COUNCIL DECISION

of 29 April 1992

adopting specific research programmes to be implemented by the Joint Research Centre for the European Economic Community (1992-1994)

(92/273/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITY

Having regard to the Treaty establishing the European Economic Community, and in particular Article 130q (2) thereof,

Having regard to the proposal from the Commission (1),

In cooperation with the European Parliament (2),

Having regard to the opinion of the Economic and Social Committee (3),

Whereas on 29 April 1992, the Council adopted a Resolution concerning the activities to be undertaken by the Joint Research Centre (4);

Whereas, by its Decision 90/221/Euratom, EEC (5), the Council adopted a third framework programme for Community activities in the field of research and technological development (1990-1994), specifying in particular the activities to be pursued concerning enabling technologies, the management of natural resources and the management of intellectual resources; whereas this Decision should be taken in the light of the grounds set out in the preamble to that Decision;

Whereas Article 130k of the Treaty stipulates that the framework programme is to be implemented through specific programmes developed within each activity, whereas specific Community programmes implemented by the Joint Research Centre (JRC) are carried out in parallel with the corresponding framework programmes;

Wheras the JRC, as set out in Decision 90/221/Euratom, EEC and as reaffirmed in the Council Resolution of 29 April 1992, is called on to contribute to the implementation of the framework programme, particularly in those fields where it has the necessary competence to offer impartial and independent expertise for the benefit of all Community policies; whereas such activity should form part of a long-term strategy resulting in the JRC playing a significant role in European scientific cooperation with a view to meeting the international competitive challenge;

Wheras the JRC can contribute to the realization of the said activity, particularly in the fields of industrial and materials technologies, measurement and testing, human capital and mobility and in the field of the environment;

Whereas the JRC should contribute to research with a view to identifying options for combating the greenhouse effect and the major industrial risks facing the Community and should contribute to international cooperation in the fields of energy and environment with regard to worldwide climatic change;

Whereas the JRC should continue to play a role in examining the issues relating to renewable energy sources, with particular regard to the harmonization of standards;

Whereas the JRC with its laboratories and installations can provide an efficient focal point for the training and mobility of researchers, in particular young researchers; whereas, to this end, collaboration should be encouraged with public laboratories, scientific institutions and industry in all the Member States;

Whereas, in the context of all these programmes, it is desirable that an assessment be made of the economic, social and, where appropriate, ethical impact as well as of any technological risks;

Whereas, pursuant to Article 4 of, and Annex I to, Decision 90/221/Euratom, EEC, the funds estimated as necessary for the whole framework programme include an amount of ECU 57 million for the centralized action of dissemination and exploitation of results, to be divided up in proportion to the amount envisaged for each specific programme;

Whereas Decision 90/221/Euratom, EEC provides that a particular aim of Community research must be to strengthen the scientific and technological basis of European industry and to encourage it to become more

(1) OJ No C 234, 7. 9. 1991, p. 9.
(2) OJ No C 13, 20. 1. 1992, p. 10; and Decision of 8. 4. 1992 (not yet published in the Official Journal)
(3) OJ No C 49, 24. 2. 1992, p. 16.
(4) OJ No C 118, 9. 5. 1992, p. 8.
(5) OJ No L 117, 8. 5. 1990, p. 28

competitive at international level; whereas that Decision also provides that Community action is justified where research contributes, *inter alia* to the strengthening of the economic and social cohesion of the Community and to the promotion of its overall harmonious development, while being consistent with the pursuit of scientific and technical excellence; whereas the programmes of the JRC should contribute to the achievement of these objectives;

Whereas the JRC could explore, and seek to benefit from, new perspectives for scientific and technical cooperation with certain third countries;

Whereas the Board of Governors of the Joint Research Centre plays a significant part, on one hand, in the administrative operation of the Centre and, on the other, in the implementation of its research programmes;

Whereas the Scientific and Technical Research Committee (CREST) has been consulted,

HAD ADOPTED THIS DECISION:

Article 1

1. The specific research and development programmes to be executed by the JRC for the Community in the fields of industrial and materials technology, measurement and testing, environment, as well as in the field of human capital and mobility, as defined in Annex I, including exploratory research activities, are hereby adopted for a period running from 1 January 1992 to 31 December 1994. They shall be implemented in parallel with corresponding specific programmes of the third framework programme.

2. The JRC may take part, as appropriate, in the centralized action for the dissemination and exploitation of knowledge resulting from Community research activities, as provided for in the framework programme and in close coordination with the Committee set up under that action.

Article 2

1. The funds estimated as necessary for the execution of the programmes amount to ECU 341,55 million.

2. An indicative allocation of funds is set out in Annex II.

3. Should the Council take a decision pursuant to Article 1 (4) of Decision 90/221/Euratom, EEC, this Decision shall be adapted accordingly.

Article 3

Detailed rules for the implementation of the programmes are set out in Annex III.

Article 4

1. The Commission shall each year before 31 March present to the European Parliament, the Council and the Economic and Social Committee a report on the implementation of this Decision.

2. The report referred to in paragraph 1 shall be accompanied by the observations of the Board of Governors of the JRC (hereinafter referred to as the 'Board of Governors'). The latter may also present through the Commission to the European Parliament, the Council and the Economic and Social Committee a separate report on any aspect of the implementation of this Decision.

Article 5

1. Research carried out by the JRC will be evaluated by a group of independent external experts set up by the Commission after consulting the Board of Governors. An evaluation report on the subject shall be established at the end of the programmes.

2. The evaluation report referred to in paragraph 1, accompanied by the opinion of the Board of Governors, shall be forwarded by the Commission to the European Parliament, the Council and the Economic and Social Committee.

Article 6

The reports referred to in Articles 4 and 5 shall be established having regard to the objectives set out in Annex I to this Decision and in accordance with Article 2 (4) of Decision 90/221/Euratom, EEC.

Article 7

1. The Commission, assisted by the Board of Governors, shall be responsible for carrying out the programmes and to this end shall call upon the services of the JRC.

2. The Commission, in cooperation with the Board of Governors, shall ensure periodical consultation with relevant Committees to ensure close coordination between Community shared-cost actions, corresponding national activities and those of the JRC in the same areas with the aim of ensuring a coherent approach.

Article 8

The Commission shall decide on the terms of reference of the Board of Governors.

Article 9

1. The Commission is authorized to negotiate, in accordance with Article 130n of the Treaty, international agreements with third country members of COST, in particular member countries of the European Free Trade Association (EFTA) and Central and Eastern European countries, with a view to associating them with the JRC activities.

2. The Commission, assisted by the Board of Governors, may, on the basis of the criterion of mutual benefit, request the JRC to execute projects with bodies and enterprises established in European third countries in the context of the specific programmes carried out by the JRC.

No contracting body based outside the Community and participating in an action undertaken within the arrangements of a programme shall benefit from the financing granted to the programme by the Community. Such a body shall contribute to the general administrative costs.

Article 10

This Decision is addressed to the Member States.

Done at Luxembourg, 29 April 1992

For the Council

The President

Luis VALENTE DE OLIVEIRA

ANNEX I

SCIENTIFIC AND TECHNICAL OBJECTIVES

The work of the JRC will be to conduct both basic/strategic and applied/target oriented research. It will be carried out as an integral part of the European science and technology system and following the basic principles of customer/contractor and subsidiarity, taking account of the following characteristtics:

— scientific and technical excellence,

— neutrality and independence,

— unique research facilities,

— openness to all Member States.

The basic and applied research in science and technology carried out by the JRC should meet the needs of the Community as a whole, its institutions and Member States with the objectives of:

— contributing to the strengthening of the scientific and technological basis for European industry and to the development of its international competitivity,

— contributing to the enhancement of the quality of the human and natural environment,

— contributing to the improvement of public safety aspects of new technologies,

— contributing to the reduction of scientific and technological disparities between the Member States,

— providing scientific and technical services to Community institutions and making JRC competences and scientific and technical installations available to public and private bodies.

The European dimension of its work must remain one of the fundamental strengths of the JRC. Its activity should be characterized by a multidisciplinary approach based on the large span of its competences. This multidisciplinarity shall be reflected in the choice of subjects of its institutes, thus ensuring its aptitude to take up new eventual challenges.

This large exposure should not, however, lead to an excessive dispersion of the activities which are undertaken. Without ignoring the expectations of its customers, the Centre and its management must have clear views on the proper scientific-technical orientations for the JRC and be able to keep a balance in order to ensure that the activities and contracts which are accepted can be executed at any time with the requisite level of competence, qualitatively as well as quantitatively.

Paragraphs 2A and 2C of Section I, 3A and 3B of Section II and paragraph 6 of Section III of Annex II of the framework programme form an integral part of the present JRC multiannual programmes.

The following presents a summary of the objectives of the programmes based on, and taking into account, the above elements.

I. ENABLING TECHNOLOGIES

Line 2: Industrial and materials technologies

The objective is to provide a contribution to the strengthening of European industry and its working environment by extending its scientific base through research and development work. The emphasis will be on the acquisition of the scientific and technical knowledge needed in order to establish standards and codes of good practice facilitating the transfer of technologies, and the harmonization of methods of measurement and testing.

Working environment

While keeping in mind the normal application of the subsidiarity principle, an important project selection criterion will be the orientation towards prenormative research. The Community will be called upon for further regulatory actions in areas such as health care and risk control, setting upper and lower limits (e.g. toxicology), standard evaluation methods and procedures for analysis, evaluation or risks to workers and

evaluation of the working environment in relation to the introduction of new technologies. Research should furthermore evolve in close collaboration with relevant national bodies in the Member States and with the propose European Agency for Safety and Health at Work.

Consequently, the JRC has selected the following research themes which match existing JRC skills with the objective of actively contributing to this work:

— toxicology and occupational health,

— occupational accident research,

— risk prevention.

Materials

With regard to materials, research will be oriented in particular towards the following areas which all have a strong prenormative dimension and represent important enabling technologies for a whole range of advanced industrial applications:

— alloys and intermetallics,

— ceramics and composites,

— coatings and processing,

— surface modification technology,

— new functional materials,

— non-destructive and evaluation techniques for advanced materials and components,

— information and data management.

These projects have the objective of helping to ensure that Community manufacturing industry has better access to a range of cost-effective, well-characterized advance materials are incorporated into high performance components. The activity also provides a focal point for the exchange of information on prenormative research on advanced materials. The research supported by unique facilities at the JRC will be conducted in close contact with manufacturing and user industries and, furthermore, aim at supporting wider European and international standardization efforts in the vast field of new materials.

Measurement and testing

The Central Bureau for Nuclear Measurements will continue its activities in both the nuclear and non-nuclear fields of reference materials and measurements, notably in the following areas:

— preparation, characterization and certification of samples,

— long-lived or stable isotope mass spectrometry,

— nuclear data measurements and evaluation,

— radionuclide metrology,

— applied radiation techniques.

Research also in the growing application of these specialized techniques to non-nuclear areas will capitalize on the existing experimental facilities including the particle accelerators. Activities in support of consumer protection policy will be continued. Furthermore, specific prenormative research activities will be continued in the fields of reliability of structures and on a lesser scale in renewable energies (photovoltaic), the latter activity being centred on the utilization of the existing European Solar Test Installation (ESTI). Research and reliability of structures will be refocussed on the use of the new reaction wall facility. In the context of a multinational programme, other significant activities with national participation are performed in the areas of life prediction of structures and the evaluation of their lifetime in service.

II. MANAGEMENT OF NATURAL RESOURCES

Line 3: Environment

The objective is to provide a contribution to the scientific knowledge, technical know-how and data needed by the Community, in particular to carry out its role with regard to the environment, as spelt out in Title VII of the Treaty, and with particular emphasis on prenormative work.

Special emphasis will be placed on, in addition to the evaluation of the effects of pollution from industrial and other sources, the assessment of environmental degradation caused by the use of energy in the home, transport and industry.

The JRC will contribute to the implementation of Community environment policy in three areas:

— participation in global change programmes,

— technologies and engineering for the environment,

— research on industrial hazards.

In the global change area, emphasis will be placed on strong cooperation with laboratories and institutes in the Member States and at international level. The JRC contribution will concern mainly:

— modelling and air pollution transport,

— air chemistry linked notably to the fate of biogenic and anthropogenic emissions,

— biosphere-atmosphere interaction,

— related applications of remote sensing, which will focus on the interactions between land and ocean surface parameters and climate. It is furthermore aimed at the development of remote sensing methods applied to critical components of global change.

Activities under the heading of technologies and engineering for the environment will concern mainly:

— environmental chemicals (migration and transformation in soil and their impact on ground water, harmonization of analytical methods for waste analysis, development of a mobile laboratory for in-field analysis of contaminants in soil and water, characterization of algalblooms, biomonitoring of environmental chemicals, trace metal exposures and human diseases, risk evaluation of environmental chemicals); these activities will notably be aligned towards chemical waste problems,

— the further development of techniques and systems to protect the environment, more specifically systems to prevent or mitigate process and equipment failures in the chemical and process industry,

— environment monitoring by remote sensing centred on advanced techniques: research, with development of techniques for applications of data derived from earth observation satellites, on environmental mapping and monitoring. Application of similar techniques as a contribution to global change programmes with emphasis on the monitoring of marine environment and on processes related to large-scale changes in terrestrial ecosystems. Development of a series of advance techniques, their technologies and engineering, for use in connection with the exploitation of new earth-observation systems, including microwave remote sensing, imaging spectroscopy and data processing.

The research on environmental technologies and engineering will underpin the contribution to the European Environment Agency with development of new instruments and trial techniques, to the harmonization of methods of measurement and to intercalibration.

The research and application of remote sensing techniques will be performed in close collaboration with the other agents and the European users.

Research on economic and social aspects will relate essentially to risk management and conventional industrial safety such as the development of decision support systems for plant safety, plant emergency management and territorial risk management.

The existing work on reliability, risk assessment and accident management will be strengthened.

Given the interdisciplinary character of safety-related problems and the research required for their solution, the above work, together with other related research work, should result in:

— the development and verification of reference calculation tools in those areas in which the complexity and nature of events to be analysed demand a harmonized approach in the Member States,

— addressing the accident prevention issue in the following areas: validation and further improvement of construction norms and standards, structural diagnostic and reliability and validation and harmonization of inspection procedures,

— providing response/rescue organizations with promptly available information and research results to help in an actual emergency, plus the data acquisition and management to facilitate post-accident analysis and mitigation. One area of particular concern should be the transportation of hazardous material.

In addition to research, development and support, the programme would provide education and training in each of the above areas and establish data collection, interpretation and distribution facilities where necessary.

These activities could become the point of contact and common interface for national organizations, in particular public authorities and industries, and for support to other Commission services, including DGs V and XI.

Line 6: Human capital and mobility

The objective is to provide a particular contribution to help increase the human capital in terms of research and technological development, which the Member States will be needing for the next decade, and to focus on the interaction and collaboration between teams and laboratories in all Member States and the JRC by providing training opportunities for researchers, in particular young researchers, setting up networks with the JRC, and encouraging the use of JRC experimental facilities by national teams.

The action of providing training opportunities for researchers embarking on careers in research and technological development is pursued by offering them temporary attachment to relevant JRC institutes and embedding them in research teams working through networks with national laboratories. Specific joint projects may be of a theoretical nature or such as call for the utilization of scientific experimental facilities at the JRC.

Within the networks, particular emphasis should be placed on the encouragement of exchange of researchers — junior as well as more experienced — between national laboratories and the JRC, allowing both for national staff to join the JRC for a limited period of time — up to three years — and for the JRC staff, in the same way, to join national laboratories and teams.

The network-oriented actions aim at consolidating existing agreements between national laboratories and the JRC and stimulating the creation of such new agreements with national laboratories around specific themes and calling for collaboration on specified joint projects throughout the networks of laboratories, including relevant JRC scientific institutes.

Joint projects to be executed within the networks should be defined in concert with all partners of the network concerned. The selection of researchers who should take advantage of the mobility and training opportunities should also be made in concert with the partners, taking into account the selection criteria defined in Annex III of the human capital and mobility programme.

Alongside the network agreements, access by interested national teams to JRC experimental facilities should be encouraged by offering appropriate hosting support for experiments of mutual interest between the national teams and the JRC.

Finally, the training opportunities for young researchers should be strengthened by provision and support for participation in JRC Euroconferences and similar activities conducted on JRC sites or elsewhere in the Community in collaboration with national research laboratories.

ANNEX II

AMOUNTS DEEMED NECESSARY FOR SPECIFIC PROGRAMMES WITH INDICATIVE BREAKDOWN OF EXPENDITURE FOR THE PERIOD 1992-1994

		(ECU million)
I. ENABLING TECHNOLOGIES		
Line 2: Industrial and materials technologies		
— Industrial and materials technologies		77,22 (1)
— Measurement and testing		91,08 (1)
II. MANAGEMENT OF NATURAL RESOURCES		
Line 3: Environment		
— Environment		148,50 (1)
III. OPTIMIZATION OF INTELLECTUAL RESOURCES		
Line: 6: Human capital and mobility		
— Human capital and mobility		24,75 (1)
	Total	341,55 (2)

(1) These totals include an amount equivalent to 6 %, which may be used for exploratory research.

(1) An amount of ECU 3,45 million not included in the ECU 341,55 million is reserved, as a contribution from the specific programmes of the present Decision, for the centralized action on dissemination and exploitation of results.

ANNEX III

RULES FOR IMPLEMENTING THE PROGRAMMES AND ACTIVITIES FOR DISSEMINATION AND EXPLOITATION OF THE RESULTS

1. The Commission, assisted by the Board of Governors of the Joint Research Centre, shall implement the programmes on the basis of the scientific and technical objectives and content described in Annex I.

2. The rules for implementing the programmes, referred to in Article 3, comprise research and technological development projects and accompanying measures.

   The projects shall be the subject of research and technological development performed in the relevant institutes of the Joint Research Centre (JRC).

3. The institutes of the JRC shall endeavour, whenever feasible, to execute the projects in proper collaboration and in concert with national research bodies in the Member States, taking into account as far as possible regional development aspects of research and technology activities and their potential socio-economic effects. Particular attention will be paid to associations with industry, notably with small and medium sized enterprises, in collaborative schemes around the projects. In the same way, research bodies established in third countries may also collaborate on projects in accordance with Article 9.

   Research projects open to international cooperation under the terms set out in the previous subparagraph shall include cooperation measures with international research laboratories and make provision for the exchange of researchers. Supplementary measures should allow cooperation with research laboratories and institutions located in the countries of Central and Eastern Europe.

4. Accompanying measures shall include:

   — the organization of seminars, workshops and scientific conferences,

   — activities of internal coordination, including the organization of particular internal centres, which ensure homogeneity of the approach and a unique common interface to the users of, and partners in the projects,

   — activities of specialized training with accent on multidisiplinarity,

   — a system for information exchange,

   — the promotion of the exploitation of research results,

   — the scientific and strategic independent evaluation of the performance of the projects and the programmes.

5. Knowledge gained through the realization of the projects will be disseminated on the one hand by the programmes themselves, and, on the other, by the centralized action described in the third subparagraph of Article 4 of Decision 90/221/Euratom, EEC.