COUNCIL DECISION

of 25 January 1999

adopting a specific programme for research, technological development and demonstration on improving the human research potential and the socioeconomic knowledge base (1998 to 2002)

(1999/173/EC)

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 130i(4) thereof,

Having regard to the proposal from the Commission [1],

Having regard to the opinion of the European Parliament [2],

Having regard to the opinion of the Economic and Social Committee [3],

(1) Whereas by Decision No 182/1999/EC [4], the European Parliament and the Council adopted the fifth framework programme of the European Community (hereinafter referred to as the fifth framework programme) for research, technological development and demonstration (hereinafter referred to as RTD) activities for the period 1998 to 20002 setting out the general outlines and scientific and technological objectives of the activities to be carried out in the field of improving the human research potential and the socioeconomic knowledge base;

(2) Whereas Article 130i(3) of the Treaty stipulates that the framework programme shall be implemented through specific programmes developed within each activity under the framework programme, and that each specific programme shall define the detailed rules for implementing it, fix its duration and provide for the means deemed necessary;

(3) Whereas, in accordance with Article 4(2) of Decision No 1110/94/EC of the European Parliament and of the Council of 26 April 1994 concerning the fourth framework programme of the European Community activities in the field of research, technological development and demonstration (1994 to 1998) [5] and Article 4(2) of the Council Decisions on the specific programmes implementing the fourth framework programme, the Commission has arranged for an external assessment to be conducted which it has transmitted to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions together with its conclusions and comments;

(4) Whereas, in accordance with Article 130j of the Treaty, Council Decision 1999/65/EC of 22 December 1998 concerning the rules for the participation of undertakings, research centres and universities and for the dissemination of research results for the implementation of the fifth framework programme of the European Community (1998 to 2002) [6] (hereinafter referred to as 'the rules for participation and dissemination') applies to this specific programme; whereas these rules allow the participation of the Joint Research Centre in the indirect actions covered by this specific programme;

(5) Whereas, for the purpose of implementing this programme, in addition to cooperation covered by the Agreement on the European Economic Area or by an Association Agreement, it may be appropriate to engage in international cooperation activities, in particular on the basis of Article 130m of the Treaty, with third countries or international organisations;

(6) Whereas implementation of this programme will also comprise activities and mechanisms aimed at stimulating, disseminating and exploiting RTD results, in particular *vis-à-vis* small and medium-sized enterprises (SMEs);

---

[1] OJ C 260, 18.8.1998, p. 87.
[2] Opinion delivered on 15 December 1998 (not yet published in the Official Journal).
[3] OJ C 407, 28.12.1998, p. 123.
[4] OJ L 26, 1.2.1999, p. 1.
[5] OJ L 126, 18.5.1994, p. 1. Decision as last amended by Decision No 2535/97/EC (OJ L 347, 18.12.1997, p. 1).
[6] OJ L 26, 1.2.1999, p. 46.

(7) Whereas it is important that the scientific, industrial and user communities should contribute substantially to the definition of activities to be undertaken and should be involved, as appropriate, in the implementation of this programme;

(8) Whereas research activities under the fifth framework programme should also be geared towards innovation in order to contribute, *inter alia*, to the objectives of the first action plan for innovation;

(9) Whereas the improvement of human potential is an essential factor in the enhancement of competitiveness, innovation and employment in the Community;

(10) Whereas special emphasis should be placed on encouraging the participation of SMEs;

(11) Whereas the equal opportunities policy of the Community must be taken into account in the implementation of the programme;

(12) Whereas efficient and transparent management contributes to a more effective and user-friendly programme;

(13) Whereas administrative expenditure should be included in the Community budget in a transparent fashion;

(14) Whereas the implementation of this programme should be monitored with a view to adapting it, where appropriate, to scientific and technological developments; whereas in due course there should also be an assessment of progress with the programme by independent experts;

(15) Whereas the Scientific and Technical Research Committee has been consulted on the scientific and technological content of the specific programmes,

HAS ADOPTED THIS DECISION:

Article 1

In accordance with Article 3(1) of the fifth framework programme, the specific programme on improving the human research potential and the socioeconomic knowledge base (hereinafter referred to as the specific programme) is hereby adopted for the period from 25 January 1999 to 31 December 2002.

Article 2

1. In accordance with Annex III to the fifth framework programme, the amount deemed necessary for carrying out the specific programme is EUR 1 280 million, including a maximum of 6,55 % for the Commission's administrative expenditure.

An indicative breakdown of this amount is given in Annex I.

2. Of the amount in paragraph 1:

— EUR 293 million is for the period 1998 to 1999,

and

— EUR 987 million is for the period 2000 to 2002.

In the case referred to in Article 2(1)(c) of the fifth framework programme, the Council shall adapt the latter figure in accordance with Article 2(1)(c), second indent of the fifth framework programme. Pending a decision by the Council, this specific programme shall not be implemented beyond the provision of the first indent.

3. The budgetary authority shall, in compliance with the scientific and technological objectives and priorities laid down in this Decision, set the appropriations for each financial year taking into account the availability of resources within the multiannual financial perspective.

Article 3

1. The general outlines, the scientific and technological objectives and the priorities for the specific programme are set out in Annex II. They are consistent with the principles and the three categories of selection criteria indicated in Annex I to the fifth framework programme.

2. In accordance with these principles and criteria the selection criteria indicated in Article 10 of the rules for participation and dissemination shall be applied for the selection of the RTD activities to be carried out.

Selection criteria specific to this programme are given in Annex IV.

All these criteria shall be complied with in the implementation of the programme, including the work programme referred to in Article 5(1), although they may be weighted differently.

3. The rules for participation and dissemination shall apply to the specific programme.

4. The detailed rules for financial participation by the Community in the specific programme are those referred to in Article 4 of the fifth framework programme.

The indirect RTD actions under the specific programme are defined in Annexes II and IV to the fifth framework programme.

Specific rules for implementing the programme are set out in Annex III to this Decision.

Article 4

In the light of the criteria referred to in Article 3, and the scientific and technological objectives and priorities set out in Annex II, the Commission:

(a) shall monitor, with appropriate assistance from independent external experts, the implementation of the specific programme and, where appopriate, submit proposals to the Council for adapting it, in accordance with Article 5(1) of the fifth framework programme;

(b) shall arrange for the external assessment provided for in Article 5(2) of the fifth framework programme to be conducted concerning the activities carried out in the fields covered by the specific programme.

Article 5

1. The Commission shall draw up a work programme specifiying:

(a) in greater detail, the objectives and RTD priorities of Annex II;

(b) the indicative timetable for the implementation of the specific programme;

(c) the coordination arrangements set out in Annex III and arrangements to secure the objectives, related to innovation and the participation of SMEs, of the third activity of the fifth framework programme;

(d) where necessary, the selection criteria and the arrangements for applying them for each type of indirect RTD action.

2. The work programme shall take account of relevant interests, in particular the scientific, industrial and user communities. It shall serve as a basis for implementing the indirect RTD actions according to the procedures set out in the rules for participation and dissemination.

3. The work programme shall be updated where appropriate and be made available by the Commission to all interested parties in a user-friendly form, including in electronic form.

Article 6

1. The Commission shall be responsible for the implementation of this specific programme.

2. The procedure laid down in Article 7 shall apply for the adoption of the following measures:

— the drawing-up and updating of the work programme referred to in Article 5(1), including regarding the content of calls for proposals,

— approval of RTD actions proposed for funding, including participation by entities from third countries, where the estimated amount of the Community contribution under this programme is equal to or more than EUR 0,3 million,

— the drawing-up of the terms of reference for the external assessment provided for in Article 5(2) of the fifth framework programme,

— any adjustment to the indicative breakdown of the amount as set out in Annex I.

Article 7

1. The Commission shall be assisted by a programme committee (hereinafter referred to as 'the

committee') composed of representatives of the Member States and chaired by the representative of the Commission.

2. In the cases referred to in Article 6(2), the representative of the Commission shall submit to the committee a draft of measures to be taken. The committee shall deliver its opinion on the draft measures referred to above within a time limit which the Chairman may lay down according to the urgency of the matter. The opinion shall be delivered by the majority laid down in Article 148(2) of the Treaty in the case of decisions which the Council is required to adopt on a proposal from the Commission. The votes of the representatives of the Member States within the committee shall be weighted in the manner set out in that Article. The Chairman shall not vote.

3(a) The Commission shall adopt the measures envisaged if they are in accordance with the opinion of the committee.

(b) If the measures envisaged are not in accordance with the opinion of the committee, or if no opinion is delivered, the Commission shall, without delay, submit to the Council a proposal relating to the measures to be taken. The Council shall act by a qualified majority.

If, on expiry of a period of nine weeks from the referral of the matter to the Council, the Council has not acted, the proposed measures shall be adopted by the Commission.

4. The Commission shall regularly inform the committee of the overall progress of the implementation of the specific programme, and shall in particular provide it with information about the progress of all RTD actions funded under this programme.

5. The committee will be supported by a subcommittee composed of representatives from Member States. Its task will be to provide expert advice both on the implementation of socioeconomic research in this programme as well as to provide an overview of socioeconomic research across the whole of the framework programme.

Article 8

In accordance with Article 5(4) of the fifth framework programme, the Commission shall regularly inform the Council and the European Parliament of the overall progress of the implementation of the programme, including on the participation of SMEs and the simplification of admininistrative procedures.

Article 9

This Decision is addressed to the Member States.

Done at Brussels, 25 January 1999.

For the Council

The President

J. FISCHER

ANNEX I

INDICATIVE BREAKDOWN OF THE AMOUNT DEEMED NECESSARY

(million EUR)

Type of activity	Amount
— Supporting training and mobility of researchers	858
— Enhancing access to research infrastructures	182
— Promoting scientific and technological excellence	50
— Key action: improving the socioeconomic knowledge base	165
— Support for the development of scientific and technology policies in Europe	25
Total	1 280

ANNEX II

THE GENERAL OUTLINES, THE SCIENTIFIC AND TECHNOLOGICAL OBJECTIVES AND THE PRIORITIES

INTRODUCTION

The world is increasingly based on knowledge. The Community's prime asset in this area is the quality of its researchers, engineers and technicians. The aim is to preserve and help develop this knowledge potential through greater support for the training and mobility of researchers and by enhancing access to research infrastructures.

The Community also has a solid tradition of research in social and economic science and the humanities, which needs to be mobilised to identify economic and social trends and requirements, both current and future, in order to contribute to the Community's competitiveness and quality of life of its citizens.

GENERAL OBJECTIVES

The general objectives of this programme, to be realised in concert with related activities elsewhere in the framework programme, are centred on two main areas of activity, to improve the human research potential and to strengthen the socioeconomic knowledge base. To this end, actions will be undertaken:

— to develop the Community's human research potential, making special efforts to ensure equality of access and a better balance between men and women, notably through the training and mobility of researchers so as to contribute, *inter alia* , to efforts for creating new jobs,

— to enhance access to research infrastructures,

— to help make the Community an attractive location for researchers and to promote European research in the international arena and to promote a European scientific and technological culture,

— to strengthen, through a specific key action, the socioeconomic knowledge base for a better understanding of key problems facing European society,

— to help develop scientific and technological policies and other Community policies.

1. ACTIONS SPECIFIC TO THE PROGRAMME

A. Improving human research potential

(i) Supporting training and mobility of researchers

The individual and collective expertise of the Community's researchers is a considerable asset. However, scientific research takes place in a strongly competitive worldwide environment and compared with our main competitors, the Community has a relative shortage of researchers; a rather high fragmentation and duplication of research effort; a certain isolation of research teams, particularly in the peripheral and less-favoured regions of the Community; a relatively low mobility of researchers, both geographically and between academia and industry; a general tendency towards an ageing workforce, which also affects the research field; and underuse of the potential of female scientists.

To address these issues, 'Supporting training and mobility of researchers' will concentrate on helping to create a European research area through the following overall objectives: stimulating training through research of young researchers, especially those in the early stages of their professional career; promoting equality of opportunities between women and men in the research field; promoting transnational cooperation between research teams, including interdisciplinary approaches, particularly through networking around a common research project; promoting the mobility of researchers throughout Europe; encouraging cooperation, interactions and staff mobility between academic and industrial research; and promoting the scientific and technological cohesion of the Community, particularly with respect to its less-favoured regions.

This action of the programme will be implemented through two lines: research training networks and a coherent system of Marie Curie fellowships. They will be open to all fields of scientific research that contribute to the Community's objectives in research, technological development and demonstration, for projects chosen freely by the participants themselves. In the selection of projects, there will be no pre-established target in terms of scientific discipline or topic — the selection being made on the criteria of scientific excellence and relevance to the objectives of the actions alone (i.e. a bottom-up approach). However, there will be an (*ex-post*) assessment of project allocation in relation to research areas and participation by men and women.

Research training networks

The primary objective is to promote training through research, especially of young researchers at pre-doctoral and at post-doctoral level, within the frame of high-quality transnational collaborative research projects, including those in emerging fields of research. Community support will be awarded both to reinforce the research teams of a network through the temporary appointment of young researchers coming from a country other than that of the team concerned and to contribute towards the costs of coordinating the collaborative research project on which the network is based.

Each network will be required to define an appropriate training programme for its young researchers. Its training programme will take advantage of the international nature of the network and, when relevant, the multidisciplinarity of its joint project, the complementarity of its teams and the network's connections with industry. Research training networks will promote the training of researchers in an industrially relevant environment as well as encourage interplay between academic and industrial research, where these features are relevant to the networks training programme. All networks will be required to offer equal opportunities to male and female researchers.

System of Marie Curie fellowships

This line consists of a coherent system of Marie Curie fellowships centred on individual fellowships for young high-quality researchers with the necessary research experience, awarded for topics chosen by the researchers themselves. This system is a focused attempt at a more efficient use of Community funding of fellowships for training through research.

The researchers participating are of three categories: (i) postgraduates; (ii) young researchers with the necessary research experience; these are typically researchers with a doctoral degree or at least four years of full-time research experience at postgraduate level other than doctoral studies; (iii) experienced researchers; these are typically researchers with at least 10 years of research experience at post-doctoral level and who are established staff members of a research institution. This action will provide equal opportunities for men and women.

Marie Curie individual fellowships

The scheme will provide advanced training through research for the best of Europe's young researchers with a view to these fellows becoming Europe's leading researchers. The research institutions will host young researchers with the necessary research experience.

In addition, after completion of a two-year individual fellowship, fellows originating from a less-favoured region and who wish to return to a less-favoured region in their country of nationality may receive a return fellowship.

Additional and complementary schemes include:

Marie Curie industry host fellowships

The scheme will provide young researchers with opportunities to carry out research in industrial or commercial environments. The aim is also to stimulate cooperation between industry and academia. The industrial and commercial enterprises will host postgraduates and young researchers with the necessary research experience. The host will be expected to provide adequate research facilities and supervision arrangements for the fellow. There will be special measures for SMEs in order to stimulate the participation of these enterprises in the scheme.

Marie Curie development host fellowships

The scheme will help develop high-level research capacity in research institutions in the less-favoured regions of the Community. Research institutions established in less-favoured regions with a need to develop new areas of competence will host young researchers with the necessary research experience. By this means the scientific and technological cohesion of the Community will be enhanced.

Marie Curie experienced researchers fellowships

This scheme will harness the expertise of Europe's experienced researchers for the transfer of knowledge and technology between industry and academia (in both directions) and for similar transfer to the less-favoured regions. The experienced researcher will come from an industrial or commercial enterprise and go to a university or research centre, or vice versa; or will come from, or go to a research institution in a less-favoured region.

Stays at Marie Curie training sites

The scheme will provide young researchers pursuing their doctoral studies with the possibility to undertake part of them at a Marie Curie training site, and by this means optimising the use of specialist training sites in order to create Community added-value.

(ii) Enhancing access to research infrastructures

Access to major research infrastructures is increasingly indispensable for researchers working at the forefront of science. The ability of European research teams to remain competitive with teams elsewhere in the world depends on their being supported by such state-of-the-art infrastructures.

The term 'research infrastructures' refers to facilities and establishments that provide essential services to the research community. It covers, for example, singular large-scale research installations, collections, special habitats, libraries, databases, integrated arrays of small research installations, as well as infrastructural centres of competence which provide a service for the wider research community based on an assembly of techniques and know-how.

As most of the major research infrastructures in Europe are operated by national authorities principally for the benefit of their national researchers, access to these infrastructures is often restricted largely or even entirely to national research teams.

The result is that researchers do not always have the opportunity to access the infrastructures in Europe most appropriate for their work. In addition, some scarce state-of-the-art facilities owned by industrial companies tend to be closed to researchers working outside the company.

Another feature of Europe's research infrastructures is the relatively low level of transnational cooperation that exists between infrastructure operators in many fields. A strong Community added-value would arise if the same culture of cooperation could be created among infrastructure operators as is now beginning to exist between Europe's researchers.

In the context that the construction and operation of infrastructures is the responsibility of national authorities, 'Enhancing access to research infrastructures' has the following general objectives:

— to sponsor new opportunities for transnational access to major research infrastructures of Community-wide interest,

— to stimulate infrastructure operators and users to work together in order to make more effective use of research infrastructures and hence to improve the service they provide to the scientific community,

— to arrange coordinating, supporting and accompanying actions that ensure consistency with related actions undertaken in other specific programmes.

It will be open to infrastructures in all fields of scientific research that contribute to the Community's objectives in research, technological development and demonstration, to the extent that such measures are not undertaken by other activities of the framework programme. It will be implemented primarily through an action to help researchers with transnational access to major research infrastructures. In addition, there will be two complementary actions — infrastructure cooperation networks and research infrastructure RTD projects.

Transnational access to major research infrastructures

The objective is to sponsor new opportunities for research teams (including individual researchers) to obtain access to the major research infrastructures most appropriate for their work, irrespective of where in the Member States or Associated States they or the infrastructure is located.

To be considered for Community support, the infrastructure must provide a world-class service essential for the conduct of top quality research, must be rare in Europe, must have investment or operating costs that are relatively high in relation to those costs in its particular field, and must provide adequate scientific, technical and logistic support to external, particularly first-time, users.

Community support will be awarded to the selected infrastructure operators for them to provide access to their facilities free of charge to transnational users. Each selected infrastructure operator will be expected to publicise widely the opportunities being offered and to arrange for an independent peer-review of proposals submitted to it based on scientific merit, where in addition priority is to be given to first-time users and to users coming from countries where no similar facility exists.

As a general rule, users conducting proprietary research will not be supported under this action. An exception will, however, be made in the case of SMEs which wish to use a particular infrastructure for the first time.

Infrastructure cooperation networks

The objective is to catalyse the self-coordination and the pooling of resources between infrastructure operators in order to foster a culture of cooperation between them, to generate critical mass for research into higher performance techniques, instrumentation and technologies, to spread good practice, to promote common protocols and interoperability, to encourage complementarity and to stimulate the creation of 'distributed' and 'virtual' large facilities.

Community support will be awarded to help coordinate those joint activities that could lead to the more effective use and exploitation of present and future infrastructures relevant to the network. Participants in these networks will be operators of research infrastructures, research teams in universities, in research centres and in industry, representatives of users of the infrastructures, and equipment manufacturers. Each network will be devoted to different aspects of Europe's research infrastructures.

Research infrastructure RTD projects

The objective is to support cooperative research efforts that could have widespread significance at a Community level for enhancing access to and improving the service provided by infrastructures in a

particular field. Such RTD projects will be particularly encouraged when they are in support of the work of the infrastructure cooperation networks of this programme or of the precursor concerted actions of the earlier training and mobility of researchers' programme.

(iii) Promoting scientific and technological excellence

Scientific and technological excellence are essential prerequisites for Europe to succeed in the competitive environment of international research and scientific development. The promotion of excellence would be expected to encourage the best individuals and teams to become involved in and be committed to European research and to increase the visibility of outstanding research findings produced by European researchers.

At the same time it will be important to improve the public understanding of science and research in society with the objective of creating a favourable environment for research and technological development, and in particular for activities carried out under Community framework programmes. Scientific activities and research can only succeed and have the expected beneficial impact if citizens develop a basic understanding of science and scientific issues and come to an overall positive perception of relevant activities and their results.

Where possible, activities will build on and complement national activities.

High-level scientific conferences

High-level scientific conferences will contribute to the advancement of science through exchange and to create conditions for experienced researchers, working at the cutting edge of scientific and technological development, to impart their knowledge and experience to the younger generation. Scientific conferences will also create the framework for the networking of Community researchers active outside the Community to build up or preserve their contacts and scientific relations with colleagues in Europe.

Scientific conferences may be organised as Euro-conferences, Euro-courses, Euro-workshops or Euro-summer schools. They will, as a general rule, be small-scale events. Bigger events may be supported with the objective of facilitating the participation of young researchers. Non-traditional forms of scientific conferencing such as electronic conferences will be encouraged. Scientific conferences will be open to all fields of scientific research on topics freely chosen by the researchers themselves.

Distinctions for high-level research work

These distinctions will give public recognition and visibility to researchers having successfully completed outstanding scientific or technological results from European collaborative research. Distinctions for younger people who have carried out remarkable scientific work while still in the secondary or tertiary educational system will motivate them to continue their efforts in the interest of Europe's scientific and technological future and also encourage other individuals of the same age to take an active interest in science and research.

Distinctions will be foreseen as follows: the Descartes Prize for outstanding scientific and technological achievements resulting from European collaborative research; an award to undergraduate students of higher education institutions in Europe having developed original scientific ideas or concepts in areas which are relevant to the advancement of European science; the European Union Contest for Young Scientists, catering for scientific talents in the age range 15 to 20 years, to be organised in conjunction with the appropriate 'public awareness' activities.

Raising public awareness

The main objective will be to raise public awareness for scientific activities and technological developments, in particular those undertaken in European research programmes, and thereby bridge the gap between science in its European dimension and the public. This should help European citizens

to better understand both the beneficial impact of science and technology on their day-to-day lives as well as limitations and possible implications of research and technological developments. The activity will also aim to increase scientists' awareness of issues and subjects that are of concern to the public.

Community support will be provided: to promote European networking and the exchange of best practice between successful projects and initiatives at national or regional level; to arrange for regular encounters between scientists and science communicators; to promote the participation of women in science; to support the organisation of a European Science and Technology Week as a showcase for the concerted and coordinated display of European efforts in science and research; to provide, via electronic networks and other appropriate means, information on topical scientific and technological subjects in a language that is understandable to the scientifically interested but non-specialist citizen.

B. **Key action: improving the socioeconomic knowledge base**

The European Union draws its strength both from the social and cultural diversities between its members as well as from the similarities of their experiences and common values. The Community also has a solid tradition of research in social and economic science and the humanities, which need to be mobilised to identify economic and social trends and requirements, both current and future, in order to contribute to the Community's competitiveness and quality of life of its citizens.

In a period of increasing challenges, such as unacceptable levels of unemployment, an ageing population, the globalisation of economies, an increase in inequalities, and a declining relative contribution to the world economy, European society will have to undergo changes towards achieving sustainable socioeconomic development, the improvement of the quality of life of all its citizens and to maintain and enhance Europe's competitive position in the world. Social sciences must therefore be in a position to respond to these challenges, overcome national boundaries, through reinforcing cooperation between them and enhancing their analytical capacity and thereby supporting policy-making. Furthermore the process of European integration itself has given rise to a new object of study, European society, which is different from the sum of its components, although clearly dependent on them.

The objective of this key action will be to improve our understanding of the structural changes taking place in the European society in order to identify ways of managing change and to involve European citizens more actively in shaping their own futures. This will involve the analysis of the main trends giving rise to these changes, the analysis of the relationships between technology, employment and society, the impact of new technologies on working conditions, the reappraisal of participation mechanisms for collective action at all levels of governance and the elaboration of new development strategies fostering growth of employment and economic and social cohesion.

This key action covers a number of subjects linked to the general objectives of the framework programme and aims at defining the base for employment-generating social, economic and cultural development and for building a European knowledge society. These subjects should not be seen in isolation, but as interrelated parts of a coherent and comprehensive framework.

Support will aim at developing a conceptual understanding of the processes described above, built on empirical, comparative and prospective research, including constructing and integrating data and indicator systems and establishing a common research infrastructure. These activities will therefore contribute to provide the policy decision-making process with a sound knowledge of the challenges facing Europe, of their main consequences and of possible policy options to tackle them.

Societal trends and structural changes

Against a background of profound structural, demographic and social changes, research within this theme will aim at elucidating the complex interactions between societal trends, life chances, changes in family structures, economic changes, labour-market institutions, cultural patterns and value systems, taking into account European regional diversities. The analysis will include the phenomena of xenophobia, racism and migration. Attention will be accorded on the impact on economic development, social integration, social protection and factors of social inequalities and discrimination.

The study of these interactions will provide a better understanding of the changing patterns of work and organisation of time, of the use of new types of atypical and part-time or temporary jobs, of the capacity of education and training to prepare individuals over their lifetime to a changing environment and to enhance knowledge of the gender issue in European society. Research work will provide a sound knowledge base and contribute to the formulation and development of the relevant European policies.

Technology, society and employment

Research under this theme aims to understand better the relationship of interdependency and embeddedness between technology and society and to contribute to an integrated approach to planning and development. While the need for integrating social, institutional and environmental concerns in the technological development process is now accepted, the possible options vary according to different kinds of technologies, the state of their development and diffusion in society. Research will be undertaken on methods of interaction between the various actors concerned — suppliers, users, advisory bodies, decision-makers and public authorities. An improved understanding of the deployment and the impact of technologies in various socioeconomic, territorial, institutional, political and cultural contexts in the Union is expected to arise from this work. Research will also examine the role of the public sector in the innovation process and how authorities interact with other partners.

Attention will be paid to the relationships between technology and employment, in particular the new information and communications technologies and the new ways of organising production and labour, including newly emerging professions, the geographical location of employment, changes in the working conditions and in the workforce skills. The role of innovation in education and training, the concept of lifelong learning, as well as how education and training can stimulate innovation, promote employment, social integration and equal opportunities, will also be examined.

Governance and citizenship

In the context of European integration, there is a need to reassess the role of the different levels of governance in Europe (local, regional, national and supranational). The aim will be to analyse the mutual articulation of responsibility and accountability at all levels and their real capacity as agents of change, while allowing for the development of mechanisms of dialogue, deliberation and decision-making to ensure effective cooperation between all the actors concerned.

Research will set out to explain to what extent the various types of economic and social regulation in Europe are the consequences of a specific socio-institutional and cultural construction, in order to define better European integration strategies. It will address both regulation by public authorities as well as civil initiatives and structures such as political parties, public interest groups and social partners. The examination of the role of public authorities will also cover the reassessment of their missions, and of the concept of public service and the notion of public interest. In this framework, the analysis of the evolution of welfare systems will be a key element. In these analyses of governance, the notion of political, economic and social power will also be taken into account.

The analyses will be accompanied by the study of the concept of citizenship across Europe, and of types and systems of participation of citizens and regulation to which they give rise. Research will also analyse the influence of the various components of culture (traditions, language, history, heritage, religions, migrations) and of educational models on the development of values. Analysis at the level of the individual could complement, where appropriate, research in this area. The role of media in a global economy, in which international audiovisual cultural products are increasingly present, will also be examined. The analyses will examine the interrelationships between governance and citizenship.

New development models fostering growth and employment

This prospective work will seek to explore new sustainable development models to foster growth, job creation, equal opportunities, the reduction of inequalities and the improvement of quality of life. It will investigate the dynamics of creation and distribution of wealth and the role of the public sector in this context in a globalised economy where intangible and service factors predominate. This will involve the development of indicators and methodologies for assessing the social and economic added-value of the various production models, identifying competitiveness factors including human capital, and characterising the different policies best adapted to the European economic area, taking into account Europe's regional divergencies, and to the evolution of Europe in the world economic relations.

Research will concentrate on analyses of issues such as organisational innovations, new types of work and employment, including the working potential of older population, the responses to the increasing demand for services, the development of non-profit mutual supporting activities, and innovations in socioeconomic partners' cooperation. Socioeconomic and demographic differences across Europe and the impact of the development models on economic and social cohesion will be included in the analysis.

C. **Support for the development of scientific and technology policies in Europe**

To fulfil the tasks conferred on it by the Treaty in the field of research and innovation, the European Union needs to increase its ability to anticipate the issues at stake for Europe in the field of science and technology by exploiting the resources available to it in this area more effectively.

A considerable amount of research work and studies are carried out and indicators produced ahead of the framing of science and technology policy at national and European level. The inadequate interaction between very diverse national approaches, and the complexity and often transnational dimension of the issues addressed by the work in question call for networking and the collation and coordinated exploitation of results at European level in order to shed light on certain major issues in good time.

In order to support the development of the specific base of knowledge about scientific and technology policy issues which is needed by both national and European decision-makers and other users, these activities provide a flexible, strategic intelligence-gathering, collating and evaluation service. By underpinning and complementing the activities carried out at national and international level, the activities are intended to promote the exchange of information and experience between decision-makers and researchers and enable knowledge to be put to better use.

Strategic analysis of specific political issues

This activity involves the provision of support for the analytical and collating work to be carried out on a limited number of specific issues relating to scientific and technology policy. This work will be carried out by groups of experts from specialised national and international organisations and include studies, seminars and conferences. They will also provide policy-makers with a source of scientific advice. The matters to be dealt with will be identified by decision-makers and other players concerned with science and technology policies in the following fields:

— matters relating to the implications, for science and technology policies, of the challenges posed by scientific and technological change, globalisation, changes in social demands, the new forms of competition and cooperation between businesses, and job-creation and growth in a manner that is environmentally sound and contributes to social cohesion,

— matters relating to how the objectives and priorities of these policies and the instruments used to implement them enable them to be tackled and analysis of their socioeconomic impact.

Common basis of science, technology and innovation indicators

The design, coordination and assessment of RTD strategies in Europe require the availability of relevant and comparable indicators at different levels (national, regional, European, world), including indicators measuring progress towards sustainable development. This second type of activity, carried out in conjunction with the Statistical Office and the relevant Commission Services and in cooperation with the specialist institutes in Europe, should gradually establish a common European base of science, technology and innovation indicators.

It will be a question of coordinating and funding the work needed in order to compile appropriate statistics and new indicators covering the Union and the main third countries; it will in this way be possible to make available to the authorities concerned in the Member States, the European and national parliamentary assessment offices, and the Commission Services and all interested parties, a coherent set of data sent electronically and accompanied by the services needed for their processing, analysis and proper use.

2. INTERACTION WITH RELATED ACTIONS IN THE OTHER FRAMEWORK PROGRAMME ACTIVITIES

A major feature of this programme will consist of the coordination and support of relevant activities throughout the framework programme, concerning, in particular, researchers' training, support for research infrastructures and the overall socioeconomic dimension of Community research. The horizontal socioeconomic research dimension within the vertical thematic programmes makes coordination an important factor for the success of the framework programme. More specifically:

— for the Marie Curie fellowships: these could also be implemented by the thematic programmes. In order to ensure consistency, common rules will apply concerning eligibility, implementation modalities, legal and financial provisions, and a single entry point for the reception of proposals will be set up,

— for major research infrastructures: consistency and complementarity of approach will be ensured with the relevant actions of the other specific programmes,

— for socioeconomic research: coordination will be achieved through participation in the elaboration of the work programmes, support in the creation of appropriate evaluation mechanisms, in particular through the participation of socioeconomic scientists, and collection and dissemination of relevant information, in order to ensure that the socioeconomic dimension is consistently taken into account in the specific programmes,

— for the activities in support of the development of science and technology policies in Europe: consistency and complementarity with the actions of the other specific programmes will be ensured through coordination, the use of harmonised instruments (e.g. policy-oriented thematic networks and expert panels) and a common approach for the dissemination of results (e.g. publications, seminars and conferences).

ANNEX III

SPECIFIC RULES FOR IMPLEMENTING THE PROGRAMME

The specific programme will be implemented through the indirect RTD actions as provided for in Annexes II and IV of the fifth framework programme. In addition, the following rules specific to this programme will apply:

1. SPECIAL CONDITIONS

Supporting training and mobility of researchers

Research training networks

A research training network will normally consist of at least five mutually independent legal entities from at least three Member States or Associated States.

Community funding will cover up to 100 % of the additional eligible costs connected with the temporary appointment of young researchers, both pre-doctoral and post-doctoral, and with coordinating the joint project on which the network is based. The maximum funding for a network as a whole will correspond to the cost of taking on a young researcher in each of its partners as well as making a contribution to the costs of coordinating the project. At least 60 % of the funding for each network will be attributed to the costs of appointing young researchers.

Community support will normally not be granted to procure durable equipment nor to finance the research work itself.

System of Marie Curie fellowships

Only legal persons established and international organisations located in a Member State or Associated State are eligible to participate as host institutions.

Researchers eligible to participate in the system of Marie Curie fellowships are of three categories, as defined in Annex II to this programme. They must be nationals of a Member State or an Associated State or residing in the Community for at least the last five years [1].

The research will be undertaken in a country other than the one where the research fellow's nationality and most recent centre of activity is located. Exceptions however shall apply, in cases where knowledge and technology will be transferred to the less-favoured regions for:

— individual return fellows,

— experienced researchers, provided that their research be undertaken in a country other than the one in which the experienced researcher is an established member of a research institution.

Marie Curie individual fellowships

The application for an individual fellowship will be made by the fellow in conjunction with the host institution. The fellows will be selected by the Commission on the basis of the criteria stipulated in Annex IV of the present programme.

The fellowships will be paid to the host institution in accordance with Annex IV to the fifth framework programme. The amount of the allowance for the fellow will be established for each Member State and Associated State taking into account both the high standard of the Marie Curie

[1] Applicants for Marie Curie fellowships should ensure that they are able to fulfil the immigration and visa requirements for the Member State or Associated State in which they intend to undertake their fellowship.

fellows and the overall situation of researchers of a corresponding level in the host country; it will include a provision for proper social security expenses.

Each host must ensure that the fellow is covered under the social security scheme which is applied to employed workers within the Member State or Associated State concerned, or under a social security scheme providing a protection which is at least comparable, in terms of level and scope.

Marie Curie industry host fellowships

The host institutions will be selected by the Commission on the basis of the criteria stipulated in Annex IV to the present programme. The fellows will subsequently be selected by the host institution. The Commission will establish detailed criteria, concerning notably qualification and equal access opportunities to be followed by the industry host in the selection of fellows. Before a fellowship contract is offered, the selected fellows will have to be confirmed by the Commission.

A joint funding from the Community and the host institution will enable the host institution to finance postgraduates and young researchers with the necessary research experience.

Marie Curie development host fellowships

The host institutions will be selected by the Commission on the basis of the criteria stipulated in Annex IV to the present programme. The fellows will subsequently be selected by the host institution. The Commission will establish detailed criteria, concerning notably qualification and equal access opportunities to be followed by the host in the selection of fellows. Before a fellowship contract is offered, the selected fellows will have to be confirmed by the Commission.

Community funding will enable the host institution to finance young researchers with the necessary research experience.

Marie Curie experienced researchers' fellowships

The application for an experienced researcher fellowship will be made by the fellow in conjunction with the host institution. The experienced researchers will be selected by the Commission on the basis of the criteria stipulated in Annex IV to the present programme.

Community funding will enable the host institution to finance an experienced researcher.

Stays at Marie Curie training sites

A training site is a clearly identifiable part of a research organisation, such as a research group or interrelated research groups. The training site must be internationally recognised within its respective field and have proven experience in doctoral training, particularly the training of postgraduate students from abroad. In addition, organisers of international doctoral studies, in the framework of a formal collaboration between participating organisations in different countries having the form of certain common requirements for achieving the doctoral degree, are considered possible training sites.

The training sites will be selected by the Commission on the basis of the criteria stipulated in Annex IV to the present programme. The young researchers will subsequently be selected by the training site. The Commission will establish detailed criteria, concerning notably qualification and equal access opportunities to be followed by the training site in the selection of fellows. Before a fellowship contract is offered, the selected fellows will have to be confirmed by the Commission.

The young researchers must be pursuing doctoral studies in a country other than that of the host institution in a subject area similar to that of the training site. They must undertake the period of training at the training site as an integral part of their doctoral studies.

Community funding will enable the training site to finance short stays for the young researchers of a maximum duration of an academic year.

Enhancing access to research infrastructures

Transnational access to major research infrastructures

Participants in this line will be legal entities which operate major research infrastructure. International organisations operating major research infrastructure in the Member States or Associated States may exceptionally participate with financing from the programme provided that the access being financed by the programme is both complementary to the mission of the organisation concerned and not eligible for support from the organisation's own financial resources.

Community funding is intended to cover 100 % of the travel and subsistence costs of visits to the infrastructure by teams of researchers working in Member States and Associated States other than the State where the owner and operator of the facility is located. Community funding will also cover up to 100 % of the additional eligible costs of providing teams of researchers with access to the infrastructure; such costs will be calculated either on the basis of a unit user-fee to be negotiated with each infrastructure operator and to be derived from its direct operating costs, or on the basis of the actual additional costs connected with making the facility available to the visiting teams of researchers. Eligible costs will exclude all contributions to capital costs.

Infrastructure cooperation networks

Infrastructure cooperation networks will be implemented as thematic networks. Each network will contain at least three mutually independent legal entities which operate research infrastructure from at least three different countries of the Member States and Associated States and will be coordinated by a legal entity which operates a research infrastructure.

Research infrastructure RTD projects

RTD projects will contain at least two mutually independent legal entities which operate research infrastructure in at least two countries of the Member States and Associated States. The project will be coordinated by a legal entity which operates a research infrastructure.

Concerted actions

The Commission may initiate, in conjunction with legal entities which operate research infrastructure and are contractors under this programme (or under the earlier training and mobility of researchers programme), concerted actions, to encourage the exchange of information between infrastructure operators and researchers from Member States or Associated States on subjects of common interest, complementing national and international efforts.

Promoting scientific and technological excellence

High-level scientific conferences

Participants in this line will be legal entities from all fields of scientific endeavour who wish to organise a scientific conference, involving researchers from a cross-section of the respective scientific community.

Community funding is intended to contribute to organisational costs, to the participation of speakers or teaching staff and to cover up to 100 % of expenses related to the participation of young researchers in the selected event. Support will also be made available to facilitate the participation of researchers who are nationals of one of the Member States and Associated States and who at the time of the event are active in laboratories or institutions outside Member States or Associated States.

Distinctions for high-level research work

Participants in the Descartes Prize will be researchers who have obtained outstanding scientific or technological results from European collaborative research.

Participants in the award for undergraduate students of higher education institutions and in the European Union Contest for Young Scientists will be legal entities, organising corresponding procedures at national level and young people whose projects have been selected in that frame.

Community funding will cover up to 100 % of costs related to the preparation and organisation of appropriate selection procedures, including the awarding of monetary prizes or equivalent recognition to the most deserving projects.

2. ACCOMPANYING MEASURES

The accompanying measures will comprise in particular:

— studies in support of the specific programme including the preparation of future activities, including on strategic issues arising in the course of the programme,

— exchanges of information, conferences, seminars, workshops, round tables, study panels,

— recourse to external expertise in particular for the purposes of the monitoring of the specific programme provided for in Article 5(1) of the fifth framework programme, the external assessment of the actions provided for in Article 5(2) of the fifth framework programme, the evaluation of indirect RTD actions and the monitoring of their implementation,

— dissemination, information and communication activities, including scientific publications and activities for the promotion and exploitation of results and the transfer of technology,

— the promotion of the identity and prestige of Marie Curie fellows, especially through the Marie Curie Fellowship Association,

— support in order to bring together potential participants for the purpose of elaborating a detailed work plan for a research proposal, in particular as a means of stimulating proposals in newly emerging fields of science and technology or in novel transdisciplinary approaches, or in fields where there is little history of transnational cooperation,

— support for schemes to provide information and assistance to research players, including SMEs.

3. COORDINATION ARRANGEMENTS

The Commission will endeavour to ensure complementarity between the indirect RTD actions under the programme, in particular by grouping them around a common objective, and to avoid duplication, while respecting the legitimate interests of proposers of indirect RTD actions.

As far as possible, coordination will also be ensured between actions under the specific programme and those carried out in:

— other specific programmes implementing the fifth framework programme,

— the research and training programmes implementing Council Decision 1999/64/Euratom of 22 December 1998 concerning the fifth framework programme of the European Atomic Energy Community (Euratom) for research and training activities (1998 to 2002) [1],

— other European research frameworks including Eureka and COST,

[1] OJ L 26, 1.2.1999, p. 34.

— other Community research-related instruments such as PHARE, TACIS, MEDA, the EIF, the Structural Funds, the EIB and programmes in the field of education, training and youth.

It will comprise:

(i) the identification of common themes or priorities, resulting in particular in:

— the exchange of information,

— the carrying out of work decided on jointly, entailing in particular the joint initiation of one of the procedures referred to in Article 9 of the rules for participation and dissemination;

(ii) the reassignment of proposals for indirect RTD actions between specific programmes or between a specific programme and a research and training programme.

ANNEX IV

SELECTION CRITERIA FOR THE IMPLEMENTATION OF THE PROGRAMME

The specific selection criteria for certain parts of this programme, which supplement those referred to in Article 3, are the following:

Supporting the training and mobility of researchers

Research training networks

Networks will be selected on the basis of the scientific merit of the collaborative research project on which the network is based and the quality and content of the network's training programme. Networks promoting interactions between different disciplines and those containing complementary teams as well as those involving meaningful connections with industry will be preferred over networks of otherwise equal merit, where these features are relevant to the network's training programme.

System of Marie Curie fellowships

Marie Curie individual fellowships

The selection criteria will include the research experience and the aptitude of the candidate, the impact and benefit of the training for the candidate, the research quality of the hosting research group, the ability of the host to meet the specific research training needs of the candidate, and the scientific and technological quality and relevance of the project.

For return fellowships, the selection criteria will include the results and research experience gained by the candidate during the initial fellowship, and the benefit to the new hosting research group.

Marie Curie industry host fellowships

The host institutions will be selected by the Commission. The fellows will subsequently be selected by the host institution. The Commission will establish detailed criteria, concerning notably qualification and equal access opportunities, to be followed by the industry host in the selection of fellows. Before a fellowship contract is offered, the selected fellows will have to be confirmed by the Commission.

The selection criteria will include the research quality of the host, the ability to provide adequate training, supervision arrangements and research facilities for the fellow, collaborative arrangements with other research organisations, and the scientific and technological quality and relevance of the proposed research area.

The fellows will be selected by the host on the basis of their scientific ability and on the compatibility of their research experience with the proposed research area.

Marie Curie development host fellowships

The host institutions will be selected by the Commission. The fellows will subsequently be selected by the host institution. The Commission will establish detailed criteria, concerning notably qualification and equal access opportunities to be followed by the development host in the selection of fellows. Before a fellowship contract is offered, the selected fellows will have to be confirmed by the Commission.

The selection criteria will include the relevance and impact of the competence which is sought, the compatibility of the new competence with the existing competence of the host, the appropriate size of the hosting research group in order to allow adequate working conditions for the fellows, and the international nature of the research activities of the hosting research group.

The fellows will be selected by the host on the basis of their scientific ability and on the compatibility of their research experience with the needs of the host.

Marie Curie experienced researchers' fellowships

The selection criteria will include the scientific excellence of the candidate, the scientific and technological quality and relevance of the project, and the relevance, impact and benefit of the fellowship for the parties involved.

Stays at Marie Curie training sites

The training sites will be selected by the Commission. The young researchers will subsequently be selected by the training site. The Commission will establish detailed criteria, concerning notably qualification and equal access opportunities to be followed by the training site in the selection of fellows. Before a fellowship contract is offered, the selected fellows will have to be confirmed by the Commission.

The selection criteria will include the research quality of the training site, the ability of the training site to provide research training, the evidence of past successful international doctoral training, and the appropriate size of the training site in order to allow adequate working conditions for the young researchers.

The young researchers will be selected by the training site on the basis of their scientific ability and on the suitability of the training site for their particular doctoral studies.

Enhancing access to research infrastructures

Transnational access to major research infrastructures

The criteria for selecting infrastructure to be supported will be the quality of the infrastructure, the quality of the research that external users are able to conduct there, the quality of the scientific, technical and logistic support provided for these external users, the scale of interest being demonstrated by new transnational users coming from countries where no similar infrastructure exists, and the cost-effectiveness of Community support.

Infrastructure cooperation networks

Infrastructure cooperation networks will be selected on the basis of their potential to enhance the access to and the service provided by research infrastructures that have a Community-wide interest and on the basis of the ability of the participants to provide an effective coordination of the network's activities.

Research infrastructure RTD projects

RTD projects will be selected on the basis of the scientific originality of the project, the quality of its research method and work plan, the potential of the project to improve infrastructure provision in Europe, and the degree of interest shown generally by infrastructure operators in the field and by the user community.

Promoting scientific and technological excellence

High-level scientific conferences

The criteria for the selection of scientific meetings to be supported will be the interest of the proposed topic for a wider scientific community, the quality of the proposed conference programme and its relevance for the training of the younger generation of European researchers.

Distinctions for high-level research work

Distinctions will be awarded on the basis of the scientific quality and the relevance of presented projects. Age and scientific background of participants will be duly taken into consideration.

Raising public awareness

To qualify for Community support, projects need to address an issue of broader European interest and involve high quality interaction between scientists and science communicators for the benefit of European citizens. Preference will be given to projects and initiatives involving at least three mutually independent partners from at least three different Member States or Associated States. Other projects may qualify for support if they promise to produce transferable results that could be used by actors not involved in the respective project.