52	1	1,65	13	18,56
Land transport and marine technologies	73	732	10,03	105,04	1,44	58	95,79	2	0,16	5	5,90	0	0,00	8	3,19
New perspectives for aeronautics	49	530	10,82	156,97	3,20	37	145,39	1	0,11	5	6,87	0	0,00	6	4,60
RTD activities of a generic nature	159	1.075	6,76	124,60	0,78	118	111,01	11	1,18	6	7,29	0	0,00	24	5,12
Support for infrastructure	12	226	18,83	17,82	1,48	0	0,00	0	0,00	12	17,82	0	0,00	0	0,00

	ALL CONTRACTS SIGNED					SHARED COST ACTIONS		FELLOWSHIPS		SUPPORT FOR NETWORKS		CONCERTED ACTIONS		ACCOMPANYING MEASURES	
	A	B	C=B/A	D	E=D/A	F	G	H	I	J	K	L	M	N	O
	Nr of contracts signed	Nr of participations	Average nr of participation per contract	Community financial contribution (€ Mio)	Average financial contribution per contract (€ Mio)	Nr of contracts signed	Community financial contribution (€ Mio)	Nr of contracts signed	Community financial contribution (€ Mio)	Nr of contracts signed	Community financial contribution (€ Mio)	Nr of contracts signed	Community financial contribution (€ Mio)	Nr of contracts signed	Community financial contribution (€ Mio)
ENERGY & ENVIRONMENT	511	3.976	7,78	549,79	1,08	341	475,66	40	5,55	19	26,24	9	9,45	102	32,89
<i>ENVIRONMENT</i>	282	2.294	8,13	307,49	1,09	179	262,58	25	3,65	12	15,98	7	8,24	59	17,03
Sustainable management and quality of water	57	420	7,37	61,29	1,08	38	52,27	6	1,30	0	0,00	1	3,79	12	3,93
Global change, climate and biodiversity	80	661	8,26	82,86	1,04	43	66,84	5	0,69	4	4,83	6	4,45	22	6,05
Sustainable marine ecosystems	45	258	5,73	51,60	1,15	27	48,27	11	1,29	0	0,00	0	0,00	7	2,04
The city of tomorrow and cultural heritage	52	502	9,65	56,01	1,08	38	47,54	3	0,38	4	5,73	0	0,00	7	2,35
RTD activities of a generic nature	35	259	7,40	34,97	1,00	25	31,55	0	0,00	1	0,93	0	0,00	9	2,49
Support for research infrastructures	13	194	14,92	20,76	1,60	8	16,10	0	0,00	3	4,50	0	0,00	2	0,16
ENERGY	229	1.682	7,34	242,30	1,06	162	213,09	15	1,90	7	10,26	2	1,21	43	15,85
Cleaner energy systems, incl. renewables	112	780	6,96	114,61	1,02	81	102,81	5	0,83	2	2,40	2	1,21	22	7,37
Economic and efficient energy	105	726	6,91	116,83	1,11	74	106,78	10	1,07	3	4,11	0	0,00	18	4,87
RTD activities of a generic nature	10	165	16,50	7,39	0,74	7	3,50	0	0,00	2	3,75	0	0,00	1	0,15
OPE ³⁹	2	11	5,50	3,47	1,73	0	0,00	0	0,00	0	0,00	0	0,00	2	3,47
NUCLEAR ENERGY	176	261	1,48	31,32	0,18	151	27,67	7	1,00	4	1,94	1	0,16	13	0,55
Controlled thermonuclear fusion	144	147	1,02	21,89	0,15	141	21,45	3	0,44	0	0,00	0	0,00	0	0,00
Nuclear fission	10	30	3,00	0,82	0,08	0	0,00	1	0,15	1	0,25	0	0,00	8	0,42
RTD activities of a generic nature	17	60	3,53	6,29	0,37	8	5,59	3	0,41	0	0,00	1	0,16	5	0,13
Support for infrastructure	5	24	4,80	2,32	0,46	2	0,64	0	0,00	3	1,69	0	0,00	0	0,00

³⁹

Organisations for the Promotion of Energy Technologies.

	ALL CONTRACTS SIGNED					SHARED COST ACTIONS		FELLOWSHIPS		SUPPORT FOR NETWORKS		CONCERTED ACTIONS		ACCOMPANYING MEASURES	
	A	B	C=B/A	D	E=D/A	F	G	H	I	J	K	L	M	N	O
	Nr of contracts signed	Nr of participations	Average number of participations per contract	Community financial contribution (€ Mio)	Average financial contribution per contract (€ Mio)	Nr of contracts signed	Community financial contribution (€ Mio)	Nr of contracts signed	Community financial contribution (€ Mio)	Nr of contracts signed	Community financial contribution (€ Mio)	Nr of contracts signed	Community financial contribution (€ Mio)	Nr of contracts signed	Community financial contribution (€ Mio)
INTERNATIONAL ROLE	354	1.201	3,39	138,58	0,39	98	95,13	31	1,28	7	6,06	7	4,82	211	31,29
Countries in the pre-accession phase	45	51	1,13	0,71	0,02	0	0,00	0	0,00	0	0,00	0	0,00	45	0,71
NIS and CEEC not in the pre-accession phase	26	97	3,73	29,08	1,12	10	5,73	0	0,00	0	0,00	0	0,00	16	23,34
Mediterranean partner countries	33	285	8,64	24,49	0,74	20	18,80	0	0,00	4	4,01	1	0,75	8	0,93
Developing countries	109	626	5,74	79,54	0,73	68	70,60	0	0,00	3	2,05	6	4,07	32	2,82
Emerging economies and industrialised countries	7	8	1,14	1,54	0,22	0	0,00	0	0,00	0	0,00	0	0,00	7	1,54
Fellowships	31	31	1,00	1,28	0,04	0	0,00	31	1,28	0	0,00	0	0,00	0	0,00
Coordination	103	103	1,00	1,96	0,02	0	0,00	0	0,00	0	0,00	0	0,00	103	1,96
INNOVATION AND SMEs	34	214	6,29	46,62	1,37	15	16,11	0	0,00	10	18,46	0	0,00	9	12,05
Promotion of Innovation	6	44	7,33	5,81	0,97	6	5,81	0	0,00	0	0,00	0	0,00	0	0,00
Encouraging SME participation	0	0	0,00	0,00	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00
Joint Innovation / SME Activities	28	170	6,07	40,81	1,46	9	10,30	0	0,00	10	18,46	0	0,00	9	12,05
Co-ordination and support activities	0	0	0,00	0,00	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00
HUMAN POTENTIAL	1.065	2.824	2,65	400,71	0,38	58	51,94	767	106,06	184	233,71	0	0,00	56	9,00
Research training networks	165	1.326	8,04	224,58	1,36	0	0,00	0	0,00	165	224,58	0	0,00	0	0,00
Marie Curie fellowships	767	767	1,00	106,06	0,14	0	0,00	767	106,06	0	0,00	0	0,00	0	0,00
Access to research infrastructure	11	11	1,00	3,28	0,30	11	3,28	0	0,00	0	0,00	0	0,00	0	0,00
Socio-economic research	72	569	7,90	56,28	0,78	44	46,61	0	0,00	15	7,50	0	0,00	13	2,16
Public perception	12	84	7,00	3,69	0,31	0	0,00	0	0,00	3	1,02	0	0,00	9	2,67
Support for S&T policies	8	37	4,62	3,69	0,46	3	2,05	0	0,00	1	0,60	0	0,00	4	1,04
Promoting S&T excellence	28	28	1,00	3,04	0,11	0	0,00	0	0,00	0	0,00	0	0,00	28	3,04
RTD activities of a generic nature	0	0	0,00	0,00	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00
Accompanying measures	2	2	1,00	0,08	0,04	0	0,00	0	0,00	0	0,00	0	0,00	2	0,08
TOTAL FP5 IN 2002	4.252	23.072	5,43	3.469,81	0,82	1.969	2.567,27	1.064	142,09	361	417,14	52	36,34	806	306,97

TABLE 2B: CONTRACTS SIGNED IN 2002 BY TYPE OF ACTION IN %

	ALL CONTRACTS SIGNED					SHARED COST ACTIONS		FELLOWSHIPS		SUPPORT FOR NETWORKS		CONCERTED ACTIONS		ACCOMPANYING MEASURES	
	A	B	C=B/A	D	E=D/A	F	G	H	I	J	K	L	M	N	O
	Nr of contracts signed	Nr of participations	Average nr of participations per contract	Community financial contribution (€ Mio)	Average financial contribution per contract (€ Mio)	% of contracts signed	% of Community financial contribution	% of contracts signed	% of Community financial contribution	% of contracts signed	% of Community financial contribution	% of contracts signed	% of Community financial contribution	% of contracts signed	% of Community financial contribution
QUALITY OF LIFE	729	4.123	5,66	641,87	0,88	59,26%	89,27%	23,59%	3,08%	2,47%	2,64%	4,66%	3,16%	10,01%	1,85%
Food, nutrition and health	85	460	5,41	58,72	0,69	67,06%	94,16%	30,59%	4,87%	0,00%	0,00%	1,18%	0,89%	1,18%	0,09%
Control of infectious diseases	92	519	5,64	87,92	0,96	63,04%	92,33%	14,13%	1,60%	2,17%	0,56%	4,35%	2,07%	16,30%	3,43%
The "cell factory"	81	414	5,11	92,99	1,15	67,90%	96,67%	29,63%	2,94%	0,00%	0,00%	0,00%	0,00%	2,47%	0,41%
Environment and health	51	295	5,78	51,32	1,01	56,86%	91,64%	39,22%	4,31%	1,96%	1,95%	1,96%	2,12%	0,00%	0,00%
Sustainable agriculture, fisheries and forestry	189	996	5,27	131,27	0,69	69,84%	90,04%	18,52%	3,07%	1,59%	1,60%	4,23%	4,28%	5,82%	1,01%
The ageing population and disabilities	73	467	6,40	59,82	0,82	50,68%	85,26%	24,66%	3,53%	2,74%	4,26%	10,96%	4,60%	10,96%	2,36%
RTD activities of a generic nature	135	812	6,01	134,74	1,00	40,74%	86,09%	24,44%	3,09%	2,96%	3,02%	7,41%	4,02%	24,44%	3,79%
Support for infrastructure	23	160	6,96	25,09	1,09	39,13%	57,51%	13,04%	1,16%	26,09%	26,90%	8,70%	12,16%	13,04%	2,27%
INFORMATION SOCIETY	824	5.398	6,55	958,09	1,16	56,67%	76,62%	3,03%	0,62%	8,62%	4,97%	0,00%	0,00%	31,67%	17,78%
Systems and services for the citizen	85	597	7,02	118,19	1,39	60,00%	75,09%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	40,00%	24,91%
New methods of work and electronic commerce	125	936	7,49	110,33	0,88	45,60%	59,96%	0,00%	0,00%	13,60%	8,84%	0,00%	0,00%	40,80%	31,21%
Multimedia content and tools	89	591	6,64	113,92	1,28	74,16%	90,77%	0,00%	0,00%	6,74%	3,11%	0,00%	0,00%	19,10%	6,13%
Essential technologies and infrastructure	188	1.104	5,87	272,08	1,45	61,70%	83,35%	0,00%	0,00%	1,06%	0,54%	0,00%	0,00%	37,23%	16,11%
Cross-programme themes	99	828	8,36	175,40	1,77	80,81%	88,49%	0,00%	0,00%	2,02%	1,03%	0,00%	0,00%	17,17%	10,47%
RTD activities of a generic nature	109	584	5,36	93,28	0,86	82,57%	93,98%	0,00%	0,00%	6,42%	5,85%	0,00%	0,00%	11,01%	0,16%
IST support activities	126	741	5,88	73,23	0,58	4,76%	7,10%	19,84%	8,11%	28,57%	34,62%	0,00%	0,00%	46,83%	50,18%
Research Networks	3	17	5,67	1,66	0,55	33,33%	57,83%	0,00%	0,00%	33,33%	15,06%	0,00%	0,00%	33,33%	26,51%
SUSTAINABLE GROWTH	559	5.075	9,08	702,83	1,26	72,81%	84,46%	3,94%	0,35%	8,59%	9,41%	0,18%	0,23%	14,49%	5,54%
Innovative products, processes and organisation	231	2.065	8,94	220,94	0,96	77,06%	87,20%	3,46%	0,46%	6,49%	8,95%	0,00%	0,00%	12,99%	3,38%
Sustainable mobility and intermodality	35	447	12,77	77,47	2,21	45,71%	62,91%	0,00%	0,00%	14,29%	11,00%	2,86%	2,13%	37,14%	23,96%
Land transport and marine technologies	73	732	10,03	105,04	1,44	79,45%	91,19%	2,74%	0,15%	6,85%	5,62%	0,00%	0,00%	10,96%	3,04%
New perspectives for aeronautics	49	530	10,82	156,97	3,20	75,51%	92,62%	2,04%	0,07%	10,20%	4,38%	0,00%	0,00%	12,24%	2,93%
RTD activities of a generic nature	159	1.075	6,76	124,60	0,78	74,21%	89,09%	6,92%	0,95%	3,77%	5,85%	0,00%	0,00%	15,09%	4,11%
Support for infrastructure	12	226	18,83	17,82	1,48	0,00%	0,00%	0,00%	0,00%	100,00%	100,00%	0,00%	0,00%	0,00%	0,00%

	ALL CONTRACTS SIGNED					SHARED COST ACTIONS		FELLOWSHIPS		SUPPORT FOR NETWORKS		CONCERTED ACTIONS		ACCOMPANYING MEASURES	
	A	B	C=B/A	D	E=D/A	F	G	H	I	J	K	L	M	N	O
	Nr of contracts signed	Nr of participations	Average number of participations per contract	Community financial contribution (€ Mio)	Average financial contribution per contract (€ Mio)	% of contracts signed	% of Community financial contribution	% of contracts signed	% of Community financial contribution	% of contracts signed	% of Community financial contribution	% of contracts signed	% of Community financial contribution	% of contracts signed	% of Community financial contribution
ENERGY & ENVIRONMENT	511	3.976	7,78	549,79	1,08	66,73%	86,52%	7,83%	1,01%	3,72%	4,77%	1,76%	1,72%	19,96%	5,98%
<i>ENVIRONMENT</i>	282	2.294	8,13	307,49	1,09	63,48%	85,39%	8,87%	1,19%	4,26%	5,20%	2,48%	2,68%	20,92%	5,54%
Sustainable management and quality of water	57	420	7,37	61,29	1,08	66,67%	85,28%	10,53%	2,12%	0,00%	0,00%	1,75%	6,18%	21,05%	6,41%
Global change, climate and biodiversity	80	661	8,26	82,86	1,04	53,75%	80,67%	6,25%	0,83%	5,00%	5,83%	7,50%	5,37%	27,50%	7,30%
Sustainable marine ecosystems	45	258	5,73	51,60	1,15	60,00%	93,55%	24,44%	2,50%	0,00%	0,00%	0,00%	0,00%	15,56%	3,95%
The city of tomorrow and cultural heritage	52	502	9,65	56,01	1,08	73,08%	84,88%	5,77%	0,68%	7,69%	10,23%	0,00%	0,00%	13,46%	4,20%
RTD activities of a generic nature	35	259	7,40	34,97	1,00	71,43%	90,22%	0,00%	0,00%	2,86%	2,66%	0,00%	0,00%	25,71%	7,12%
Support for research infrastructure	13	194	14,92	20,76	1,60	61,54%	77,55%	0,00%	0,00%	23,08%	21,68%	0,00%	0,00%	15,38%	0,77%
<i>ENERGY</i>	229	1.682	7,34	242,30	1,06	70,74%	87,94%	6,55%	0,78%	3,06%	4,23%	0,87%	0,50%	18,78%	6,54%
Cleaner energy systems, incl. renewables	112	780	6,96	114,61	1,02	72,32%	89,70%	4,46%	0,72%	1,79%	2,09%	1,79%	1,06%	19,64%	6,43%
Economic and efficient energy	105	726	6,91	116,83	1,11	70,48%	91,40%	9,52%	0,92%	2,86%	3,52%	0,00%	0,00%	17,14%	4,17%
RTD activities of a generic nature	10	165	16,50	7,39	0,74	70,00%	47,36%	0,00%	0,00%	20,00%	50,74%	0,00%	0,00%	10,00%	2,03%
OPET	2	11	5,50	3,47	1,73	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	100,00%	100,00%
NUCLEAR ENERGY	176	261	1,48	31,32	0,18	85,80%	88,35%	3,98%	3,19%	2,27%	6,19%	0,57%	0,51%	7,39%	1,76%
Controlled thermonuclear fusion	144	147	1,02	21,89	0,15	97,92%	97,99%	2,08%	2,01%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
Nuclear fission	10	30	3,00	0,82	0,08	0,00%	0,00%	10,00%	18,29%	10,00%	30,49%	0,00%	0,00%	80,00%	51,22%
RTD activities of a generic nature	17	60	3,53	6,29	0,37	47,06%	88,87%	17,65%	6,52%	0,00%	0,00%	5,88%	2,54%	29,41%	2,07%
Support for infrastructure	5	24	4,80	2,32	0,46	40,00%	27,59%	0,00%	0,00%	60,00%	72,84%	0,00%	0,00%	0,00%	0,00%

	ALL CONTRACTS SIGNED					SHARED COST ACTIONS		FELLOWSHIPS		SUPPORT FOR NETWORKS		CONCERTED ACTIONS		ACCOMPANYING MEASURES	
	A	B	C=B/A	D	E=D/A	F	G	H	I	J	K	L	M	N	O
	Nr of contracts signed	Nr of participations	Average nr of participations per contract	Community financial contribution (€ Mio)	Average financial contribution per contract (€ Mio)	% of contracts signed	% of Community financial contribution	% of contracts signed	% of Community financial contribution	Number of contracts signed	% of Community financial contribution	% of contracts signed	% of Community financial contribution	% of contracts signed	% of Community financial contribution
INTERNATIONAL ROLE	354	1.201	3,39	138,58	0,39	27,68%	68,65%	8,76%	0,92%	1,98%	4,37%	1,98%	3,48%	59,60%	22,58%
Countries in the pre-accession phase	45	51	1,13	0,71	0,02	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	100,00%	100,00%
NIS and CEEC not in the pre-accession phase	26	97	3,73	29,08	1,12	38,46%	19,70%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	61,54%	80,26%
Mediterranean partner countries	33	285	8,64	24,49	0,74	60,61%	76,77%	0,00%	0,00%	12,12%	16,37%	3,03%	3,06%	24,24%	3,80%
Developing countries	109	626	5,74	79,54	0,73	62,39%	88,76%	0,00%	0,00%	2,75%	2,58%	5,50%	5,12%	29,36%	3,55%
Emerging economies and industrialised countries	7	8	1,14	1,54	0,22	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	100,00%	100,00%
Fellowships	31	31	1,00	1,28	0,04	0,00%	0,00%	100,00%	100,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
Coordination	103	103	1,00	1,96	0,02	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	100,00%	100,00%
INNOVATION AND SMEs	34	214	6,29	46,62	1,37	44,12%	34,56%	0,00%	0,00%	29,41%	39,60%	0,00%	0,00%	26,47%	25,85%
Promotion of Innovation	6	44	7,33	5,81	0,97	100,00%	100,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
Encouraging SME participation	0	0	0,00	0,00	0,00	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
Joint Innovation / SME Activities	28	170	6,07	40,81	1,46	32,14%	25,24%	0,00%	0,00%	35,71%	45,23%	0,00%	0,00%	32,14%	29,53%
Co-ordination and support activities	0	0	0,00	0,00	0,00	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
HUMAN POTENTIAL	1.065	2.824	2,65	400,71	0,38	5,45%	12,96%	72,02%	26,47%	17,28%	58,32%	0,00%	0,00%	5,26%	2,25%
Research training networks	165	1.326	8,04	224,58	1,36	0,00%	0,00%	0,00%	0,00%	100,00%	100,00%	0,00%	0,00%	0,00%	0,00%
Marie Curie fellowships	767	767	1,00	106,06	0,14	0,00%	0,00%	100,00%	100,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
Access to research infrastructure	11	11	1,00	3,28	0,30	100,00%	100,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
Socio-economic research	72	569	7,90	56,28	0,78	61,11%	82,82%	0,00%	0,00%	20,83%	13,33%	0,00%	0,00%	18,06%	3,84%
Public perception	12	84	7,00	3,69	0,31	0,00%	0,00%	0,00%	0,00%	25,00%	27,64%	0,00%	0,00%	75,00%	72,36%
Support for S&T policies	8	37	4,62	3,69	0,46	37,50%	55,56%	0,00%	0,00%	12,50%	16,26%	0,00%	0,00%	50,00%	28,18%
Promoting S&T excellence	28	28	1,00	3,04	0,11	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	100,00%	100,00%
RTD activities of a generic nature	0	0	0,00	0,00	0,00	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
Accompanying measures	2	2	1,00	0,08	0,04	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	100,00%	100,00%
TOTAL FP5 IN 2002	4.252	23.072	5,43	3.469,81	0,82	46,31%	73,99%	25,02%	4,10%	8,49%	12,02%	1,22%	1,05%	18,96%	8,85%

TABLE 3A: CONTRACTS SIGNED IN 2002 BY TYPE OF BENEFICIARY

	TYPE OF BENEFICIARY										of which SMEs	
	Higher education		Research centres (including JRC)		Enterprise sector		Other ⁴⁰		TOTAL			
	Contribution (€ Mio)	Participations	Contribution (€ Mio)	Participations	Contribution (€ Mio)	Participations	Contribution (€ Mio)	Participations	Contribution (€ Mio)	Participations	Contribution (€ Mio)	Participations
QUALITY OF LIFE	308,87	1.681	252,63	1.420	42,32	773	20,33	249	624,15	4.123	41,36	608
Food, nutrition and health	25,59	140	26,13	142	4,82	168	1,21	10	57,75	460	6,98	139
Control of infectious diseases	41,60	217	36,64	212	5,96	66	2,41	24	86,61	519	5,07	51
The "cell factory"	49,12	189	33,62	153	7,34	66	0,86	6	90,95	414	5,22	50
Environment and health	28,48	138	18,30	117	1,50	28	2,24	12	50,52	295	1,97	24
Sustainable agriculture, fisheries and forestry	50,78	267	65,42	385	9,73	280	3,20	64	129,13	996	10,77	226
The ageing population and disabilities	35,15	239	14,60	112	5,73	77	2,86	39	58,33	467	4,91	59
RTD activities of a generic nature	68,25	419	46,71	240	5,27	73	5,42	80	125,65	812	4,68	50
Support for infrastructure	9,90	72	11,21	59	1,96	15	2,14	14	25,21	160	1,77	9
INFORMATION SOCIETY	269,87	1.511	185,79	966	471,22	2.624	31,22	297	958,09	5.398	194,89	1.096
Systems and services for the citizen	18,40	81	19,09	79	74,64	386	6,07	51	118,19	597	33,15	152
New methods of work and electronic commerce	19,22	162	21,02	152	65,37	573	4,73	49	110,33	936	31,59	246
Multimedia content and tools	43,02	201	19,23	93	48,40	264	3,27	33	113,92	591	26,51	131
Essential technologies and infrastructure	66,59	298	56,11	216	147,62	576	1,76	14	272,08	1.104	42,50	185
Cross-programme themes	46,78	191	32,19	137	87,50	425	8,93	75	175,40	828	38,93	209
RTD activities of a generic nature	59,62	370	22,25	141	9,81	62	1,60	11	93,28	584	1,13	9
IST support activities	16,07	205	15,64	146	36,67	326	4,86	64	73,23	741	20,81	161
Research Networks	0,19	3	0,26	2	1,21	12	0,00	0	1,66	17	0,26	3
SUSTAINABLE GROWTH	150,27	916	208,53	1.323	324,35	2.640	20,21	196	703,36	5.075	92,17	1.197
Innovative products, processes and organisation	51,27	312	73,80	489	92,24	1.221	1,80	43	219,11	2.065	45,91	673
Sustainable mobility and intermodality	11,89	82	18,38	113	32,68	189	14,52	63	77,47	447	0,00	0
Land transport and marine technologies	25,56	126	27,31	173	51,93	421	0,58	12	105,38	732	15,99	137
New perspectives for aeronautics	17,58	107	33,93	138	108,02	280	0,40	5	159,92	530	7,65	53
RTD activities of a generic nature	38,82	239	46,92	316	35,73	468	2,26	52	123,73	1.075	19,84	297
Support for infrastructure	5,15	50	8,19	94	3,75	61	0,65	21	17,74	226	2,78	37

⁴⁰ "Other" covers all participations which could not be allocated to any of the first three categories.

	TYPE OF BENEFICIARY										of which SMEs	
	Higher education		Research centres (including JRC)		Enterprise sector		Other		TOTAL			
	Contribution (€ Mio)	Participations	Contribution (€ Mio)	Participations	Contribution (€ Mio)	Participations	Contribution (€ Mio)	Participations	Contribution (€ Mio)	Participations	Contribution (€ Mio)	Participations
ENERGY & ENVIRONMENT	190,59	1.166	192,71	1.321	124,15	1.198	26,50	291	533,96	3.976	55,02	632
<i>ENVIRONMENT</i>	<i>132,97</i>	<i>819</i>	<i>123,65</i>	<i>862</i>	<i>28,99</i>	<i>423</i>	<i>14,11</i>	<i>190</i>	<i>299,73</i>	<i>2.294</i>	<i>33,96</i>	<i>397</i>
Sustainable management and quality of water	30,69	152	22,31	127	5,85	126	0,99	15	59,84	420	5,08	105
Global change, climate and biodiversity	37,72	282	35,80	306	3,45	47	2,15	26	79,11	661	8,61	78
Sustainable marine ecosystems	21,43	102	24,66	119	2,84	27	1,40	10	50,33	258	5,51	34
The city of tomorrow and cultural heritage	22,83	135	18,12	118	8,64	143	6,16	106	55,74	502	7,66	104
RTD activities of a generic nature	12,34	87	13,33	88	6,81	65	1,84	19	34,32	259	5,23	53
Support for infrastructure	7,96	61	9,45	104	1,40	15	1,56	14	20,38	194	1,88	23
<i>ENERGY</i>	<i>57,62</i>	<i>347</i>	<i>69,05</i>	<i>459</i>	<i>95,16</i>	<i>775</i>	<i>12,40</i>	<i>101</i>	<i>234,23</i>	<i>1.682</i>	<i>21,06</i>	<i>235</i>
Cleaner energy systems, incl. renewables	29,13	163	34,10	202	43,18	387	1,82	28	108,23	780	8,29	114
Economic and efficient energy	26,13	145	31,78	189	49,27	330	7,96	62	115,14	726	11,72	101
RTD activities of a generic nature	2,02	38	3,18	68	2,15	57	0,04	2	7,39	165	1,05	20
OPET	0,34	1	0,00	0	0,55	1	2,58	9	3,47	11	0,00	0
NUCLEAR ENERGY	4,54	51	15,85	147	9,22	33	1,93	30	31,54	261	1,22	10
Controlled thermonuclear fusion	1,91	25	9,89	77	8,68	26	1,63	19	22,11	147	0,00	0
Nuclear fission	0,00	0	0,57	20	0,15	3	0,09	7	0,82	30	0,13	4
RTD activities of a generic nature	2,42	23	3,56	34	0,22	1	0,10	2	6,29	60	0,37	4
Support for infrastructure	0,20	3	1,83	16	0,17	3	0,12	2	2,32	24	0,71	2
INTERNATIONAL ROLE	48,84	510	48,54	458	12,39	145	28,22	88	137,98	1.201	12,35	131
Countries in the pre-accession phase	0,26	19	0,31	21	0,06	5	0,08	6	0,71	51	0,10	10
NIS and CEEC not in the pre-accession phase	2,69	35	2,04	25	0,99	25	23,33	12	29,05	97	0,96	19
Mediterranean partner countries	10,01	119	8,51	88	4,32	46	1,71	32	24,54	285	4,05	32
Developing countries	33,95	264	36,39	270	5,78	61	2,80	31	78,91	626	5,89	59
Emerging economies and industrialised countries	0,00	1	0,53	5	1,01	2	0,00	0	1,54	8	1,07	3
Fellowships	0,78	18	0,22	10	0,00	0	0,28	3	1,28	31	0,00	0
Coordination	1,15	54	0,54	39	0,22	6	0,04	4	1,96	103	0,28	8

	TYPE OF BENEFICIARY										of which SMEs	
	Higher education		Research centres (including JRC)		Enterprise sector		Other		TOTAL			
	Contribution (€ Mio)	Participations	Contribution (€ Mio)	Participations	Contribution (€ Mio)	Participations	Contribution (€ Mio)	Participations	Contribution (€ Mio)	Participations	Contribution (€ Mio)	Participations
INNOVATION AND SMEs	2,54	12	5,62	30	12,73	71	26,06	101	46,95	214	6,12	38
Promotion of Innovation	0,16	1	0,60	4	1,76	9	3,30	30	5,81	44	0,88	7
Encouraging SME participation	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0
Joint Innovation / SME Activities	2,38	11	5,02	26	10,97	62	22,76	71	41,14	170	5,24	31
Co-ordination and support activities	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0
HUMAN POTENTIAL	252,91	1.752	119,91	853	19,61	161	3,62	58	396,05	2.824	20,10	163
Research training networks	150,80	889	63,40	385	6,16	49	0,32	3	220,66	1.326	8,48	51
Marie Curie fellowships	62,06	471	33,52	239	8,26	43	2,22	14	106,06	767	3,11	26
Access to research infrastructure	0,44	2	2,63	8	0,21	1	0,00	0	3,28	11	0,21	1
Socio-economic research	34,65	346	18,48	192	2,23	20	0,19	11	55,55	569	6,40	59
Public perception	0,94	22	1,03	19	1,53	37	0,17	6	3,68	84	0,85	14
Support for S&T policies	1,98	17	0,85	10	0,84	9	0,02	1	3,69	37	0,98	11
Promoting S&T excellence	2,04	5	0,00	0	0,32	1	0,67	22	3,04	28	0,00	0
RTD activities of a generic nature	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0
Accompanying measures	0,00	0	0,00	0	0,06	1	0,03	1	0,08	2	0,06	1
TOTAL	1.228,43	7.599	1.029,58	6.518	1.015,99	7.645	158,09	1.310	3.432,08	23.072	423,23	3.875

TABLE 3B: CONTRACTS SIGNED IN 2002 BY TYPE OF BENEFICIARY (IN %)

	TYPE OF BENEFICIARY										of which SMEs	
	Higher education		Research centres (including JRC)		Enterprise sector		Other ⁴¹		TOTAL			
	Contribution	Participations	Contribution	Participations	Contribution	Participations	Contribution	Participations	Contribution	Participations	Contribution	Participations
QUALITY OF LIFE	49,49%	40,77%	40,48%	34,44%	6,78%	18,75%	3,26%	6,04%	100,00%	100,00%	6,63%	14,75%
Food, nutrition and health	44,31%	30,43%	45,25%	30,87%	8,35%	36,52%	2,10%	2,17%	100,00%	100,00%	12,09%	30,22%
Control of infectious diseases	48,03%	41,81%	42,30%	40,85%	6,88%	12,72%	2,78%	4,62%	100,00%	100,00%	5,85%	9,83%
The "cell factory"	54,01%	45,65%	36,97%	36,96%	8,07%	15,94%	0,95%	1,45%	100,00%	100,00%	5,74%	12,08%
Environment and health	56,37%	46,78%	36,22%	39,66%	2,97%	9,49%	4,43%	4,07%	100,00%	100,00%	3,90%	8,14%
Sustainable agriculture, fisheries and forestry	39,32%	26,81%	50,66%	38,65%	7,54%	28,11%	2,48%	6,43%	100,00%	100,00%	8,34%	22,69%
The ageing population and disabilities	60,26%	51,18%	25,03%	23,98%	9,82%	16,49%	4,90%	8,35%	100,00%	100,00%	8,42%	12,63%
RTD activities of a generic nature	54,32%	51,60%	37,17%	29,56%	4,19%	8,99%	4,31%	9,85%	100,00%	100,00%	3,72%	6,16%
Support for infrastructure	39,27%	45,00%	44,47%	36,88%	7,77%	9,38%	8,49%	8,75%	100,00%	100,00%	7,02%	5,62%
INFORMATION SOCIETY	28,17%	27,99%	19,39%	17,90%	49,18%	48,61%	3,26%	5,50%	100,00%	100,00%	20,34%	20,30%
Systems and services for the citizen	15,57%	13,57%	16,15%	13,23%	63,15%	64,66%	5,14%	8,54%	100,00%	100,00%	28,05%	25,46%
New methods of work and electronic commerce	17,42%	17,31%	19,05%	16,24%	59,25%	61,22%	4,29%	5,24%	100,00%	100,00%	28,63%	26,28%
Multimedia content and tools	37,76%	34,01%	16,88%	15,74%	42,49%	44,67%	2,87%	5,58%	100,00%	100,00%	23,27%	22,17%
Essential technologies and infrastructure	24,47%	26,99%	20,62%	19,57%	54,26%	52,17%	0,65%	1,27%	100,00%	100,00%	15,62%	16,76%
Cross-programme themes	26,67%	23,07%	18,35%	16,55%	49,89%	51,33%	5,09%	9,06%	100,00%	100,00%	22,19%	25,24%
RTD activities of a generic nature	63,92%	63,36%	23,85%	24,14%	10,52%	10,62%	1,72%	1,88%	100,00%	100,00%	1,21%	1,54%
IST support activities	21,94%	27,67%	21,36%	19,70%	50,08%	43,99%	6,64%	8,64%	100,00%	100,00%	28,42%	21,73%
Research Networks	11,45%	17,65%	15,66%	11,76%	72,89%	70,59%	0,00%	0,00%	100,00%	100,00%	15,66%	17,65%
SUSTAINABLE GROWTH	21,36%	18,05%	29,65%	26,07%	46,11%	52,02%	2,87%	3,86%	100,00%	100,00%	13,10%	23,59%
Innovative products, processes and organisation	23,40%	15,11%	33,68%	23,68%	42,10%	59,13%	0,82%	2,08%	100,00%	100,00%	20,95%	32,59%
Sustainable mobility and intermodality	15,35%	18,34%	23,73%	25,28%	42,18%	42,28%	18,74%	14,09%	100,00%	100,00%	0,00%	0,00%
Land transport and marine technologies	24,26%	17,21%	25,92%	23,63%	49,28%	57,51%	0,55%	1,64%	100,00%	100,00%	15,17%	18,72%
New perspectives for aeronautics	10,99%	20,19%	21,22%	26,04%	67,55%	52,83%	0,25%	0,94%	100,00%	100,00%	4,78%	10,00%
RTD activities of a generic nature	31,37%	22,23%	37,92%	29,40%	28,88%	43,53%	1,83%	4,84%	100,00%	100,00%	16,03%	27,63%
Support for infrastructure	29,03%	22,12%	46,17%	41,59%	21,14%	26,99%	3,66%	9,29%	100,00%	100,00%	15,67%	16,37%

⁴¹ "Other" covers all participations which could not be allocated to any of the first three categories.

	TYPE OF BENEFICIARY										of which SMEs	
	Higher education		Research centres (including JRC)		Enterprise sector		Other		TOTAL			
	Contribution	Participations	Contribution	Participations	Contribution	Participations	Contribution	Participations	Contribution	Participations	Contribution	Participations
ENERGY & ENVIRONMENT	35,69%	29,33%	36,09%	33,22%	23,25%	30,13%	4,96%	7,32%	100,00%	100,00%	10,30%	15,90%
ENVIRONMENT	<i>44,36%</i>	<i>35,70%</i>	<i>41,25%</i>	<i>37,58%</i>	<i>9,67%</i>	<i>18,44%</i>	<i>4,71%</i>	<i>8,28%</i>	<i>100,00%</i>	<i>100,00%</i>	<i>11,33%</i>	<i>17,31%</i>
Sustainable management and quality of water	51,29%	36,19%	37,28%	30,24%	9,78%	30,00%	1,65%	3,57%	100,00%	100,00%	8,49%	25,00%
Global change, climate and biodiversity	47,68%	42,66%	45,25%	46,29%	4,36%	7,11%	2,72%	3,93%	100,00%	100,00%	10,88%	11,80%
Sustainable marine ecosystems	42,58%	39,53%	49,00%	46,12%	5,64%	10,47%	2,78%	3,88%	100,00%	100,00%	10,95%	13,18%
The city of tomorrow and cultural heritage	40,96%	26,89%	32,51%	23,51%	15,50%	28,49%	11,05%	21,12%	100,00%	100,00%	13,74%	20,72%
RTD activities of a generic nature	35,96%	33,59%	38,84%	33,98%	19,84%	25,10%	5,36%	7,34%	100,00%	100,00%	15,24%	20,46%
Support for infrastructure	39,06%	31,44%	46,37%	53,61%	6,87%	7,73%	7,65%	7,22%	100,00%	100,00%	9,22%	11,86%
ENERGY	<i>24,60%</i>	<i>20,63%</i>	<i>29,48%</i>	<i>27,29%</i>	<i>40,63%</i>	<i>46,08%</i>	<i>5,29%</i>	<i>6,00%</i>	<i>100,00%</i>	<i>100,00%</i>	<i>8,99%</i>	<i>13,97%</i>
Cleaner energy systems, incl. renewables	26,91%	20,90%	31,51%	25,90%	39,90%	49,62%	1,68%	3,59%	100,00%	100,00%	7,66%	14,62%
Economic and efficient energy	22,69%	19,97%	27,60%	26,03%	42,79%	45,45%	6,91%	8,54%	100,00%	100,00%	10,18%	13,91%
RTD activities of a generic nature	27,33%	23,03%	43,03%	41,21%	29,09%	34,55%	0,54%	1,21%	100,00%	100,00%	14,21%	12,12%
OPET	9,80%	9,09%	0,00%	0,00%	15,85%	9,09%	74,35%	81,82%	100,00%	100,00%	0,00%	0,00%
NUCLEAR ENERGY	14,39%	19,54%	50,25%	56,32%	29,23%	12,64%	6,12%	11,49%	100,00%	100,00%	3,87%	3,83%
Controlled thermonuclear fusion	8,64%	17,01%	44,73%	52,38%	39,26%	17,69%	7,37%	12,93%	100,00%	100,00%	0,00%	0,00%
Nuclear fission	0,00%	0,00%	69,51%	66,67%	18,29%	10,00%	10,98%	23,33%	100,00%	100,00%	15,85%	13,33%
RTD activities of a generic nature	38,47%	38,33%	56,60%	56,67%	3,50%	1,67%	1,59%	3,33%	100,00%	100,00%	5,88%	6,67%
Support for infrastructure	8,62%	12,50%	78,88%	66,67%	7,33%	12,50%	5,17%	8,33%	100,00%	100,00%	30,60%	8,33%
INTERNATIONAL ROLE	35,40%	42,46%	35,18%	38,13%	8,98%	12,07%	20,45%	7,33%	100,00%	100,00%	8,95%	10,91%
Countries in the pre-accession phase	36,62%	37,25%	43,66%	41,18%	8,45%	9,80%	11,27%	11,76%	100,00%	100,00%	14,08%	19,61%
NIS and CEEC not in the pre-accession phase	9,26%	36,08%	7,02%	25,77%	3,41%	25,77%	80,31%	12,37%	100,00%	100,00%	3,30%	19,59%
Mediterranean partner countries	40,79%	41,75%	34,68%	30,88%	17,60%	16,14%	6,97%	11,23%	100,00%	100,00%	16,50%	11,23%
Developing countries	43,02%	42,17%	46,12%	43,13%	7,32%	9,74%	3,55%	4,95%	100,00%	100,00%	7,46%	9,42%
Emerging economies and industrialised countries	0,00%	12,50%	34,42%	62,50%	65,58%	25,00%	0,00%	0,00%	100,00%	100,00%	69,48%	37,50%
Fellowships	60,94%	58,06%	17,19%	32,26%	0,00%	0,00%	21,88%	9,68%	100,00%	100,00%	0,00%	0,00%
Coordination	58,67%	52,43%	27,55%	37,86%	11,22%	5,83%	2,04%	3,88%	100,00%	100,00%	14,29%	7,77%

	TYPE OF BENEFICIARY										of which SMEs	
	Higher education		Research centres (including JRC)		Enterprise sector		Other		TOTAL			
	Contribution	Participations	Contribution	Participations	Contribution	Participations	Contribution	Participations	Contribution	Participations	Contribution	Participations
INNOVATION AND SMEs	5,41%	5,61%	11,97%	14,02%	27,11%	33,18%	55,51%	47,20%	100,00%	100,00%	13,04%	17,76%
Promotion of Innovation	2,75%	2,27%	10,33%	9,09%	30,29%	20,45%	56,80%	68,18%	100,00%	100,00%	15,15%	15,91%
Encouraging SME participation	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
Joint Innovation / SME Activities	5,79%	6,47%	12,20%	15,29%	26,67%	36,47%	55,32%	41,76%	100,00%	100,00%	12,74%	18,24%
Co-ordination and support activities	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
HUMAN POTENTIAL	63,86%	62,04%	30,28%	30,21%	4,95%	5,70%	0,91%	2,05%	100,00%	100,00%	5,08%	5,77%
Research training networks	68,34%	67,04%	28,73%	29,03%	2,79%	3,70%	0,15%	0,23%	100,00%	100,00%	3,84%	3,85%
Marie Curie fellowships	58,51%	61,41%	31,60%	31,16%	7,79%	5,61%	2,09%	1,83%	100,00%	100,00%	2,93%	3,39%
Access to research infrastructure	13,41%	18,18%	80,18%	72,73%	6,40%	9,09%	0,00%	0,00%	100,00%	100,00%	6,40%	9,09%
Socio-economic research	62,38%	60,81%	33,27%	33,74%	4,01%	3,51%	0,34%	1,93%	100,00%	100,00%	11,52%	10,37%
Public perception	25,54%	26,19%	27,99%	22,62%	41,58%	44,05%	4,62%	7,14%	100,00%	100,00%	23,10%	16,67%
Support for S&T policies	53,66%	45,95%	23,04%	27,03%	22,76%	24,32%	0,54%	2,70%	100,00%	100,00%	26,56%	29,73%
Promoting S&T excellence	67,11%	17,86%	0,00%	0,00%	10,53%	3,57%	22,04%	78,57%	100,00%	100,00%	0,00%	0,00%
RTD activities of a generic nature	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
Accompanying measures	0,00%	0,00%	0,00%	0,00%	75,00%	50,00%	37,50%	50,00%	100,00%	100,00%	75,00%	50,00%
TOTAL	35,79%	32,94%	30,00%	28,25%	29,60%	33,14%	4,61%	5,68%	100,00%	100,00%	12,33%	16,80%

TABLE 4 : PROPOSALS RECEIVED IN 2002 BY COUNTRY - PARTICIPATIONS BY SPECIFIC PROGRAMME

	EUROPEAN UNION															
	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SV	UK	Total.
Quality of life	300	332	963	328	812	791	177	911	11	612	202	244	211	321	1.135	7.350
Information society	537	219	1.846	942	1.205	1.357	199	1.660	31	563	408	287	338	418	1.631	11.641
Sustainable growth	206	100	781	203	636	415	54	592	8	347	109	225	143	136	636	4.591
Energy and environment	144	108	457	171	310	253	27	385	4	197	160	129	99	96	351	2.891
<i>Environment</i>	82	68	277	87	146	180	22	241	2	128	83	75	67	57	221	1.736
<i>Energy</i>	62	40	180	84	164	73	5	144	2	69	77	54	32	39	130	1.155
Nuclear energy	22	5	48	3	16	49	5	16	0	23	6	1	16	17	47	274
<i>Fission</i>	6	0	14	1	5	16	2	6	0	5	2	1	7	6	13	84
<i>Fusion</i>	0	0	1	0	0	1	0	0	0	1	1	0	0	0	0	4
International role	31	11	61	63	96	105	0	117	0	20	24	31	8	2	61	630
Innovation and SMEs	42	19	171	78	149	98	24	124	9	40	39	18	21	49	90	971
Human potential	259	121	545	196	362	599	72	491	5	271	234	120	129	176	864	4.444
TOTAL	1.541	915	4.872	1.984	3.586	3.667	558	4.296	68	2.073	1.182	1.055	965	1.215	4.815	32.792

	CANDIDATE AND ASSOCIATED COUNTRIES																		
	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI	TR	IS	LI	NO	CH	IL	Total.
Quality of life	78	21	159	60	188	49	49	11	381	74	79	87	4	38	1	152	148	122	1.701
Information society	174	92	179	64	220	64	59	9	298	160	78	141	17	21	5	168	316	208	2.273
Sustainable growth	29	19	127	21	63	24	28	4	232	84	50	61	0	13	1	54	49	42	901
Energy and environment	71	23	106	51	80	33	51	21	229	70	78	68	9	3	0	90	39	20	1.042
<i>Environment</i>	46	12	79	35	45	13	24	21	158	47	49	46	8	2	0	68	28	5	686
<i>Energy</i>	25	11	27	16	35	20	27	0	71	23	29	22	1	1	0	22	11	15	356
Nuclear energy	12	0	22	2	13	1	0	0	1	3	15	5	0	0	0	3	5	0	82
<i>Fission</i>	6	0	18	1	7	0	0	0	1	0	10	3	0	0	0	3	3	0	52
<i>Fusion</i>	1	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	4
International role	7	18	10	3	5	3	1	19	27	5	1	7	46	0	0	4	9	13	178
Innovation and SMEs	8	8	15	9	17	10	7	2	22	15	1	9	2	10	1	13	17	6	172
Human potential	81	11	87	62	135	23	35	9	147	61	34	64	10	9	0	77	64	40	949
TOTAL	460	192	705	272	721	207	230	75	1.337	472	336	442	88	94	8	561	647	451	7.298

TABLE 5A : CONTRACTS SIGNED IN 2002 BY COUNTRY - PARTICIPATIONS BY SPECIFIC PROGRAMME

	EUROPEAN UNION															Total
	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SV	UK	
Quality of life	157	132	480	127	315	504	59	379	3	291	99	98	119	191	593	3.547
Information society	246	71	817	330	478	689	81	648	17	231	125	108	118	113	607	4.679
Sustainable growth	240	120	836	175	411	604	54	495	7	319	128	96	125	200	616	4.426
Energy and environment	129	162	589	154	291	437	32	285	4	277	111	132	97	128	496	3.324
<i>Environment</i>	78	81	288	90	155	269	24	166	2	155	48	87	70	74	300	1.887
<i>Energy</i>	51	81	301	64	136	168	8	119	2	122	63	45	27	54	196	1.437
Nuclear energy	16	4	67	5	11	32	0	19	0	14	5	4	10	12	23	222
<i>Fission</i>	1	0	7	0	2	6	0	0	0	1	1	0	2	2	4	26
<i>Fusion</i>	8	3	46	3	4	10	0	15	0	6	4	4	5	6	8	122
International role	37	16	68	22	59	85	7	48	2	42	30	21	7	18	85	547
Innovation and SMEs	18	3	31	5	21	24	7	17	4	8	6	3	1	8	24	180
Human potential	110	79	392	85	152	397	31	244	2	211	84	36	43	90	521	2.477
TOTAL	953	587	3.280	903	1.738	2.772	271	2.135	39	1.393	588	498	520	760	2.965	19.402

	CANDIDATE AND ASSOCIATED COUNTRIES																		
	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI	TR	IS	LI	NO	CH	IL	Total
Quality of life	7	4	35	17	43	4	12	2	62	8	13	25	6	12	0	113	112	61	536
Information society	32	28	46	17	62	8	8	0	65	22	15	20	9	4	4	69	138	73	620
Sustainable growth	21	4	70	6	38	10	11	0	129	35	18	34	3	9	0	109	79	37	613
Energy and environment	17	9	46	12	48	13	18	2	111	17	23	28	5	12	0	151	71	18	601
<i>Environment</i>	10	7	26	8	29	9	12	2	73	7	15	22	4	10	0	93	35	11	373
<i>Energy</i>	7	2	20	4	19	4	6	0	38	10	8	6	1	2	0	58	36	7	228
Nuclear energy	0	0	8	0	3	2	0	0	0	2	1	1	0	0	0	0	14	0	31
<i>Fission</i>	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
<i>Fusion</i>	0	0	5	0	3	2	0	0	0	2	0	1	0	0	0	0	12	0	25
International role	7	3	9	0	11	2	1	11	24	1	2	4	16	1	0	9	14	4	119
Innovation and SMEs	0	0	7	3	2	5	0	2	4	1	2	1	0	1	0	0	0	6	34
Human potential	18	4	21	11	37	2	3	3	52	5	9	20	2	4	0	46	60	25	322
TOTAL	102	52	242	66	244	46	53	20	447	91	83	133	41	43	4	497	488	224	2.876

TABLE 5B: CONTRACTS SIGNED IN 2002 BY COUNTRY - PARTICIPATIONS BY TYPE OF ACTION AND BY TYPE OF BENEFICIARY

Number of participations by type of action	EUROPEAN UNION															
	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SV	UK	Total
Shared cost actions	504	365	2.084	596	1.162	1.678	151	1.375	18	826	352	334	328	477	1.681	11.931
<i>R&D projects</i>	394	279	1.657	476	761	1.417	114	1.049	7	654	250	201	259	410	1.315	9.243
<i>Demonstration projects</i>	8	9	23	14	29	23	3	13	0	22	15	3	4	5	20	191
<i>Combined projects</i>	19	6	54	19	37	27	3	29	2	23	21	12	15	6	35	308
<i>Support for infrastructure</i>	1	2	14	4	11	2	0	8	0	3	3	4	0	3	10	65
<i>Cooperative research</i>	67	57	280	72	283	188	24	240	5	102	51	97	43	42	258	1.809
<i>Exploratory awards</i>	15	12	56	11	41	21	7	36	4	22	12	17	7	11	43	315
Fellowships	48	25	145	19	63	151	7	74	0	100	26	8	14	28	294	1.002
Support for networks	233	124	681	163	292	606	68	408	8	272	118	92	110	165	641	3.981
Concerted actions	25	31	61	18	41	51	8	50	2	58	16	17	16	31	95	520
Accompanying measures	143	42	309	107	180	286	37	228	11	137	76	47	52	59	254	1.968
Total	953	587	3.280	903	1.738	2.772	271	2.135	39	1.393	588	498	520	760	2.965	19.402

Number of participations by type of beneficiary																
Higher education	319	181	927	265	474	599	135	626	1	451	189	145	165	369	1.494	6.340
Research centres (incl. JRC)	216	198	953	244	478	1.083	18	609	2	440	152	134	178	133	477	5.315
Enterprise sector	355	184	1.295	342	670	959	92	774	32	453	220	185	152	192	856	6.761
Other ⁴²	63	24	105	52	116	131	26	126	4	49	27	34	25	66	138	986
Total	953	587	3.280	903	1.738	2.772	271	2.135	39	1.393	588	498	520	760	2.965	19.402
of which SMEs	182	83	568	232	388	360	55	409	19	185	102	134	57	93	393	3.260

⁴² "Other" covers all participations which could not be allocated to any of the first three categories.

Number of participations by type of action	CANDIDATE AND ASSOCIATED COUNTRIES																		
	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI	TR	IS	LI	NO	CH	IL	Tot.
Shared cost actions	54	32	141	34	142	25	19	4	213	55	52	80	20	31	3	322	301	158	1.686
<i>R&D projects</i>	38	28	100	29	78	15	12	4	170	39	38	60	19	24	3	238	284	125	1.304
<i>Demonstration projects</i>	3	0	1	1	2	0	0	0	2	0	0	3	1	0	0	7	7	5	32
<i>Combined projects</i>	8	1	11	0	31	1	0	0	9	5	5	3	0	0	0	15	4	1	94
<i>Support for infrastructure</i>	0	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3	0	0	7
<i>Cooperative research</i>	4	3	20	1	27	6	6	0	27	7	8	12	0	7	0	55	6	21	210
<i>Exploratory awards</i>	1	0	7	3	4	3	1	0	4	4	0	2	0	0	0	4	0	6	39
Fellowships	0	0	4	0	1	0	1	0	6	0	0	2	0	0	0	20	7	4	45
Support for networks	24	13	55	12	52	8	20	13	84	14	16	29	15	7	0	90	113	28	593
Concerted actions	1	0	9	3	7	2	2	0	6	2	2	3	0	2	0	23	20	7	89
Accompanying measures	23	7	33	17	42	11	11	3	138	20	13	19	6	3	1	42	47	27	463
Total	102	52	242	66	244	46	53	20	447	91	83	133	41	43	4	497	488	224	2.876

Number of participations by type of beneficiary																			
Higher education	26	18	61	30	66	15	15	6	168	24	21	39	23	10	0	125	238	71	956
Research centres (incl. JRC)	38	11	80	16	76	6	24	2	178	20	32	51	8	20	0	202	110	48	922
Enterprise sector	32	18	82	15	81	17	9	6	71	37	23	27	8	9	4	135	118	90	782
Other	6	5	19	5	21	8	5	6	30	10	7	16	2	4	0	35	22	15	216
Total	102	52	242	66	244	46	53	20	447	91	83	133	41	43	4	497	488	224	2.876
of which SMEs	29	16	48	10	47	8	14	4	74	26	20	30	5	18	0	85	48	54	536

TABLE 6: COOPERATION LINKS BETWEEN COUNTRIES IN THE CONTRACTS SIGNED IN 2002

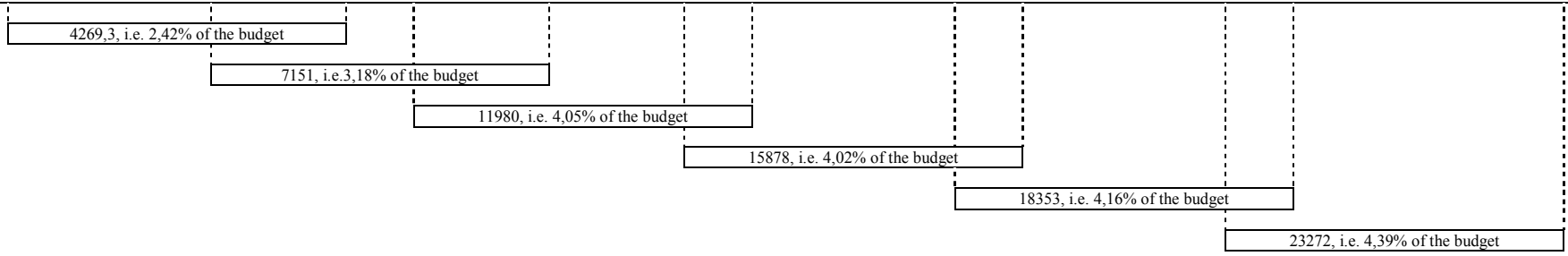
	European Union															Tot	Candidate and associated countries															Total					
	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SV	UK		BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI	TR	IS	LI			NO	CH	IL	
European Union	BE	397	249	1.486	400	631	1.356	120	921	24	759	246	197	239	351	1.223	8.599	57	25	97	23	107	13	28	9	176	40	41	53	9	23	1	227	213	52	1.194	BE
	DK	249	244	910	266	464	620	99	529	4	446	135	157	245	310	957	5.635	28	13	96	25	41	19	35	6	156	15	29	42	7	46	0	249	110	40	957	DK
	DE	1.486	910	3.326	1.285	2.424	4.388	397	3.293	64	2.192	1.173	716	882	1.254	4.233	28.023	145	76	402	68	405	50	136	21	715	116	170	181	73	79	10	695	961	298	4.601	DE
	EL	400	266	1.285	531	988	913	153	1.028	35	441	241	301	314	285	1.193	8.374	86	99	141	33	131	14	39	9	186	67	31	66	33	32	2	268	199	93	1.529	EL
	ES	631	464	2.424	988	1.340	2.112	237	1.934	26	832	419	675	459	592	2.082	15.215	97	37	207	47	147	29	62	21	275	62	57	100	41	43	0	368	342	168	2.103	ES
	FR	1.356	620	4.388	913	2.112	2.887	245	2.907	65	1.730	509	707	589	964	3.671	23.663	88	56	222	44	203	36	52	14	391	121	70	130	27	75	7	707	693	259	3.195	FR
	IE	120	99	397	153	237	245	66	230	14	157	80	85	101	122	441	2.547	20	10	41	14	45	6	16	5	70	8	9	28	5	11	0	66	52	18	424	IE
	IT	921	529	3.293	1.028	1.934	2.907	230	1.673	46	1.116	545	596	485	726	2.657	18.686	92	56	233	35	207	23	69	32	366	101	92	136	75	39	3	429	512	249	2.749	IT
	LU	24	4	64	35	26	65	14	46	3	19	10	5	7	13	32	367	2	0	1	0	25	0	1	0	3	8	1	0	2	0	0	1	12	0	56	LU
	NL	759	446	2.192	441	832	1.730	157	1.116	19	711	358	299	369	649	1.866	11.944	56	28	141	32	143	20	42	10	269	59	86	68	6	27	2	440	307	116	1.852	NL
	AT	246	135	1.173	241	419	509	80	545	10	358	246	98	164	191	614	5.029	77	16	131	16	158	10	14	8	98	44	87	76	11	13	0	95	157	51	1.062	AT
	PT	197	157	716	301	675	707	85	596	5	299	98	209	112	151	684	4.992	27	16	55	14	49	10	15	11	87	25	12	33	15	25	0	171	94	26	685	PT
	FI	239	245	882	314	459	589	101	485	7	369	164	112	287	398	858	5.509	23	27	138	59	73	21	35	2	153	26	33	47	8	23	1	238	138	29	1.074	FI
	SV	351	310	1.254	285	592	964	122	726	13	649	191	151	398	288	1.165	7.459	29	19	113	36	83	17	47	2	192	37	26	57	10	32	0	273	197	72	1.242	SV
UK	1.223	957	4.233	1.193	2.082	3.671	441	2.657	32	1.866	614	684	858	1.165	2.241	23.917	126	66	364	58	220	41	131	8	476	127	109	182	20	75	0	918	614	256	3.791	UK	
Tot	8.599	5.635	28.023	8.374	15.215	23.663	2.547	18.686	367	11.944	5.029	4.992	5.509	7.459	23.917	92.204	953	544	2.382	504	2.037	309	722	158	3.613	856	853	1.199	342	543	26	5.145	4.601	1.727	26.514	Tot.	
Candidate and associated countries	BG	57	28	145	86	97	88	20	92	2	56	77	27	23	29	126	953	23	8	30	10	37	5	8	2	27	33	20	19	12	3	0	14	20	7	278	BG
	CY	25	13	76	99	37	56	10	56	0	28	16	16	27	19	66	544	8	4	10	6	6	2	5	7	19	6	4	6	8	3	0	8	9	6	117	CY
	CZ	97	96	402	141	207	222	41	233	1	141	131	55	138	113	364	2.382	30	10	72	15	54	6	39	6	79	28	33	47	9	6	0	71	56	17	578	CZ
	EE	23	25	68	33	47	44	14	35	0	32	16	14	59	36	58	504	10	6	15	25	18	14	9	2	31	8	13	3	3	0	17	23	6	216	EE	
	HU	107	41	405	131	147	203	45	207	25	143	158	49	73	83	220	2.037	37	6	54	18	129	6	10	5	82	30	39	39	9	6	0	44	49	17	580	HU
	LV	13	19	50	14	29	36	6	23	0	20	10	10	21	17	41	309	5	2	6	14	6	8	8	1	19	5	9	4	2	1	0	6	11	5	112	LV
	LT	28	35	136	39	62	52	16	69	1	42	14	15	35	47	131	722	8	5	39	9	10	8	13	3	41	11	12	13	8	4	0	16	18	10	228	LT
	MT	9	6	21	9	21	14	5	32	0	10	8	11	2	2	8	158	2	7	6	2	5	1	3	10	4	1	1	3	29	1	0	1	0	6	82	MT
	PL	176	156	715	186	275	391	70	366	3	269	98	87	153	192	476	3.613	27	19	79	31	82	19	41	4	143	47	46	47	26	17	0	113	82	34	857	PL
	RO	40	15	116	67	62	121	8	101	8	59	44	25	26	37	127	856	33	6	28	8	30	5	11	1	47	21	15	12	9	2	0	18	22	7	275	RO
	SK	41	29	170	31	57	70	9	92	1	86	87	12	33	26	109	853	20	4	33	13	39	9	12	1	46	15	15	16	1	1	0	28	14	11	278	SK
	SI	53	42	181	66	100	130	28	136	0	68	76	33	47	57	182	1.199	19	6	47	13	39	4	13	3	47	12	16	35	6	6	0	37	34	9	346	SI
	TR	9	7	73	33	41	27	5	75	2	6	11	15	8	10	20	342	12	8	9	3	9	2	8	29	26	9	1	6	21	2	0	5	13	8	171	TR
	IS	23	46	79	32	43	75	11	39	0	27	13	25	23	32	75	543	3	3	6	3	6	1	4	1	17	2	1	6	2	12	0	35	6	4	112	IS
LI	1	0	10	2	0	7	0	3	0	2	0	0	1	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6	LI
NO	227	249	695	268	368	707	66	429	1	440	95	171	238	273	918	5.145	14	8	71	17	44	6	16	1	113	18	28	37	5	35	0	275	78	22	788	NO	
CH	213	110	961	199	342	693	52	512	12	307	157	94	138	197	614	4.601	20	9	56	23	49	11	18	0	82	22	14	34	13	6	6	78	128	51	620	CH	
IL	52	40	298	93	168	259	18	249	0	116	51	26	29	72	256	1.727	7	6	17	6	17	5	10	6	34	7	11	9	8	4	0	22	51	65	285	IL	
Total	1.194	957	4.601	1.529	2.103	3.195	424	2.749	56	1.852	1.062	685	1.074	1.242	3.791		278	117	578	216	580	112	228	82	857	275	278	346	171	112	6	788	620	285	3.464		
	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SV	UK	Tot	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI	TR	IS	LI	NO	CH	IL	Total		

TABLE 7: FUNDING OF FIFTH FRAMEWORK PROGRAMME

	Amount 1999-2002 (€ million)	Commitment 2002 (€ million)
Quality of life and management of living resources	2413	677,8
A user-friendly information society	3600	943,2
Competitive and sustainable growth	2705	728,3
Energy, environment and sustainable development	2125	640,5
<i>Environment and sustainable development</i>	<i>1083</i>	<i>328,6</i>
<i>Energy</i>	<i>1042</i>	<i>311,9</i>
Confirming the international role of Community research	475	149,8
Promotion of innovation and encouragement of SME participation	363	92,7
Improving human research potential and the socio-economic knowledge base	1280	350,0
Direct action (JRC)	739	171,6
Total for Fifth EC Framework Programme	13700	3753,9
Nuclear research	979	212,9
<i>Controlled thermonuclear fusion</i>	<i>788</i>	<i>194,9</i>
<i>Nuclear fission</i>	<i>191</i>	<i>18,0</i>
Direct action (JRC)	281	71,2
Total for Fifth Euratom Framework Programme	1260	284,1
TOTAL for Fifth EC + Euratom Framework Programmes	14960	4038,0

TABLE 8A: COMMUNITY RESEARCH COMMITMENTS OVER THE PERIOD 1984-2006 (CURRENT PRICES)

YEARS	Situation at 22/10/03																				TOTALS			
	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01 ⁴³	02 ⁴⁴	03 ⁴⁵		04 ⁴⁶	05	06
FP 1984-87	593,0	735,0	874,0	701,8	260,8	101,1	4,9																	3270,6
FP 1987-91				188,1	810,6	1241,3	1596,9	1270,7	230,9	14,8	3,9	0,2												5357,4
FP 1990-94								296,0	2160,5	2079,5	2014,7	1,0												6551,7
FP 1994-98 ⁴⁷												2982,5	3153,5	3485,6	3499,3									13120,9
FP 1998-02																3337,5	3607,4	3870,8	4038,0					14853,7
FP 2002-2006																			4055,0	4815,0	5080,0	5285,0		19235,0
RTD PROGRAMMES	593,0	735,0	874,0	889,9	1071,4	1342,4	1601,8	1566,7	2391,4	2094,3	2018,6	2983,7	3153,5	3485,6	3499,3	3337,5	3607,4	3870,8	4038,0	4055,0	4815,0	5080,0	5285,0	62389,3
APAS				49,4	56,6	69,8	113,1	168,8	308,4	440,2	571,8	2,1												1780,2
RTD+APAS	593,0	735,0	874,0	939,3	1128,0	1412,2	1714,9	1735,5	2699,8	2534,5	2590,4	2985,8	3153,5	3485,6	3499,3	3337,5	3607,4	3870,8	4038,0	4055,0	4815,0	5080,0	5285,0	64169,5
SPRINT							16,0	16,0	17,0															49,0
ECSC							17,5	17,5	17,5	17,5	17,5													87,5
80% of THERMIE							36,0	118,4	128,9	139,2	145,6													568,1
Total Research ⁴⁸	593,0	735,0	874,0	939,3	1128,0	1412,2	1784,4	1887,4	2863,2	2691,2	2753,5	2985,8	3153,5	3485,6	3499,3	3337,5	3607,4	3870,8	4038,0	4055,0	4815,0	5080,0	5285,0	64874,1



EC BUDGET(current prices)	28905	29925	35842	38392	43080	42569	45057	56111	61232	67760	65929	75355	82125	85028	86523	91645	74907	92116	95929	97815	109949	112148	114391
RTD progr. as % of budget	2,1	2,5	2,4	2,3	2,5	3,2	3,6	2,8	3,9	3,1	3,1	4,0	3,8	4,1	4,0	3,6	4,8	4,2	4,2	4,1	4,4	4,5	4,6
Total research as % of budget	2,1	2,5	2,4	2,4	2,6	3,3	4,0	3,4	4,7	4,0	4,2	4,0	3,8	4,1	4,0	3,6	4,8	4,2	4,2	4,1	4,4	4,5	4,6

⁴³ Provisional figures for 2001

⁴⁴ Exécution pour 2002

⁴⁵ Budget pour 2003

⁴⁶ 2004-2006 – Les chiffres proviennent de la proposition de la Commission pour l'APB 2004 (EUR 25) et de l'échéancier prévu pour les PC's pour 2005 et 2006.

⁴⁷ The amounts for the 1994-98 FP are those adopted following EU enlargement.

⁴⁸ EN RTD + THERMIE + ECSC + SPRINT + APAS

TABLE 8B: COMMUNITY RESEARCH COMMITMENTS OVER THE PERIOD 1984-2006 (CONSTANT 2000 PRICES)

YEARS	Situation at 22/10/03																				TOTALS			
	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01 ⁴⁹	02 ⁵⁰	03 ⁵¹		04 ⁵²	05	06
FP 1984-87	991,6	1159,3	1332,3	1035,1	371,5	137,0	6,4																	5033,2
FP 1987-91				277,4	1154,7	1682,0	2071,2	1566,8	275,2	17,4	4,5	0,2												7049,4
FP 1990-94								365,0	2575,1	2443,6	2323,8	1,1												7708,6
FP 1994-98 ⁵³												3396,9	3476,8	3739,9	3691,2									14304,8
FP 1998-02																3437,2	3607,4	3809,8	3890,2					14744,6
FP 2002-2006																				3836,3	4479,1	4630,8	4723,0	17669,2
RTD PROGRAMMES	991,6	1159,3	1332,3	1312,5	1526,2	1819,0	2077,6	1931,8	2850,3	2461,0	2328,3	3398,2	3476,8	3739,9	3691,2	3437,2	3607,4	3809,8	3890,2	3836,3	4479,1	4630,8	4723,0	66509,8
APAS				72,9	80,6	94,6	146,7	208,1	367,6	517,3	659,5	2,4												2149,7
RTD+APAS	991,6	1159,3	1332,3	1385,4	1606,8	1913,6	2224,3	2139,9	3217,9	2978,3	2987,8	3400,6	3476,8	3739,9	3691,2	3437,2	3607,4	3809,8	3890,2	3836,3	4479,1	4630,8	4723,0	68659,5
SPRINT							20,8	19,7	20,3															60,8
ECSC							22,7	21,6	20,9	20,6	20,2													106,0
80% of THERMIE							46,7	146,0	153,7	163,6	167,9													677,9
Total Research ⁵⁴	991,6	1159,3	1332,3	1385,4	1606,8	1913,6	2314,5	2327,2	3412,8	3162,5	3175,9	3400,6	3476,8	3739,9	3691,2	3437,2	3607,4	3809,8	3890,2	3836,3	4479,1	4630,8	4723,0	69504,2

6475,4, i.e. 2,41% of the budget
9548, i.e. 3,15% of the budget
14393, i.e. 4,04% of the budget
17484, i.e. 4,02% of the budget
18435, i.e. 4,16% of the budget
21558, i.e. 4,38% of the budget

EC BUDGET(current prices)	48336	47200	54637	56625	61368	57682	58440	69187	72982	79624	76043	85826	90546	91232	91269	94382	74907	90665	92417	92540	102278	102232	102226
RTD progr. as % of budget	2,1	2,5	2,4	2,3	2,5	3,2	3,6	2,8	3,9	3,1	3,1	4,0	3,8	4,1	4,0	3,6	4,8	4,2	4,2	4,1	4,4	4,5	4,6
Total research as % of budget	2,1	2,5	2,4	2,4	2,6	3,3	4,0	3,4	4,7	4,0	4,2	4,0	3,8	4,1	4,0	3,6	4,8	4,2	4,2	4,1	4,4	4,5	4,6
Deflation factors	0,598	0,634	0,656	0,678	0,702	0,738	0,771	0,811	0,839	0,851	0,867	0,878	0,907	0,932	0,948	0,971	1,000	1,016	1,038	1,057	1,075	1,097	1,119
Annual		6,0	3,5	3,3	3,6	5,1	4,5	5,2	3,5	1,4	1,9	1,3	3,3	2,7	1,7	2,4	3,0	1,6	2,2	1,8	1,7	2,0	2,0

⁴⁹ Provisional figures for 2001

⁵⁰ Exécution pour 2002

⁵¹ Budget pour 2003

⁵² 2004-2006 – Les chiffres proviennent de la proposition de la Commission pour l'APB 2004 (EUR 25) et de l'échéancier prévu pour les PC pour 2005 et 2006.

⁵³ The amounts for the 1994-98 FP are those adopted following EU enlargement.

⁵⁴ EN RTD + THERMIE + ECSC + SPRINT + APAS

TABLE 9: COUNTRY CODES

European Union	
BE	Belgium
DK	Denmark
DE	Germany
EL	Greece
ES	Spain
FR	France
IE	Ireland
IT	Italy
LU	Luxembourg
NL	Netherlands
AT	Austria
PT	Portugal
FI	Finland
SV	Sweden
UK	United Kingdom
Candidate countries and associated countries	
BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
EE	Estonia
HU	Hungary
LV	Latvia
LT	Lithuania
MT	Malta
PL	Poland
RO	Romania
SK	Slovakia
SI	Slovenia
TR	Turkey
IS	Iceland
LI	Liechtenstein
NO	Norway
CH	Switzerland
IL	Israel