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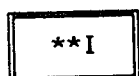
EUROPEAN PARLIAMENT

# SESSION DOCUMENTS

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A3-0046/91



## R E P O R T

of the Committee on Energy, Research and Technology on the proposal from the Commission to the Council for a decision adopting a specific research and technological development programme in the field of Human Capital and Mobility (1990-1994)

(COM(90) 0165 final - C3-0168/90 - SYN 270)

Rapporteur: Mr SANZ FERNANDEZ

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PE 145.218/fin.  
Or. ES

A Series: Reports - B Series: Motions for Resolutions, Oral Questions - C Series: Documents received from other Institutions (e.g. Consultations)



= Consultation procedure requiring a single reading



= Cooperation procedure (second reading) which requires the votes of a majority of the current Members of Parliament for rejection or amendment



= Cooperation procedure (first reading)



= Parliamentary assent which requires the votes of a majority of the current Members of Parliament

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By letter of 11 June 1990 the Council consulted the European Parliament, pursuant to Article 130q(2) of the EEC Treaty, on the Commission proposal from the Commission to the Council for a decision on a specific research and technological development programme in the field of Human Capital and Mobility (1990-1994).

At the sitting of 15 June 1990 the President of Parliament announced that he had referred this proposal to the Committee on Energy, Research and Technology as the committee responsible and to the Committee on Budgets and the Committee on Youth, Culture, Education, the Media and Sport for their opinions.

At its meeting of 22 May 1990 the Committee on Energy, Research and Technology appointed Mr Sanz Fernandez rapporteur.

At its meetings of 17 and 18 September 1990, 16 and 17 October 1990, 27 and 28 November 1990, 28 and 29 January 1991, 4 and 5 February 1991 and 27 and 28 February 1991 the Committee on Energy, Research and Technology considered the Commission proposal and draft report.

At the last meeting it adopted the draft legislative resolution unanimously.

The following took part in the vote:

La Pergola, chairman; Sälzer, vice-chairman; Adam, vice-chairman; Sanz Fernandez, rapporteur; Bettini, Desama, Garcia Arias, Goedmakers (for Ford), Görlach (for Herve), Pierros, Quisthoudt-Rowohl, Regge, Seligman, Vasquez Fouz (for West).

The opinions of the Committee on Budgets and the Committee on Youth, Culture, Education, the Media and Sport are attached.

The report was tabled on 1 March 1991.

The deadline for tabling amendments will appear on the draft agenda for the part-session at which the report is to be considered.

A

Proposal from the Commission for a Council decision adopting a  
specific research and technological development programme  
in the field of Human Capital and Mobility (1990-1994)

Commission text<sup>1</sup>

Amendments

(Amendment No. 1)  
Recital 5

Whereas, pursuant to Article 4 and Annex I of Decision 90/221/EURATOM, EEC, the amount deemed necessary for the whole framework programme includes an amount of 57 million ECU for the centralized dissemination and exploitation of results, to be divided up in proportion to the amount envisaged for each activity; whereas in view of the importance of this specific programme within the 'Human Capital and Mobility' action, the estimate of the financial resources needed by this programme is to be reduced by 4.93 million ECU, which amount is to be allocated to the centralized activities, in order to comply with the second sentence of Article 130p(2) of the Treaty;

Whereas, pursuant to Article 4 and Annex I of Decision 90/221/EURATOM, EEC, the amount deemed necessary for the whole framework programme includes an amount deemed necessary of 57 million ECU for the centralized dissemination and exploitation of results which is to be the subject of a decision of the Council in cooperation with Parliament; whereas in view of the importance of this specific programme within the 'Human Capital and Mobility' action, a financial contribution to the centralized activities is required; whereas this contribution is proportional to the financial capacity of this programme;

(Amendment No. 2)  
Sixth recital

Whereas this programme must be implemented by the Commission; whereas to help accomplish this, the Member States are bound, pursuant to Article 5 of the Treaty, to facilitate the achievement of its tasks where necessary, notably within a committee;

Whereas this programme must be implemented by the Commission; whereas to help accomplish this, the Member States are bound, pursuant to Article 5 of the Treaty, to facilitate the achievement of its tasks where necessary, notably within a committee; similarly, pursuant to Article 137, the Commission shall provide the European Parliament with any assistance it may need in order to exercise its advisory and supervisory powers

<sup>1</sup> For full text see COM(90) 0165 final - OJ No. C 174, 16.7.1990, p. 85.

(Amendment No. 3)  
Seventh recital

Whereas among the specific programme arising from the third Framework Programme, this programme is characterized by dealing essentially with the human resources available for R&TD activities and the enhancement of the European scientific and technological community and whereas this goal can be achieved effectively by activities intended to supplement the training of young researchers at a post-doctoral level;

Whereas the training of young European scientists is one of the priorities of the third Framework Programme as is the mobility of research staff and the creation of scientific and technological cooperation networks;

(Amendment No. 4)  
Seventh recital a (new)

Whereas any action designed to exploit the potential of the Community's intellectual resources must essentially be of benefit to the scientists and researchers themselves;

(Amendment No. 5)  
Seventh recital b (new)

Whereas a further objective of this programme should be the creation of a 'researchers' Europe' through the internationalization of their advanced training, enabling it to take place outside their Member State of origin;

(Amendment No. 6)

Eighth recital

Whereas a suitable application of the subsidiarity principle in this field implies the extending of training received by young researchers in their own country by enabling them, through traineeships made available by the Community to develop a research activity in a centre of excellence situated in another Member State;

Whereas a suitable application of the subsidiarity principle in this field implies the extending of training received by young researchers in their own country by enabling them, through traineeships made available by the Community to develop a research activity in a team or laboratory of excellence situated in another Member State;

(Amendment No. 7)

Ninth recital

Whereas in order to increase and improve the supply of host opportunities, it would appear useful also to provide for networks of associated centres of excellence and for possibilities for access to major installations;

Whereas in order to increase and improve the supply of host opportunities, it would appear useful also to provide for networks of associated teams or laboratories of excellence and for possibilities for access to major installations;

(Amendment No. 8)

Eleventh recital

Whereas it is appropriate to adopt decentralized methods of selecting candidates thereby closely associating centres of excellence with the implementation of this action;

Whereas it is appropriate to adopt decentralized methods of selecting candidates thereby closely associating teams or laboratories of excellence with the implementation of this action;

(Amendment No. 9)

Eleventh recital a (new)

Whereas the setting up of the network infrastructure is of crucial importance for the achievement of the objectives of the Community's R&TD policy, since it will consolidate and supplement the structuring effects of the thematic programmes;

(Amendment No. 10)  
Article 1

A specific research and technological development programme for the European Economic Community in the field of human capital and mobility, as defined in Annex I, is hereby adopted for a period of 5 years as from 1 January 1990.

A specific research and technological development programme for the European Economic Community in the field of human capital and mobility, as defined in Annex I, is hereby adopted for the period from the date of publication of this Decision in the Official Journal to 31 December 1994.

Amendment No. 11)  
Article 2

2. Of the specified funds of ECU 493 m the sum of ECU 4.93 m is deducted for the centralized action of dissemination and exploitation. The amount thus reduced to ECU 488.07 m includes expenditure on staff up to a maximum of 2%.
3. An indicative allocation of funds is set out in Annex II.

2. The amount of ECU 493 m estimated as necessary shall include costs relating to staff and a contribution to the costs of the centralized action of dissemination and exploitation.

3. An indicative allocation of funds relating to the implementation of the actions covered by this programme is set out in Annex II. The procedures for the dissemination and exploitation of the results are set out in Annex III. The rules relating to staff are set out in Annex II.

(Amendment No. 12)  
Article 5(3)

3. The reports shall be drawn up 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.

3. The reports shall be drawn up 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 and shall assess the coherence of the programme's implementation with the six major concerns set out in Annex II of Council Decision 90/221/Euratom, EEC (1).

(1) OJ No. L 117, 8.5.1990

(Amendment No. 13)

Article 6

- |  |   |
|--|---|
| <p>1. The Commission shall assure the implementation of the programme. It shall be assisted by an advisory Committee, hereinafter referred to as 'the Committee', composed of the representatives of the Member States and chaired by the representative of the Commission.</p> <p>2. A work programme shall be drawn up, and <u>updated as necessary</u>, setting out the detailed objectives and the measures to be taken, as well as the financial arrangements to be made for them. The Commission shall prepare calls for proposals on the basis of the work programme.</p> | <p>1. The Commission shall assure the implementation of the programme. It shall be assisted by an advisory Committee, hereinafter referred to as 'the Committee', composed of the representatives of the Member States and chaired by the representative of the Commission. <u>The European Parliament shall be informed of the deliberations of the Committee in a comprehensive and timely manner.</u></p> <p>2. <u>At the start of the programme</u>, a work programme shall be drawn up, and <u>be regularly revised</u>, setting out the detailed objectives and the measures to be taken, as well as the financial arrangements to be made for them. The Commission shall prepare calls for proposals on the basis of the work programme.</p> |
|--|---|

(Amendment No. 14)

Article 8

- |   |   |
|---|---|
| <p>1. The procedure laid down in Article 7 shall apply to:</p> <ul style="list-style-type: none"><li>- <u>the preparation and updating of the work programme referred to in Article 6(2);</u></li><li>- <u>the evaluation of proposals referred to in Point 4 of Annex III;</u></li><li>- <u>the measures to be undertaken to evaluate the programme;</u></li></ul> | <p>1. The procedure laid down in Article 7 shall apply to:</p> <ul style="list-style-type: none"><li>- <u>the contents and evaluation of the calls for proposals referred to in Annex III,</u></li><li>- <u>the participation in projects by non-Community organizations and enterprises referred to in Article 9,</u></li><li>- <u>any adaptation of the indicative allocation of funds set out in Annex II,</u></li></ul> |
|---|---|



Commission text

Amendments

- the measures to be adopted with a view to evaluating the programme,

- accompanying measures and arrangements for the dissemination, protection and exploitation of the results of the research, for encouraging basic research, the training of researchers and technological assessment carried out under the programme,

The Commission shall notify the European Parliament of draft decisions which, in the exercise of the Commission's implementing powers, are forwarded to the Committee.

2. The Commission may consult the committee on any matter within the scope of the programme.

2. Deleted

3. The Commission shall inform the Committee with regard to:

3. Deleted

- the progress of the programme;
- draft calls for proposals referred to in Article 6(2);
- accompanying measures referred to in point 2 of Annex III;

(Amendment No. 15)  
Article 9

Where cooperation with third countries and international organizations aiming at achieving the objectives of this programme requires legal undertakings between the Community and the third parties concerned, the Commission shall be authorized to negotiate, in accordance with Article 130n of the Treaty, international agreements laying down the terms of such cooperation.

Where cooperation with third countries and international organizations aiming at achieving the objectives of this programme requires legal undertakings between the Community and the third parties concerned, the Commission shall be authorized to negotiate, in accordance with Article 130n of the Treaty, international agreements laying down the terms of such cooperation.

Priority will also be given to cooperation with regional groupings and European countries not members of the European Community, in accordance with the guidelines agreed between the Council and the European Parliament (1).

(1) Drawn up during conciliation on the framework programme for Community activities in the field of research and technological development (1990-1994)

The negotiations for such international agreements may only be initiated with third countries who are already signatories of an Agreement with the Community which explicitly cites research and technological development or scientific progress as one of the objectives of cooperation.

Decisions on the conclusion of such agreements shall be adopted in accordance with the procedure referred to in Article 130q(2) of the Treaty.

Decisions on the conclusion of such international agreements shall be adopted in accordance with the procedure referred to in Article 130q(2) of the Treaty.

(Amendment No. 16)

Annex I

Scientific and technical objectives and content

This specific programme fully reflects the approach embodied in the third Framework Programme in terms of the scientific and technical goals and the underlying aims which it pursues.

Paragraph 6 of Annex II of the Framework Programme forms an integral part of the present specific programme.

Scientific and technical objectives and content

This specific programme fully reflects the approach embodied in the third Framework Programme in terms of the scientific and technical goals and the underlying aims which it pursues.

Paragraph 6 of Annex II of the Framework Programme forms an integral part of the present specific programme.

## Commission text

Unlike other specific programmes this programme does not pursue sectoral objectives through targeted research; its goal is to increase qualitatively and quantitatively the human resources in research and technological development across the board so as to satisfy the expected needs of the Member States in the coming years. This goal will be pursued by increasing the mobility of researchers, especially those at the post-doctoral or equivalent level, across the most advanced research centres in Europe.

More specifically, the aim is to train, through participation in high level research, about 5000 researchers over the five years of the programme. A close collaboration with the other Community general training programmes and more specifically those developed by the TFHR through the COMETT and EUROTECNET programmes is assured.

## Amendments

### I. Objectives

The central objective of the programme is to help to increase the human resources available for research and technological development which will be needed by the Member States in the coming years, thus assisting the creation of a European scientific and technical community. Such action should generate value added for the Community which will benefit all the Member States.

As a contribution towards strengthening human resources in Central and Eastern European countries, the programme shall be open to participation by these countries. The expenditure arising from the participation of scientists from those countries in this programme shall be covered from the funds allocated for cooperative projects with the countries of Central and Eastern Europe.

The action should be organized in a transversal manner in accordance with 'bottom-up' management, focused on two main aims: the training and mobility of staff and the formation of networks.

## Commission text

Fellowships will be granted to promising young researchers enabling them to spend a period (normally two years) in high level research centres in Community countries different from their own. In order to promote a balanced geographical distribution of human resources, in particular cases, fellowships may be prolonged by one year, to allow the researchers concerned to return to their home country and there begin to exploit their acquired skills.

A proper hosting system for fellows in high level research centres, including the Joint Research Centre of the EC, in networks of excellence and in special installations will be developed through the direct involvement of scientists, technologists and research institutions.

In order to strengthen this training system, the action carried out under the SCIENCE programme will be pursued in coordination with present new activities.

### Development of a high level decentralized Research Training System

High level research centres, laboratories and institutions with a recognised capacity to provide an added value to the training of guest researchers will be identified and chosen, according to the procedures outlined in Annex III.

## Amendments

In the pursuit of these objectives account will be taken of the experience acquired in the current SCIENCE, SPES and Major Installations programmes. The activities carried out as part of these programmes will be redirected and developed in accordance with the spirit of this programme and taking into account its central objective.

The activities will therefore be adapted so that they may play a more important role in the training and specialization of young European scientists attached to university laboratories and public or private research institutes.

The present specific programme will be developed by means of the following activities:

- the development of a Community system of research fellowships
- the creation and development of scientific and technical cooperation networks
- measures to promote the access of researchers to major scientific and technical institutes
- the launching of a Community system of 'R&D Euroconferences'.

## Commission text

The chosen centres, laboratories or institutions will indicate the areas of research where they would accept trainees, the number of trainees and the criteria they would adopt for selecting candidates and for monitoring their progress.

The centres, laboratories or institutions will be chosen on the basis of their scientific and technological excellence, on the relevance of their programmes to Community policy, on their capacity to attract good candidates and on their managerial capacity.

When the novelty or complexity of a research area so requires, networks of centres of excellence linking several centres, laboratories or institutions with complementary capacity and established in different Member States will be created and given the task of selecting, hosting and training researchers from various Member States, through participation in their joint research programmes.

The networks of centres of excellence will be chosen for participation in the training programmes on the basis of the originality of their approach, scientific excellence, relevance of topic and demonstrated added value deriving from their linkage.

## Amendments

The various activities will be carried out with a view to increasing the mobility of Community scientists, in particular young researchers at post-doctoral level. Scientists shall be considered as being at post-doctoral level if they have had at least six years' higher education and hold a doctorate or equivalent degree, or, if not, have had two years' research experience following a post-graduate course.

Young researchers at doctoral level may also benefit from the Community action carried out under this programme in the case of recently developed scientific disciplines in which there is a shortage of scientists at post-doctoral level.

Support under this programme may also be given to established researchers who need scientific training in a field other than their own in the context of the retraining requirements demanded by the rapid pace of scientific and technological change, or in order to apply their scientific knowledge in new areas where their participation is required.

The building-up of the infrastructure of networks envisaged under this programme is of crucial importance for the achievement of the objectives of Community R&TD policy, since it will consolidate and add to the structuring effects of the thematic programmes.

## Commission text

The chosen networks of centres of excellence will select, host and train a defined number of researchers from various Community Member States.

Training in advanced research requiring access to unique research facilities will be pursued. Organizations managing such facilities will be chosen on the basis of the quality, novelty, and uniqueness of the research programme and installations to which the trainees would have access, as well as on the number and quality of expected trainees. Special contributions to adapt, upgrade and operate the large installations for the benefit of guest researchers can be considered in addition to the support needed to cover the stipends of the trainees and the management costs.

Selection of the researchers participating in the training programme

According to the subsidiarity principle, efforts will concentrate on that period of a researcher's life when participation in the research work of a high level centre abroad, or in a European network of centres of excellence or access to a unique facility is most effective. This generally corresponds to the post-doctoral stage. In implementing this principle the difference in the terminology and significance of academic titles and practices in the different Member States will be taken into account.

Candidates would apply for a fellowship and be selected according to the procedures described in Annex III.

## Amendments

These networks must be extended to cover all the regions of the Community countries, with particular reference to the special needs of the peripheral areas and the at present least-favoured regions. This will facilitate the establishment in those regions of a highly qualified scientific and technological potential. To this end, encouragement shall be given to the setting up in such regions of new research teams centred on young scientists trained abroad.

The Human Capital activities are to complement rather than replace the training carried out under the specific programmes and other Community training activities such as COMETT, EUROTECNET, etc.

Most of the financial resources available will be devoted to the development of human resources. In accordance with this aim the researchers themselves will be the main beneficiaries of Community aid. Specific aid shall be granted to facilitate the execution of R&D projects carried out by researchers receiving Community aid in the host centres, the training or scientific and technological cooperation networks or in a major institute.

### II. Community activities and their funding

#### 1. The development of a Community system of research fellowships:

R&TD teams, laboratories or centres of recognized quality for the training or specialization of researchers, may receive separately or jointly (in the case of a network), young scientists in accordance with the procedures described in Annex III.

## Commission text

Criteria for selection will include: the curriculum vitae of the candidate, the scientific or technological interest of the intended programme, the relevance of the chosen area, the impact on cohesion and the relative availability of posts in the host establishment requested by the candidates.

Research areas covered by the training programme

The training programme will cover a very broad range of topics in accordance with its horizontal nature. It will include strategic research and oriented research related to the research areas foreseen in the first five activities mentioned in Article 1 of the Framework Programme as specified in its Annex II.

Coherence between the training programme and the activities carried out in the corresponding fourteen specific programmes will be assured.

## Amendments

To this end the Community shall grant financial aid to specific R&TD teams or laboratories or training networks consisting of a number of R&TD teams and laboratories covering a number of Community countries, to allow them to award research fellowships to researchers who are to undergo training or specialization there by participating in R&D work. In general these fellowships to be known by the name of a man or a woman who gave an important contribution to the development of the European Culture will be awarded for a period of two years for researchers at doctoral or post-doctoral level.

In certain cases and with a view to ensuring a balanced geographical spread of human resources, the two-year fellowships may be extended for a further year in order to enable researchers from less-favoured regions to return to those regions and to consolidate the knowledge acquired.

The fellowships for established researchers shall last a number of months (less than one year).

Commission text

Fundamental research in the exact and natural sciences, including mathematics: in agreement with the open nature of the programme the topics to be covered will not be defined 'a priori'. However, particular attention will be given to novel emerging multidisciplinary approaches and to approaches leading to a very broad spectrum of applications such as the science of complex non-linear systems, the structure of condensed matter, plasmas, the interaction between extremely intense radiation and matter, molecular recognition and self assembling structures.

Interfaces between basic science and technological applications; including by way of example engineering science, systems approaches, molecular and super molecular engineering, catalysis and membranes.

Amendments

The training of researchers shall consist in their participation in practical research projects carried out in the host teams or laboratories.

In order to prevent a 'brain drain' from the disadvantaged regions of the Community and to increase the effectiveness of training, Community financial support may also be granted to an experienced researcher (whether a university researcher or not) to enable him to carry out R&D projects in a centre located in one of the said regions so as to train a number of young scientists locally.

This visiting research professor shall be from a Community country other than that of the region concerned.

The purpose of this Community system of research fellowships is to complete and enhance the training activities carried out under other specific programmes, thus making it possible to build up the European scientific and technical community.



## Commission text

Networks of centres of excellence linking fundamental and applied research centres will be preferred for this multidisciplinary approach.

Human and social sciences: this action will concern essentially training in research relevant for the promotion of European competitiveness and performance, in particular economics, as well as the interaction between science, technology and society.

Problems such as the understanding and acceptance of science and technology by the public and the increasing interaction between natural science, mathematics and the human and social sciences will also be covered.

### Scientific and technological management

Decentralization and direct involvement of the scientific community will be key principles in implementing the programme.

The centres, laboratories, institutions, European networks of centres of excellence and large installations chosen on the basis of the criteria outlined above will be responsible not only for the selection of the candidates but also for the monitoring of their progress.

## Amendments

The purpose of the grant is to enable the researcher concerned to cover subsistence and moving expenses. Special expenditure incurred by the researcher concerned in the course of publishing the findings of the research may be reimbursed. The grant also includes a contribution to the research expenses in the host laboratory and the expenses incurred by the laboratory in administering the grant. If the researcher receiving the grant is a scientist from an industrial firm seconded to a public research laboratory in another Community country, the amount of the grant shall be limited to covering the incidental expenses arising from his secondment and a contribution to research expenditure in the host laboratory.

### 2. Assistance for the establishment and development of scientific and technical cooperation networks

The scientific and technical cooperation networks shall consist of at least five research laboratories or teams in at least three Community countries working jointly on one or more R&D projects.

The networks shall consist of both public and private research laboratories and teams in the Member States, to enable the best of them may exert as much influence as possible for the benefit of all the others. In particular, they shall encourage the interaction of different disciplines, the combining of various technologies and the application of techniques from one field in other fields.

## Commission text

The Commission will be responsible for the overall management and monitoring of progress for the whole programme.

## Amendments

If the innovative or complex nature of a scientific area so requires, encouragement shall be given to the setting-up of new networks consisting of research teams or laboratories with additional capacity.

In order to assist the consolidation and development of scientific and technical cooperation networks, Community funding shall cover expenses incurred in engaging researchers outside the network needed to complete the research project, incidental costs resulting from international cooperation (travel, accommodation and joint meetings), a contribution to research expenditure (experimental products, special purchases and the use of major institutes if required) and administrative costs.

If a researcher trained under this programme sets up a new research team in a disadvantaged region of the Community, Community aid may include funds to equip the team if it joins a scientific and technical cooperation network supported by the Community.

This specific programme will pursue and further develop the activities already being carried out under the SCIENCE and SPES programmes, including them into a broader activity and giving them a new direction, in order to take into account the principal objective of this specific programme. The SPES action will be expanded to include the human and social sciences.

3. Establishment of access to major scientific and technical institutes

The purpose of this activity is to promote access for Community researchers to major scientific and/or technical institutes of great importance already existing in the Community. In particular, it will be geared to increasing the training opportunities offered to European researchers by enabling them to become familiar with the use of such institutes in the execution of research projects.

A 'major institute' is understood as being an institute which requires substantial initial investment or a group of smaller institutes which have complementary capacities.

The Community financial aid granted to selected institutes will be designed to cover the costs arising from giving new scientists access to them (travel, subsistence expenses and user fees).

The aid will not be granted to purchase special equipment or construct infrastructure.

#### 4. European Conferences

The aim of this activity is to enable young scientists to take part in especially important high-level conferences - meetings of scientists on subjects at the cutting edge of scientific or technical knowledge, at which specialists present and discuss their work and ideas.

Participation in such conferences will enable promising young scientists to keep up to date with the advance of knowledge in a particular field.

The Community's financial support will cover the participation expenses (registration, travel and subsistence) of young scientists attending the conferences, with priority being given to those from less-favoured regions.

III Scientific and technological sectors

By virtue of its horizontal nature, the present programme will cover all scientific and technological sectors. Thus it may in particular deal with strategic projects and projects drawn up in connection with the research sectors referred to in the first five activities mentioned in Article 1 of the third Framework Programme which are specified in Annex II thereto.

Nevertheless, the training measures carried out under this programme shall not be directly determined by the objectives of other specific programmes. This means that, in the sectors covered by the other specific programmes, measures may be carried out under this programme, but such measures must be in addition to the specific (ciblée) training carried out under the specific programmes themselves and any duplication of effort must be avoided.

In accordance with the open nature of the programme, the subjects to be included in basic research in the exact and natural sciences, including mathematics will not be defined 'a priori'.

With regard to the social and human sciences, the programme shall essentially deal with training in important projects to improve or enhance European competitiveness, and bring about lasting economic development, in fields such as the economic and management sciences including environmental economics as well as the interfaces between science, technology and society. Attention shall also be given to problems connected with the general public's understanding and acceptance and the social control of science and technology.

(Amendment No. 17)  
Annex II

INDICATIVE ALLOCATION OF EXPENDITURES

Because of the horizontal nature of the actions covered by this specific programme, no breakdown by scientific and technological area or by means of implementation is proposed. The funding will be made available as required to finance actions and accompanying measures as outlined in Annex III.

Indicative allocation of expenditure, specifying, where relevant, the percentage to be allocated to expenditure related to the researchers themselves.

	<u>% of total</u>	<u>expenditure related to the researchers</u>
<u>1. Training</u>	58	90%
<u>2. Networks</u>	30	
<u>2.1 Development of networks</u>	24	75%
<u>2.2 Teams of young researchers</u>	6	-
<u>3. Access for researchers to major institutes</u>	10	
<u>4. European conferences</u>	2	

The establishment plan deemed necessary for the duration of the programme consists of 38 statutory posts (A, B and/or C). The Commission shall indicate each year in the preliminary draft budget the number of staff deemed necessary and the corresponding expenditure.

The budgetary authority shall decide on the appropriations.

(Amendment No. 18)

Annex III

**Rules for Implementing the Programme and Activities for Disseminating and Exploitation of the Results**

1. The Commission shall implement the programme on the basis of the content described in Annex I.
2. The rules for implementing the programme, referred to in Article 3, comprise training actions and accompanying measures.

**Rules for Implementing the Programme and Activities for Disseminating and Exploitation of the Results**

1. The Commission shall implement the programme on the basis of the content described in Annex I.
2. The rules for implementing the programme, referred to in Article 3, comprise training actions and accompanying measures.

Commission text

The training actions shall be the subject of contracts, primarily for postdoctoral training, through the distribution of fellowships and the financial support for access to the facilities of host organizations and participation in their research.

The accompanying measures shall consist in putting to use the resources permitting good technical execution, management and evaluation of the programme, and adequate dissemination and accessibility of the results of the training actions, and coordination, and increasing awareness of the participants in the programme.

3. Participants in the actions will comprise two categories:

- (i) individual recipients of training grants;
- (ii) institutions acting as hosts to grant recipients.

The individual grant recipients defined in (i) must be natural persons established in the Community. The institutions defined in (ii) must be legal entities established in the Community(1), such as research laboratories or industrial firms.

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(1) For the purposes of this programme, the European Organization for Nuclear Research (CERN), based in Geneva but with the major part of its installations on Community territory, may be a participant in the contracts.

Amendments

The Commission will be responsible for the implementation of the activities carried out under the programme, and will be assisted by the Committee described in Article 6.

I. DEVELOPMENT OF A COMMUNITY SYSTEM OF RESEARCH GRANTS

Participants in this action will comprise two categories:

- (i) individual recipients of training grants;
- (ii) laboratories or research teams acting as hosts to grant recipients.

The individual grant recipients defined in (i) must be natural persons established in the Community. The laboratories or research teams defined in (ii) must be themselves based within the framework of legal entities established in the Community(1), such as research centres, academic institutions, scientific foundations or industrial firms.

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(1) For the purposes of this programme, the European Organization for Nuclear Research (CERN), based in Geneva but with the major part of its installations on Community territory, may be a participant in the contracts.

Commission text

Natural or legal persons established in countries which have concluded cooperation agreements on scientific and technical research with the Community, may, on the principle of mutual benefit, participate in the actions undertaken in the framework of this programme. Such contracting parties will not benefit from Community financing. They will contribute to the general administrative costs.

4. The participants in the training actions shall be chosen on the basis of an annual procedure aimed at matching host organizations with applicant researchers.

The procedure shall comprise two successive calls for proposals (as cited in Article 6(2)), which will be published in the Official Journal of the European Communities.

The first call shall be addressed to those centres of excellence willing to host researchers. It shall be addressed to three categories of host organization:

- (i) individual centres of excellence;
- (ii) centres of excellence grouped to form intra-European networks linked for the purposes of a scientific and technical theme or a scientific and technical project;
- (iii) centres of excellence offering large-scale, unique research facilities.

The selection of proposals from host organizations shall be made by the Commission following consultation with the advisory Committee cited in Article 6(1).

Amendments

Natural or legal persons established in countries which have concluded cooperation agreements on scientific and technical research with the Community, may, on the principle of mutual benefit, participate in the actions undertaken in the framework of this programme. Such contracting parties will not benefit from Community financing. They will contribute to the general administrative costs.

The participants in the training actions shall be chosen on the basis of an annual procedure aimed at matching host organizations with applicant researchers.

The procedures shall comprise two successive calls for proposals (as cited in Article 6, (2)), which shall be published in the Official Journal of the European Communities.

The first call for proposals shall be primarily addressed to young researchers at a post-doctoral or equivalent level, to fill the available positions.

They shall forward their applications to at least three host organizations, which shall make the selection and submit it to the Commission. The criteria for selection of proposals shall include: the candidate's curriculum vitae and scientific record, the scientific or technological interest and quality of the intended project with respect to the Community research policy; and the impact on cohesion and the suitability and quality of the hosting research team

The second call for proposals shall be reorganized in accordance with the work programme indicated in Article 6, paragraph 2. It shall



outline the scientific domains

The second call for proposals shall be primarily addressed to young researchers at a post-doctoral level to fill positions made available following the first call outlined above in a country different from that of the trainee. The selection shall be decentralized and carried out by the centres of excellence concerned.

considered as having priority. It shall refer to three categories of host organizations

(i) individual research teams or laboratories;

(ii) research teams or laboratories as outlined in (i) grouped to form intra-European networks linked for the purposes of a scientific and technical theme or a scientific and technical project; such a network shall comprise at least five teams or research laboratories in at least three Member States of the Community;

(iii) institutions offering large-scale, unique research facilities.

In the cases outlined in (ii) and (iii), the Commission may provide support for adaptation of the host organization' capacity to receive extra researchers, through, for example, modifications to research equipment, travel between centres, exchange of materials, etc. The proposals received by the host organizations shall specify the number of candidates selected and their individual fields of scientific competence. Following approval by the Commission, they shall be published in the Official Journal of the European Communities. The Commission shall monitor the Community selection criteria, in particular as regards Community cohesion. It shall also verify the compatibility of the researchers selected with the scientific activity of the host laboratory or research centre.

The terms given to the recipients of Community training grants shall be equal for all (allowances, mobility expenses, social insurance), irrespective of the category of host organization.

Preference shall be given, all other things being equal, to candidates from the less-favoured regions of the Community.

The terms given to the recipients of Community training grants shall be equal for all (allowances, mobility expenses, social insurance), irrespective of the category of host organization and taking into account the cost of living in the host countries.

II. SCIENTIFIC AND TECHNICAL COOPERATION NETWORKS

The participants in scientific and technical development actions are networks of research laboratories undertaking joint research and development work. The number of Member States taking part in each network should be as high as possible. In no case should a network have less than five public or private laboratories from a minimum of three Member States. The association of recognized high-quality laboratories and promising laboratories situated in the less-favoured regions of the Community

will be particularly sought. It will allow researchers working in isolation in an advanced area to unite their efforts.

The selection of proposals shall be made in the form of a call for proposals which shall be open continuously. It shall be made by the Commission in agreement with the Programme Committee.

III. ACCESS TO LARGE INSTALLATIONS

The participants in the actions planned to favour access for researchers to large-scale facilities in the Community are those organizations having such facilities at their disposal or a group of smaller facilities which together have the capacity of a large-scale facility.

Community aid may be granted to:

- scientists wishing to have access to the facilities for whom travel, subsistence and cost of using the equipment will be covered.

The selection procedure for choosing organizations shall comprise of two successive calls for proposals which will be published in the Official Journal of the European Communities.

The first call for proposals shall be addressed to centres having large-scale scientific and technical facilities at their disposal. The proposals received in response shall be accompanied by expressions of interest from potential users.

The selection of proposals shall be made by the Commission assisted by the Committee cited in Article 6 paragraph 1.

The second call for proposals shall be published with the list of organizations pre-selected according to the previous procedure; it will aim to obtain joint equipment-user proposals.

The final selection shall be made by the Commission with the help of the Committee cited in Article 6 paragraph 1.

The extent of Community support will be based on the quality and unique features of the installation; interest shown by potential users; cost/benefit ratio of Community support; value for the Community in terms of importance of the installation in respect of the Community's overall scientific and technical potential.

#### IV. EUROCONFERENCES

The participants in the action for the development of Euroconferences shall be organizations, scientific associations or learned societies organizing a series of high level meetings for debating the latest work undertaken in advanced scientific or technical areas. Specific training of promising young researchers allowing them to become familiar with the latest developments in the sector will also be carried out.

The procedure shall comprise a call for proposals defining the priority scientific areas selected for the work programme as cited in Article 6 paragraph 2.

The selection of proposals will be made by the Commission which will draw up a plan of measures to be taken which will be submitted to the Committee cited in Article 6 paragraph 1.

5. The dissemination of the results of the training actions shall be carried out within the specific programme as well as through the centralized action of dissemination and exploitation, pursuant to the Decision referred to in Article 4, third paragraph, of Decision 90/221/Euratom, EEC.

V. DISSEMINATION OF THE RESULTS

The dissemination of the results of the training actions shall be carried out within the specific programme as well as through the centralized action of dissemination and exploitation, pursuant to the Decision referred to in Article 4, third line of Decision 90/221/Euratom, EEC.

DRAFT LEGISLATIVE RESOLUTION  
(co-operation procedure: first reading)

embodying the opinion of the European Parliament on the proposal from the Commission to the Council for a decision adopting a specific research and development programme in the field of Human Capital and Mobility (1990-1994)

The European Parliament

- having regard to the Commission proposal to the Council (COM(90) 0165 final - SYN 270)<sup>1</sup>,
  - having been consulted by the Council pursuant to Article 130q(2) of the EEC Treaty (C3-0168/90),
  - having regard to the report of the Committee on Energy, Research and Technology and the opinions of the Committee on Budgets and the Committee on Youth, Culture, Education, the Media and Sport (A3-0046/91),
1. Approves the Commission proposal subject to Parliament's amendments and in accordance with the vote thereon;
  2. Calls on the Commission to amend its proposal accordingly, pursuant to Article 149(3) of the EEC Treaty;
  3. Calls for the conciliation procedure to be opened if the Council should intend to depart from the text approved by Parliament;
  4. Asks to be consulted again should the Council intend to make substantial modifications to the Commission proposal;
  5. Calls on the Council to incorporate Parliament's amendments in the common position that it adopts in accordance with Article 149(2)(a) of the EEC Treaty;
  6. Instructs its President to forward this opinion to the Council and Commission.

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<sup>1</sup> OJ No. C 174, 16.7.1990, p. 85

**B**  
**EXPLANATORY STATEMENT**

**I. INTRODUCTION**

1. The proposal for a Council decision adopting a specific research and technological development programme in the field of human capital and mobility has its predecessors in the Stimulation and Science programmes. Both those programmes were based on the creation of scientific and technological cooperation networks involving laboratories and research teams and, to a lesser extent, training activities.

These activities are a good example of actions permitting the creation of links between Member States and generating considerable value added when carried out at Community level.

2. Parliament has in the past expressed its conviction of the importance of this programme, in terms of its potential contribution to the cohesion of the Community and its value as an instrument for raising the standard of scientific training in all the Member States.

3. In its resolution on the third framework programme (in the Chiabrando report), Parliament stressed the central importance of heading 6, for which it called for an allocation of 1300 m ECU. In particular, Parliament expressed its strong interest in encouraging the training of young researchers in universities and research centres as a priority objective.

4. Annex II of the framework programme defines heading 6 as being 'organized ... around two main strands: training and mobility of research staff, and the building-up of networks'.

**THE COMMISSION PROPOSAL**

5. The Commission proposal has a single objective: the training of 5000 researchers at postdoctoral level. The role of the networks is reduced to that of an instrument for furthering the fundamental objective of training young scientists.

6. Nevertheless, the text of the third framework programme<sup>1</sup> states quite clearly that 'the building-up of an infrastructure of networks ... is of crucial importance for the achievement of the objectives of the Community's research and technological development policy in consolidating and complementing the structuring effects of thematic programmes'.

7. On the subject of the creation of the networks, the framework programme further states: 'The networks will bring together public and private sector laboratories and research teams from the Member States, so that they can all benefit from the experience acquired by the best amongst them'. It is thus quite clear that the networks are not merely an instrument for training, but also an end in themselves. The setting up of networks makes it possible to create a Europe-wide web of scientific contacts and helps reinforce cohesion in the Community. This point is also clearly made in the Council decision: 'The networks shall extend to all the regions of the Community, particularly

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<sup>1</sup> Council decision 90/221/Euratom, EEC, OJ No. L 117, 8 May 1990.

bearing in mind the special needs of peripheral regions and regions that are currently lagging behind. Highly-qualified scientific and technical potential will thus be built up in these regions'.

8. The Commission proposal makes no reference to advanced training schemes which would enable established researchers to acquire expertise in new areas or to catch up with scientific and technological developments.

9. The proposal also fails to mention the training of young researchers at predoctoral level (i.e. postgraduate students), which is likely to be necessary in some cases, for instance in new research fields, in order to expand the research base and increase the pool of human capital for R&D in both qualitative and quantitative terms.

10. The Commission proposal refers to 'centres of excellence', a term which the rapporteur feels could lead to misunderstandings. The rapporteur considers that young researchers should be trained in teams of recognized scientific quality in the Community; the framework programme, however, nowhere uses the term 'centres of excellence', referring, rather, to 'laboratories and research teams', a formulation which the rapporteur would prefer to adopt. In addition, it is obviously possible for both high-quality and lower-quality teams to exist in the so-called 'centres of excellence', and, conversely, for high-quality teams to be found in establishments which do not have an overall reputation for 'excellence'.

## II. OUTLINE OF A NEW PROGRAMME IN THE FIELD OF HUMAN CAPITAL

11. The Commission proposal contains a highly positive innovation, introduced in the third framework programme, which should continue to be stressed: the training of young scientists.

However, despite this most desirable measure, there are also a large number of omissions, in view of which the Commission proposal cannot be considered acceptable in its present form. The rapporteur considers that a new text should be drawn up, to be more in line with the objectives and principles set out in the technical annex to the third framework programme for the programme in the field of human capital and mobility.

### BASIC PRINCIPLES

12. The programme in the field of human capital should be structured around two main objectives:

- training and mobility of researchers;
- development of scientific and technological cooperation networks.

13. Under a programme aimed at improving the realization of intellectual potential in the Community, the main beneficiaries of Community funding should be the researchers themselves. The financial resources of the programme should not be used as an indirect mechanism for facilitating the purchase of materials or for financing laboratory infrastructure, as suggested in the evaluation report of the EC Research Training Fellowship Scheme<sup>2</sup>.

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<sup>2</sup> Research Evaluation. Report No. 42 EUR 12931 EN



Measures taken in the field of human capital should also contribute to the reinforcement of cohesion in the Community.

14. Actions in the field of human capital should complement, and not substitute, actions in the field of training under the specific programmes (according to the evaluation report, the latter actions should be extended to cover all the programmes, while avoiding overlaps).

#### SCIENTISTS CONCERNED

15. Priority should be given to the training of young researchers at postdoctoral level; a postdoctoral researcher should be defined as any scientist who possesses a doctorate, or, if not, has two or three years' research experience following completion of a postgraduate course. A young scientist fulfilling these conditions will be ideally placed to make the most efficient possible use of the training opportunities offered by the Community programme. According to the evaluation report on the SCIENCE and Stimulation programmes<sup>3</sup>, the postdoctoral training of European scientists takes place in many cases in the US, where many of the researchers subsequently settle down. The report recommends that researchers should receive support enabling them to carry out their postdoctoral training in Europe.

16. Given the absence of an attractive Community-wide structure for postdoctoral training, the Member States are, in practice, financing the training of scientists who will later be employed in the US.

The rapporteur considers that we cannot permit ourselves this luxury and that steps must be taken at Community level to confront the problem.

17. The programme should also provide support for established researchers who require a specific training in a field other than their own in the context of the retraining demanded by the rapid pace of scientific and technological change, or in order to apply their scientific knowledge in new areas where their participation is required.

18. The programme should also be open to young scientists at a less advanced (predoctoral) level, as their participation may, in some cases (eg. in newly developed disciplines), be necessary for the improvement and expansion of human capital in the Community.

19. The programme will make it possible to raise the level of existing researchers, but it will have only a very limited impact as far as increasing their numbers is concerned.

The rapporteur suggests that consideration could later be given to Community action to confront the problem of the training of scientists at predoctoral level, in such a way as to permit a quantitative increase in the human resources available for the growing needs of our industries and research centres over the coming decades.

A specific activity of this type could be carried out by the Human Resources Task Force. This would fill the gap currently existing in the Community's

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<sup>3</sup> Research Evaluation. Report No. 41 EUR 12854 EN

training programmes in the area between first-degree studies (ERASMUS, COMETT, etc.) and postdoctoral training (covered essentially by the framework programmes).

20. In order to achieve the above objectives, the Human Capital programme will undertake the following activities:

- (i) Training, on the basis of financial support to scientists to enable them to work in teams or laboratories (or networks of teams or laboratories) for a period of two years at predoctoral or postdoctoral level or, in the case of established researchers, for a period of several months and less than one year.

In certain cases and with a view to ensuring a balanced geographical spread of human resources, the two-year grant could be extended for a further year to enable researchers to return to their country of origin and consolidate the knowledge acquired.

Researchers will be trained on the basis of participation in specific research projects in the host teams or laboratories.

To take a particular instance, a researcher or research engineer might be sent by an industrial company to a public research institute. He would continue to be paid by his employer, while the Community would have to contribute a limited sum towards his research expenses in the host institute and his moving expenses.

Another instance - this time having a multiplier effect - might be that of an outstanding researcher or visiting professor who would be granted financial support to visit another Member State to train young researchers on the spot. Such a measure would have the great advantage of helping to prevent the flight of talent from certain regions.

- (ii) Support for the development and consolidation of scientific and technical cooperation networks, which would bring together a minimum of five research laboratories or teams from at least three different Member States for the joint development of one or more research projects.

This type of action would involve the continuation and updating of the activities initiated under the SCIENCE programme (twinings and joint operations), while extending scientific and technical cooperation within the Community on the lines set out in the third framework programme. Community funding would cover the expenses required for the contracting of researchers from outside the network and for the conduct of the research project, the marginal costs arising from international cooperation (e.g. of travel and subsistence expenses, costs of joint meetings), part of the research expenses (e.g. for experimental products, special purchases, or the use of major institutes where this is necessary) and administrative costs.

A particular case here might be that of a young scientist originating in a less-favoured region who, having received training under the programme, returned home to set up a research team as part of the network. In this case, the equipment required for this new team would be funded under the Human Capital programme.

- (iii) Promotion of access for scientists to major scientific and technical institutes, enabling them to make use of their facilities for their research projects.

The Community's financial contribution will be devoted entirely to covering the costs arising from the access given to scientists using the institutes for the first time (travel and subsistence expenses, user fees and administrative expenses).

Grants should not be made under this heading for the purchase or construction of infrastructures.

- (iv) European conferences

The aim here is to enable young scientists to take part in especially important high-level conferences - meetings of scientists on subjects at the cutting edge of scientific or technical knowledge at which specialists present and discuss their work and ideas.

Participation in such conferences will enable promising young scientists to keep up to date with the advance of knowledge in a particular area.

The Community's financial support will cover the participation expenses (registration, travel and subsistence) of young scientists attending the conferences, with priority for those from less-favoured regions.

### III CONCLUSIONS

21. In accordance with the ideas and principles outlined above, the rapporteur proposes the following indicative breakdown of expenditure by type of action, specifying where relevant the percentage to be allocated to expenditure related to the researchers themselves:

	<u>% of total</u>	<u>expenditure related to the researchers</u>
1. Training of researchers in teams or laboratories or networks of teams or laboratories.....	58	90%
2. Networks.....	30	
2.1 Development and consolidation of networks	24	75%
2.2 Teams of young researchers	6	-
3. Access for researchers to major institutes.....	10	
4. European conferences.....	2	

22. Emphasis should be laid on the priority given to training the researchers the Community will need in the near future, to offset the deleterious effects of the current flight of talent from the Community.

23. Also to be stressed is the renewal of the policy of establishing and consolidating scientific and technical cooperation networks at team and laboratory level, an aspect which is not included in the Commission proposal but is an integral part of the creation of a Europe-wide web of scientific contacts.

24. Finally, a substantial part of the funds allocated would go to support the actual researchers, who make up the human capital which it is our aim to develop.

O P I N I O N

(Rule 120 of the Rules of Procedure)

of the Committee on Budgets  
for the Committee on Energy, Research and Technology

Draftsman: Mr Christos PAPOUTSIS

At its meeting of 21 September 1989 the Committee on Budgets appointed Mr PAPOUTSIS draftsman.

At its meeting of 7 November 1990 it considered the draft opinion.

At the latter meeting it adopted the conclusions as a whole unanimously.

The following were present for the vote: von der Vring, Chairman; Lamassoure, first Vice-Chairman; Cornelissen, second Vice-Chairman; Papoutsis, draftsman; Arias Cañete, Böge, Colajanni, Elles, Forte, Holzfuss, Kellett-Bowman, Langes, Lo Giudice, Miranda da Silva, Samland and Theato.

## Preliminary remarks

The virtually simultaneous presentation of the legislative proposals on the specific programmes under the 1990-1994 framework programme (Decision 90/221/EEC/EURATOM) and the identical wording of the financial provisions mean that they can be considered jointly and that decisions can be taken on the legislative proposals as a whole. This opinion refers to the specific programme in the field of human capital and mobility (1990-1994).

## Introduction

1. On 23 April 1990, the Council adopted Decision 90/221/EURATOM, EEC<sup>4</sup>, concerning the framework programme of Community activities in the field of research and technological development (1990 to 1994). Article 1 of the decision provides for the carrying out of the following activities:

- enabling technologies:
  1. information and communications technologies;
  2. industrial and materials technologies.
- management of natural resources:
  3. environment;
  4. life sciences and technologies;
  5. energy.
- management of intellectual resources:
  6. human capital and mobility.

The amount deemed necessary for Community financial participation in the entire programme is 5700 million ECU.

2. On 11 June 1990, 30 September 1990 and 22 October 1990, the Council consulted the European Parliament on the fifteen specific programmes. The proposal on centralized action was not submitted for consideration.

This virtually simultaneous presentation of the new proposals meets the wishes expressed by the Committee on Budgets (see PE 134.413/fin.). This situation can create the conditions necessary to measure the effects of a series of legal instruments against the financial reality defined by the financial perspective and the budgets concerned.

3. During consideration of the framework proposal for the framework programme (1990-1994), and also throughout the conciliation procedure up to the adoption of the decision by the Council, the Committee on Budgets had put forward a number of observations.

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OJ No. L 117, 8.5.1990, p. 28

Its observations concerned, in particular, the financing of the new framework programme, the period which covered financing of both framework programmes (1987-1991 and 1991-1992) and the procedures for implementing the new framework programme, with particular reference to the question of commitology.

#### The Commission proposals

4. The Commission's approach consists of presenting a harmonized text concerning the financial provisions for each specific activity together with annexes giving an indicative breakdown of the amount deemed necessary and the procedures for implementing each programme. The Commission also devotes an annex specific to each programme solely to the aims and the scientific and technical content.

5. As regards the amount estimated as necessary for each specific activity (Article 2), the Commission proposes a double levy:

- a single-rate levy of 1% on the amount estimated as necessary for each specific programme earmarked for the financing of the centralized dissemination and exploitation of the results;

and on the remainder,

- a variable-rate levy for staff costs. This second levy varies between 2% and 16% according to the specific activity.

6. As regards the 1% levy, Article 4 of the framework decision 90/221/EEC provides for an amount 'deemed necessary of 57 million ECU', which represents in fact the 1% of the amount deemed necessary for the framework programme as a whole. However, while this proposal has the merit at first sight of constituting the amount of 57 million ECU, it does not take account of a number of considerations:

- The total appropriations for the specific activities are not of the same amount, so the impact of the 1% in each of them will not necessarily be the same.
- It is not stipulated in the framework decision that each specific programme must contribute on the basis of a single rate to the financing of the centralized action. The framework decision merely states that the 57 million ECU are drawn 'proportionally' from each activity (see Annex 1, footnote 2).
- It is not stipulated that this levy must precede the levy for staff costs.
- The profile of the partners of each programme is different, and therefore the framework of the implementation of the projects may vary.
- The knowledge acquired on each programme is different, and the means of disseminating it may take various forms.

There is therefore no reason to assume that the single-rate levy meets the requirements of each programme.

7. On the other hand, the Commission has not yet submitted its proposal on the centralized action. Is it then conceivable to start adopting all the specific programmes without seeking to settle, for example, matters relating to intellectual property or industrial property?

On the basis of what guarantees will the partnership which will form around each programme ensure dissemination of the results? And how will the Community dimension of each programme be preserved in the absence of information on the dissemination of the results obtained by its implementation?

8. A second point to be raised concerns the percentage earmarked for staff costs.

The Commission proposes a variable-rate levy for this expenditure. On the basis of the financial statements accompanying the various proposals, the implementation of the framework programme (1990-94) will involve a total staff complement of 1019 persons, regardless of category.

This establishment plan for the framework programme (1990-94) will consist partly of staff to be redeployed from the programmes implemented under the framework programme (1987-91) and partly of newly-recruited staff.

9. Experience shows that the demand for staff is a function of the demand for commitment appropriations for each activity.

How, then, does the Commission intend:

- to coordinate demand for staff for each new specific activity in the light of the real staff requirements still presented by earlier activities which will in fact be acting as a reserve supply and, in addition, respect the rules of transparency in the management of the appropriations concerned?
- to inform the budgetary authority of the actual allocation of staff and the budgetary impact, when the implementation of the new activities does not rule out implementation of the projects under the exceptional procedure which may be justified on the scientific basis of several specific activities?

Does the Commission intend to perpetuate the phenomenon of osmosis already referred to in respect of the specific activities arising from the previous framework programme (1987-1991)? (See in this connection PE 143.199).

10. The implementation of these specific activities involves some innovations as regards management, and the Commission, aware of this new situation, has already deemed it necessary that a study be made of this subject.



At the same time, the Commission had promised to 'inform Parliament' of the findings of that study. That study, which would be very useful for the budgetary authority, has not yet been published. However, the Commission has agreed that the question of staff is one of the points, but not the only one, which would require correction and rationalization measures.

11. Another observation concerns the rules for implementing each specific activity set out in Annex III to each proposal.

The Commission proposes the introduction of an exceptional procedure to make the decision-making process concerning the choice of projects more flexible. This exceptional procedure may call on a sum which may in no case exceed 15% of the amount deemed necessary.

The introduction of this new procedure, which will have to co-exist with the ordinary procedure as well as with the continuation of the activities developed under the specific programmes arising from the framework programme (1987-1991), raises certain questions, namely:

- how does the Commission intend to maintain the partners' interest in the previous activities since there are still appropriations in the budget to be committed for the earlier activities?;
- how can the Commission ensure that there will be no abuse in using this exceptional procedure instead of the ordinary procedure?;
- how does the Commission intend to budgetize projects selected on the scientific basis of several specific activities?

12. The Commission is not sufficiently clear about how it intends to coordinate the timetable of tenders, selection of projects and conclusion of contracts in the context of the ordinary procedure with consideration of the proposals submitted in the context of the exceptional procedure. This situation may well create bottlenecks in the decision-making process as regards the choice of projects and their management. It is important to stress the growing volume of requests submitted to the Commission by the partners and, consequently, to consider whether the administrative deadlines governing the selection of projects do not hamper the optimum allocation of the appropriations approved in the budget. The Commission does refer in Annex III to the drawing up of a vade mecum, but to date, this vade mecum has not been forwarded to the budgetary authority.

13. While the experience acquired argues in favour of the introduction of innovative procedures, they will have a positive impact on Community research only if they preserve the cardinal objectives of that research and also ensure optimal allocation of the financial resources provided for.

14. The new framework programme is a year behind schedule as regards the amounts provided for in the financial perspective and, while part of the financial year 1991 will be devoted to adopting the various decisions, the Commission's firm determination to ensure the vital progression of one of the most important new policies (see PE 140.148) becomes an empty statement.

15. Another observation concerns commitology. The fears expressed by the Committee on Budgets in its opinion (see PE 134.413/fin.) are confirmed. When a specific activity concerns the industrial sector, the committee involved is of type III. However, in the conciliation procedure for the adoption of the framework programme (1990-1994) and, in particular, in its letter to the President of Parliament (see PE 140.148), the Commission had stated perfectly clearly the merits of the type I committee (i.e. a purely consultative committee) which confers the greatest speed and efficiency on the decision-making process.

The question is whether that efficiency can be guaranteed, for example, in the case of the selection of projects under the exceptional procedure, which is proposed precisely in order to strengthen the operational aspect of each specific activity in the case of activities involving a type III committee.

It may be pointed out that, in the recent decisions on provisional measures concerning the unification of Germany, the Council agreed to replace a type III by a type IIa committee.

16. The Commission gives no details concerning the choice to be made where a project subject to the exceptional procedure concerns two specific activities which are not covered by the same type of committee. In such a case, which of the two types of committee will be giving its opinion?

17. A final observation concerns the evaluation of the programmes. The research and technological development policy constitutes one of the objectives laid down in the Single Act.

The European Parliament has stressed on many occasions the need to develop this policy while drawing attention to the increased funding requirements. This position will be best strengthened on the basis of the results obtained, with particular regard to sound financial management and increased profitability of the funds allocated to this policy.

18. In its proposals (Article 5), the Commission raises the matter of the evaluation of the programme but nevertheless refrains from providing any additional information regarding the criteria to be taken into account for that evaluation.

It is important for the budgetary authority, particularly where a multiannual activity is involved, to have figures showing trends in the performance indicators interpreting analyses made on the basis of cost-effectiveness, and also on the basis of the indicators which measure the cost of non-research.

Experience shows that there is no pattern to the participation of the Member States in the various activities. A thorough analysis of the cost of non-research is vital because of the complementarity of this policy with other Community policies sometimes acting as infrastructure.

## Conclusions

19. The Committee on Budgets accordingly recommends the adoption of the proposal, with the following reservation:

It asks the Committee on Energy, Research and Technology:

to ascertain, with the Commission, whether measures have been taken on the basis of the funds available to ensure, at administrative level, a rational decision-making process as regards selection of projects and their management as well as on the provisions concerning the evaluation of all the specific programmes, in accordance with Article 5 of framework decision 90/221/EURATOM, EEC.

The Committee on Budgets also asks the Committee on Energy, Research and Technology to take account of the following amendments:

Commission text

Amendments

Amendment No. 1

Fifth recital

Whereas, pursuant to Article 4 and Annex I of Decision 90/221/EURATOM, EEC, the amount deemed necessary for the whole framework programme includes an amount of 57 million ECU for the centralized dissemination and exploitation of results, to be divided up in proportion to the amount envisaged for each activity; whereas in view of the importance of this specific programme within the 'Human Capital and Mobility' action, the estimate of the financial resources needed by this programme is to be reduced by 4.93 million ECU, which amount is to be allocated to the centralized activities, in order to comply with the second sentence of Article 130p(2) of the Treaty;

Whereas, pursuant to Article 4 and Annex I of Decision 90/221/EURATOM, EEC, the amount deemed necessary for the whole framework programme includes an amount deemed necessary of .57 million ECU for the centralized dissemination and exploitation of results which is to be the subject of a decision of the Council in cooperation with Parliament; whereas, in view of the importance of the specific programme within the 'Human Capital and Mobility' action a financial contribution to the centralized activities is required; whereas this contribution is proportional to the financial capacity of the programme and corresponds to the effective demand for the results of research from the socio-economic operators in all the Member States;

Amendment No. 2

Article 2

2. Of the specified funds of 493 million ecus, the sum of 4.93 million ecu is deducted for the centralised action of dissemination and exploitation. The amount thus reduced to 488.07 million ecus includes expenditure on staff up to a maximum of 2%.
  3. An indicative allocation of funds is set out in Annex II.
2. The amount of 493 million ecu estimated as necessary shall include costs relating to staff and a contribution to the costs of the centralized action of dissemination and exploitation.
  3. An indicative allocation of funds relating to the implementation of the actions covered by this programme is set out in Annex II. The procedures for the dissemination and exploitation of the results are set out in Annex III. The rules relating to staff are set out in Annex II.

Amendment No. 3

Annex II

After the heading 'Indicative breakdown of expenditures', add the following new paragraph:

The establishment plan deemed necessary for the duration of the programme consists of 38 statutory posts (A, B and/or C). The Commission shall indicate each year in the preliminary draft budget the number of staff deemed necessary and the corresponding expenditure.

The budgetary authority shall decide on the appropriations.

Amendment No. 4

Annex III

Rules for Implementing the Programme and Activities  
for Dissemination and Exploitation of the Results

Paragraph 5

5. The dissemination of the results of the training actions shall be carried out within the specific programme as well as through the centralized action of dissemination and exploitation, pursuant to the Decision referred to in the third paragraph of Article 4 in Decision 90/221/EURATOM, EEC.5. The dissemination of the results of the training actions shall be carried out within the specific programme and by means of, and in compliance with, the provisions governing the centralized action to be the subject of a decision taken by the Council in cooperation with Parliament pursuant to the third paragraph of Article 4 of Decision 90/221/EURATOM, EEC. The financial contribution of this programme amounts to .... ECU, in accordance with the financial provisions of Council Decision .... concerning centralized activities.

OPINION  
(Rule 120 of the Rules of Procedure)

of the Committee on Youth, Culture,  
Education, the Media and Sport

Draftsman: Mr E. KELLETT-BOWMAN

At its meeting of 26 June 1990 the Committee on Youth, Culture, Education, the Media and Sport appointed Mr KELLETT-BOWMAN draftsman.

At its meeting of 19 September 1990 the committee considered the draft opinion. At the same meeting it adopted the conclusions as a whole unanimously.

The following took part in the vote:

Barzanti, chairman; Simeoni, vice-chairman; Banotti, vice-chairman; Kellett-Bowman, rapporteur; Barton (for Buchan), Bindi (for Formigoni), Canavarro (for Gallo), Coimbra Martins, Dührkop-Dührkop, Elliott, Estgen (for Fontaine), Galle, Gröner, Harrison (for Kostopoulos), Hermans, Junker (deputizing member), Lambrias (for Lima), Maibaum (for Laroni), Mebrak-Zaidi, Pack (for Münch), Roth, Stewart-Clark.



Under Article 130k of the Treaty the Commission is putting forward for a Council decision a specific programme concerning human capital mobility. This specific programme is section 6 of part III (Management of Intellectual Resources) of the third framework programme for Community activities in the field of Research and Technological development (1990-1994).

The EP committee au fond is the Committee on Energy, Research and Technology and the Committee on Youth, Culture, Education, Media and Sport has been invited to put forward an opinion.

#### THE PROBLEMS FACING EUROPEAN SCIENTIFIC RESEARCH

In Europe much scientific research is still compartmentalised. It remains scattered among competing projects which often duplicate each others efforts. There is little exchange of findings between projects, and between the public and private sectors. There is also an over-proscribed, division between pure and applied research because we are handicapped by academic orthodoxy. We are still not sufficiently committed for forging genuine links between universities and industry.

The launching of Community scientific research programmes such as BRITE, ESPRIT, RACE, EVRAM (concerned with the competitiveness of European industry) and ERASMUS, COMETT, EUROTECHNET and SPRINT augurs well for the future. Nevertheless, it remains the case that there is still no European scientific area in which the free movement of scientists and the implementation of joint projects is guaranteed and also part of practical daily life. This is because a great deal of ground must be made up in those areas upstream of industry, and it is in education systems in general, rather than university level in particular, that the huge advances are needed in the Member States. Accordingly, it cannot be over-stressed that the importance of developing the COMETT and ERASMUS programmes are the means of familiarizing future generations of researchers, teachers and skilled workers with the ethos of moving and working within this new area of opportunity - the Community.

Thus, the major task confronting us is that of giving scientific research a genuinely European dimension. This can be done by setting up a series of complementary measures which provide a common thread from research to the industrial application of its findings - this in the context of co-operation and inter-change which place no restrictions or obstacles in the path for researchers.

#### TO WHAT EXTENT DO THE COMMISSION'S PROPOSALS REMEDY THESE PROBLEMS?

In two major objectives the Commission is far from clear. The original proposal suggested that special weight should be given to bursaries for post-graduate students as well as grants for postdoctoral research. This new proposal appears to eliminate the post-graduate bursaries in favour of the postdoctoral grants. The other major difference is that, whereas the first proposal projected twinning and co-operation between laboratories and universities, we now have the establishment of 'centres of excellence'.

Let us examine these two differences.

It is expected that an acute shortage of young researchers will manifest itself during this decade. At the same time we cannot fail to observe that one of the outstanding problems of European research is the ageing profile of our scientific personnel. The absence of a recognized social status is inhibiting many young men and women from the profession. This proposal fails to give added status to the select 5000 whom the Commission believe will benefit from his programme. Why is there no suggestion to dignify the fellows with a title? The draughtsman would offer 'Basil de Ferranti', 'Spinnelli' or even 'Leornado da Vinci' if these fellowships are to be a permanent feature of European scientific life? If the five year programme envisages but 5000 fellows in all, each for courses of about two years it would seem that they should be for the benefit of the postdoctoral (and equivalent) sector.

It is believed that the vast majority of applicants will be male. With this in mind, perhaps the Committee would like to consider some positive prejudice in favour of a threshold number of women fellows. Also it should be borne in mind that our partners in the ACP countries should be considered. The various agreements with eastern and central European countries could well make allowance for applications. If charity begins at home we should recall economic convergence within the Community and ensure that differences are not widened because the preponderance of applications will come from the more prosperous Member States!

#### CENTRES OF EXCELLENCE OR CO-OPERATION BETWEEN UNIVERSITIES?

The second major change in this edition of the Commission's proposals is that from cooperation between universities and laboratories to one of grant-aiding a selected few to become centres of excellence. The Commission should be asked to explain this change and, indeed, to justify it. It would seem that the intention is to nominate the centres and then invite postdoctoral students to apply. AS to how a fair method of section of these centres acceptable to all Member sTates could be established is not outlined in the annexes. It would seem to your draftsman that the best results would be obtained by the applicants for fellowships nominating their first choices of research centre, laboratory or university. This self-selection procedure might well establish which centres are excellent.

#### TWINNING AND CONFERENCES

Very real synergy can be extracted by tempting leading research centres to cooperate. The Commission clearly has the ability to tempt this sort of cooperation by funding joint projects in those fields in which European research needs to be encouraged.

Within disciplines and between disciplines high levels of exchange of information can be generated by well-planned and specifically targeted conferences. European associations for the advancement of science would encourage intradisciplinary and multidisciplinary exchanges which would be highly beneficial to the image of European research as well as to its practical progress.

## CONCLUSIONS

THE COMMITTEE believes that the Commission should be pressed to reveal its reasons for the changes in the programme for human capital mobility. The alteration in the educational level of fellow applicants and the switch in emphasis from twinning of research establishments are both material changes. The committee believes that the former is beneficial provided that the right safeguards are implemented. It further believes that the latter should be modified as described above. The committee would like to see an expansion of the conferences provided and for the twinning programme to be extended.

## PROPOSED DRAFT AMENDMENT

In the fifth paragraph of Annex I

After the first word 'Fellowships' add the words:

'to be known by the name of a man or a woman who gave an important contribution to the development of the European Culture.'

