

**COMMISSION OF THE EUROPEAN COMMUNITIES**

COM(84) 287  
Brussels, 24<sup>th</sup> May 1984

**COMMUNITY RESEARCH PRIORITIES**

(Communication from the Commission to the Council)

## I. INTRODUCTION

This communication is the response to a request made by the Council of Research Ministers, which at its meeting on 28 February 1984 agreed "to engage in a discussion of R&D priorities on the basis of Commission proposals". This document has been produced in order to prepare the way for the Council meeting of 8 June 1984, which is intended to set out the guidelines for and establish the magnitude of developments in S/T activities in the coming years.

A great deal of light has in fact already been shed upon this comprehensive discussion by the resolution which was adopted by the Council (25 July 1983) dealing with the principles, objectives and criteria for choosing actions in the "Framework Programme for Community scientific and technical activities 1984-1987"<sup>(1)</sup> When the Framework Programme (a guide for Community programming and decision making) was adopted, there was at the same time a recognition of the priority which R,D&D at European level should receive.

It now remains to flesh out this objective, putting it at the same time into financial and budgetary context and going into the necessary detail.

In this respect two major decisions have recently confirmed the Community's desire to give scientific and technical research a genuine Community priority :

- the recognition, in the official preparation texts for the European Council<sup>(2)</sup> of "the need to increase the proportion of Community resources allocated to funding priority Community research and development activities,
- the adoption of the ESPRIT Programme, the very scale of which clearly indicates the interest which Member States are displaying in respect of Europe's responses to the scientific and technical challenges which must be faced.

In this perspective the Commission now proposes :

- that the priorities to be specifically selected for R,D&D be confirmed and set out, in the context of the Framework Programme, which is the only tool capable of giving an overall coherence to Community S/T activities,
- that the budgetary approach suggested in this document be adopted bearing in mind the current financial situation and respecting the principles of general budgetary discipline proposed by the Commission (see COM(84)83 final)

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(1) See the text of the resolution in Annex II of this document.

(2) See Annex to minutes of the Council of 27.3.84 "Text having formed the basis of deliberations of the European Council intended to act as orientation texts for use by the Council in its various forms".

## II. IMPLEMENTING THE EUROPEAN SCIENTIFIC AND TECHNICAL STRATEGY

II.1. Several important decisions have already been taken on the basis of the resolution approving the Framework Programme 1984-1987.

- . The adoption of the Joint Research Centre's multiannual research Programme (1984-1987) and the modifications in its organisation which will enable it to play its full part as an instrument of Community S/T, in continuous liaison with corresponding national activities.
- . The implementation of the ESPRIT Programme, the first major European programme in the sector of new information technology.
- . The renewal of the programmes on Decommissioning nuclear power stations, the Environment and FAST which are likely to give a new impetus to work being undertaken in their respective fields.

These actions were immediately started up and are proceeding according to the stated objectives.

At the same time, and in line with the objectives of the Framework Programme, the Commission proposed a range of actions which seemed to be of major interest to the Community :

- . The Plan to stimulate European cooperation and scientific and technical interchange 1985-1988, which aims to bring about a real European S/T action space through the undertaking of original initiatives and methods of support,
- . The Research action Programme in the field of biotechnology (1985-1989) the implementation of which should not only enable Europe to rival its main competitors but also to achieve some of its own political objectives : reducing public expenditure in sectors such as agriculture and health care, developing food autonomy in the Third World, etc,
- . The continuation and extension of the Controlled thermonuclear Fusion Programme wherein lies a potential solution to the Community's long term energy supply problem.

Lastly, the Commission put a communication to the Council dealing with Telecommunications,<sup>(1)</sup> which presented some first proposals for a programme of action (25 MioECUs per year). A proposal for a programme of research and development will shortly be prepared and sent to the Council,

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(1) Communication from the Commission to the Council on Telecommunications : Progress report on the thinking and work done in the field and initial proposal for an action programme (COM(84)277).

enabling the Community to develop a mastery of the major technical changes which this sector of activity is currently experiencing.

II.2. In direct connection with the objectives chosen in the Framework Programme, several programme proposals have also been submitted to the Council by the Commission. These are currently at various stages of discussion with the Member States. Some have gone beyond the stage of decision on technical matters and now require political agreement :

- The Programme of Basic Technological Research and the application of new technologies (BRITE) which corresponds closely to the criteria of the Framework Programme for the goal "Improving industrial competitiveness".
- The Non-nuclear Energy Programme, whose sectoral sub-objectives have already been discussed at previous Councils and which has been supplemented by the recent proposal relating to hydrocarbons.
- The Radiation Protection Programme upon which experts have commented and agreed.

Again, the Radioactive Waste Programme 1985-1989 requires a decision during 1984 in order to avoid any hiatus in the work of teams working in these sectors within the Community.

II.3. Other recent Commission proposals still require discussions of principle from which new orientations should emerge from the Council on the basis of supplementary documents put forward by the Commission.

- The Programme on Reactor Safety for which the Council will have to formulate guidelines as to the orientation and scope of this activity, so that a programme decision can be arrived at quickly.
- The Programme of Aid for the development of endogenous scientific research capacity in the developing countries where the Commission, after having modified its original proposal in the light of Parliament's opinion, has made certain elements of its proposal more concrete.

At the same time, whilst the new programme of Agricultural Research 1984-1988 has been approved, its scale (30 MioECUs) and its excessively limited content do not however make up more than a partial response to the large and complex problems which R&D must tackle within the common agricultural policy. Supplements to, improvements in and extensions of the programme will have to be provided for in the future in order to imbue this fundamentally important sector of activity with a new dynamism.

II.4. Finally, the following programmes, which are very much part of the dynamic of the Framework Programme and which correspond to the priority objectives adopted by the Council are at an advanced stage of preparation within the services of the Commission :

- Advanced Materials,
- Transport,
- Fisheries, Acquaculture.

The importance of the objectives to which they respond, the urgency with which they should be implemented and the degree of technical maturity which they have already achieved led the Commission to include them in the preliminary draft budget 1985.

### III. FINANCING R,D&D ACTIVITIES - THE CHOICE TO BE MADE

The Council of Research Ministers on 28 June 1983 approved not only the principles, the objectives and the criteria for choosing Community R&D actions but also "expressed a large measure of agreement as to the need to increase Community Research and Development expenditure, and as to the proportionally greater share of overall Community budget which they should receive". This basic standpoint has been confirmed during the preparation of the latest European Councils.

And it is in this general context that the 1984 budget was prepared and adopted and in which the 1985 budget is being prepared now.

For 1984, whilst retaining an attitude of budgetary rigour,  
all actions that have been decided upon or which are in the process of being politically decided can be undertaken or committed.

For 1985 the preliminary draft R&D budget adopted by the Commission amounts to a special effort in this particular sector, having regard nevertheless to the constraints affecting the Community budget, even though it does not fully correspond to the initial ambitions to implement the Framework Programme. It should however enable a start to be made upon the most urgent actions, as set out in the following Table.

PRELIMINARY DRAFT BUDGET 1985 - Research Sector (Chapter 73)

Requests for appropriations by budget item, in MioECUs

	Commitment appropriations	Payment appropriations
7300 CBR	5.000	5.500
7301 Textiles and clothing	0.0	0.700
7302 Basic Technological Research	54.322	10.000
7305 Biomolecular Engineering	1.500	4.100
7306 Biotechnology	30.000	5.000
7308 Raw Materials	9.279	14.400
7310 Thermonuclear Fusion	102.500	81.250
7311 JET	80.000	70.700
Fusion contributions	6.150	6.150
7315 Radioactive Waste	0.700	6.700
7316 Decommissioning	3.200	2.300
7317 Reactor Safety	6.000	1.800
7318 Codes and Standards	1.100	1.000
7320 New Sources of Energy	56.000	20.000
7325 Medical Research	3.870	3.800
7326 Radiation Protection	24.000	11.800
7328 Environment	6.577	11.500
7330 Developing Countries	18.000	9.900
7331 Develop. Countries (endogenous capacity)	7.000	3.500
7335 ESPRIT	223.000	100.000
7350 FAST	3.540	1.300
7351 Stimulation	15.900	6.000
7353 Ligno-cellulose	0.176	0.125
7354 Food Technology III	0.185	0.150
7355 Food Technology IV	0.190	0.125
7356 Maritime Navigation	0.500	0.600
7358 Education Training	0.0	1.600
7359 International Cooperation	3.000	2.000
7360 Staff at disposal of outside bodies	0.750	0.750
7362 Services for outside bodies	0.150	0.150
7365 Research on Industrial Waste	0.0	1.800
Joint Research Centre	211.078	215.400
Chapter 100 (*)	37.050	9.900
TOTAL CHAPTER 73	910,720	610.000

(\*) Credits inscribed on Chapter 100 are designed to allow a start to be made on the following new actions in 1985 :

- Advanced Materials
- Fisheries, Aquaculture
- Telecommunications
- Transport
- Radioactive Waste (New Programme 1985-1989)

As the Table indicates, whilst it is possible to provide for the undertaking or the commitment (from 1985) of a large number of R,D&D programmes arising out of the objectives of the Framework Programme, the Commission does however find itself forced to postpone a certain number of others, in particular : ecoclimatology, natural disasters, agronomics research, non-ionising radiation, the technology and science of food-stuffs, health and safety at work.

The revision of the Framework Programme 1984-1987 which is scheduled for 1985 (article 5 of the Resolution dated 27.7.1983) will make it possible to restore these actions in the context of overall policy<sup>(1)</sup>.

With the 1985 budget, the Commission has thus been led to establish, within the Framework Programme, a hierarchy of priorities as to the timing of the implementation of corresponding activities, according to the urgency and value to the Community of the decisions to be taken, and to set out the financial repercussions involved.

The Commission now requests the Council to take a view upon this hierarchy of priorities.

This decision will be of great value during the 1985 discussion, as a means of making clear to Finance Ministers what level of resources ought to be made available for R&D.

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(1) See in Annex I the Table illustrating the breakdown of actions, corresponding to priorities determined by current circumstances, defined in this document according to the goals in the Framework Programme 1984-1987.

Once it has itself established the hierarchy of priorities to be employed the Research Council will be in a better position to take specific programme decisions before the end of 1984, it being clear that the chosen priority activities will be implemented according to budgetary availability. The fact that these decisions relate to multi-annual programmes means that there is enough flexibility for the budgets necessary for them to be implemented to be fixed in future years. In fact, variations could, if need be, be introduced into the process of committing the money for these programmes and their progressive implementation, either in terms of the methods by which they are carried out, or in terms of time-scale.

Lastly, the revision of the Framework Programme, scheduled to take place in 1985, could make it possible to undertake a new overall examination of, and, perhaps, to make modifications to the lines of priority that have been established.

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It should be noted that certain activities, known as horizontal activities, which are designed to accompany and support the research programme and of which examples are the proposals covering the utilisation of research results and the specialised information, are not dealt with in this document. They should however be the subject of specific and separate decisions by the Council.

#### IV. CONCLUSION

Thus, on the basis of this communication, the Commission is now asking the Council to come to an agreement upon the general lines and methods of developing the scientific and technical strategy, as proposed in this document for the years to come, and specifically :

- to invite the Budget Council to use the priorities chosen by the Research Council as a basis for allocating financial resources for R,D&D in 1985,
- to adopt a joint orientation so far as the 1985-1988 Plan to stimulate European cooperation and scientific interchange, as well as the Multi-annual Programme of research in the field of Biotechnology 1985-1989 are concerned,
- to come to a decision upon the programmes of Basic Technological Research and application of new Technologies (BRITE) and Non-nuclear Energy Sources for which appropriations have been inscribed in the 1985 budget (Chapter 100), as well as upon the Radiation Protection Programme,
- lastly, to undertake to come to a decision upon other programmes which appear in the preliminary draft budget 1985, according to the hierarchy of priorities which is chosen.



Breakdown, according to the goals in the Framework Programme, of actions corresponding to the priorities (determined by current circumstances) set out in this document

Community goals	For comparison 1982 Breakdown	Breakdown in % for actions under way or proposed in this document	Breakdown proposed in the Framework Programme
1. Promoting agricultural competitiveness, including fish	1.9	1.8	3.5
2. Promoting industrial competitiveness	16.8	36.8	28.2
3. Improving the management of raw materials	1.4	0.8	2.1
4. Improving the management of energy resources	65.4	45.9	47.2
5. Stepping up Development aid	0.70	2.9	4.0
6. Improving living and working conditions	9.80	10.1	10.3
7. Improving the efficacy of the Community's S/T potential	0	1.1	2.3
Horizontal Actions	4.0	0.1	2.4
TOTAL	100	100	100

## I

(Information)

## COUNCIL

## COUNCIL RESOLUTION

of 25 July 1983

on framework programmes for Community research, development and demonstration activities and a first framework programme 1984 to 1987

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 235 thereof,

Having regard to the Treaty establishing the European Atomic Energy Community, and in particular Article 7 thereof,

Having regard to the Council resolution of 14 January 1974 on the coordination of national policies and the definition of projects of interest to the Community in the field of science and technology <sup>(1)</sup>,

Having regard to proposals from the Commission in its communications to the Council dated 22 December 1982 and 20 May 1983 <sup>(2)</sup> on the framework programme 1984 to 1987,

Having regard to the opinion of the European Parliament <sup>(3)</sup>,

Having regard to the opinion of the Economic and Social Committee <sup>(4)</sup>,

Having regard to the opinion of the Scientific and Technical Research Committee (Crest),

Whereas Article 2 of the Treaty establishing the European Economic Community assigns to the Community the task, among others, of promoting throughout the Community a harmonious development of economic activities, a continuous and balanced expansion and an accelerated raising of the standard of living;

Whereas it is important to promote balanced scientific and technical development within the Community;

Whereas research, development and demonstration activities (R, D and D) must be accompanied by adequate dissemination of the knowledge acquired by means of these activities and by effective use of the results obtained;

Whereas, at its meetings on 9 November 1981 and 3 March and 30 June 1982, the Council affirmed the need to systemize and optimize Community action in the field of research, development and demonstration, having recognized that the strategic coherence of the Community's activities would be enhanced and the preparation and adoption of decisions in the aforementioned field would be greatly facilitated by the adoption and regular review by the Community institutions of a framework programme containing broad indications for the medium-term development of scientific and technical objectives;

Whereas, at its meeting on 8 February 1983, the Council expressed a large measure of agreement on the need to increase Community expenditure on research and development and on the proportionally larger share which should be allotted to it in the Community's overall budget, subject to further clarification of the budgetary implications;

Whereas, on 18 June 1983, the European Council adopted the Declaration concerning the development of policies and new Community action, budgetary discipline, own resources and particular problems of certain Member States;

Whereas the Commission's proposal concerning a first framework programme 1984 to 1987 seems likely to promote such a development of Community, research, development and demonstration policy;

Whereas the Treaty establishing the European Community does not provide the specific powers of action required for the adoption of this resolution,

<sup>(1)</sup> OJ No C 7, 29. 1. 1974, p. 2.

<sup>(2)</sup> OJ No C 169, 29. 6. 1983, p. 11.

<sup>(3)</sup> Opinion delivered on 10 June 1983 (not yet published in the Official Journal).

<sup>(4)</sup> Opinion delivered on 1 June 1983 (not yet published in the Official Journal).

HEREBY ADOPTS THIS RESOLUTION:

*Article 1*

The development of a common strategy in the field of science and technology shall take place on the terms laid down in this resolution and in accordance with the Communities' other strategies and policies.

*Article 2*

The common strategy in the field of science and technology shall be defined in framework programmes setting out the scientific and technical objectives to be pursued at Community level together with selection criteria for Community action, relative priorities and financial indications.

These framework programmes shall be drawn up by the Commission in consultation with the Member States.

On the basis of the framework programmes, the Commission shall prepare proposals for specific research, development and demonstration activities which meet the objectives referred to in the first paragraph.

*Article 3*

The Council hereby approves the principle of framework programmes for periods of four years which will be reviewed at least every two years and revised if necessary.

On the basis of proposals submitted to this end by the Commission and after receiving the opinion of the European Parliament, the Council shall:

- approve the framework programmes,
- adopt, in accordance with the framework programmes approved and with the procedures

instituted by the Treaties, specific decisions on the R, D and D activities of the Communities.

*Article 4*

The Council hereby approves the scientific and technical objectives for the period 1984 to 1987 and the selection criteria set out in Annexes I and II respectively.

The Council hereby confirms its agreement on the need to increase Community spending on R, D and D. While bearing in mind the need to frame Community policies, but awaiting the outcome of the general discussion on the Communities' resources and policies, for the time being the Council takes note of the financial indications relating to the objectives to be attained in the period 1984 to 1987 (Annex III). These indications are to serve as a guide for Commission planning and the adoption by the Council of specific R, D and D activities during that period.

These objectives and criteria, on the one hand, and these financial indications, which still have to be defined, on the other, shall constitute the elements on which implementation of the 1984 to 1987 framework programme will be based.

The planning and adoption of programmes will of course take account of financial constraints.

*Article 5*

In 1985 at the latest, the 1984 to 1987 framework programme will be reviewed on the basis of a Commission proposal and conclusions drawn from the experience gained from this first framework programme, with a view to evaluating its effectiveness and improving its underlying approach.

This review may result in revision of the first framework programme.

ANNEX I

Scientific and technical objectives

(1984 to 1987)

1. Promoting agricultural competitiveness:

- developing agricultural productivity and improving products:
  - agriculture,
  - fisheries.

2. Promoting industrial competitiveness:
  - removing and reducing barriers,
  - new techniques and products for the traditional industries,
  - new technologies.
3. Improving the management of raw materials.
4. Improving the management of energy resources:
  - developing nuclear fission energy,
  - controlled thermonuclear fusion,
  - developing renewable energy sources,
  - rational use of energy.
5. Stepping up development aid.
6. Improving living and working conditions:
  - improving safety and protecting health,
  - protecting the environment.
7. Improving the effectiveness of the Community's scientific and technical potential:  
horizontal action.

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## ANNEX II

### Selection criteria

In general, when selecting Community activities on the basis of the scientific and technical objectives adopted, special attention should be given after assessment of their scientific and technical values to activities which contribute to the definition or implementation of Community policies.

In these fields, Community action can be justified where it presents advantages (added value) in the short, medium or long term from the point of view of efficiency and financing or from the scientific and technical point of view as compared with national activities (public or private).

More specifically, Community action can be justified in the following cases:

- research on a very large scale for which the individual Member States could not, or could only with difficulty, provide the necessary finance and personnel,
  - research, the joint execution of which would offer obvious financial benefits, even after taking account of the extra costs inherent in all international cooperation,
  - research which, because of the complementary nature of work being done nationally in part of a given field, enables significant results to be obtained in the Community as a whole for the case of problems whose solution requires research on a large scale, particularly geographical,
  - research which helps to strengthen the cohesion of the common market and to unify the European scientific and technical area and research leading, where the need is felt, to the establishment of uniform standards.
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## ANNEX III

Financial indications by objectives  
(1984 to 1987)

	(million ECU <sup>(1)</sup> )	(%)
1. Promoting agricultural competitiveness:	130	3,5
— developing agricultural productivity and improving products:		
— agriculture	115	
— fisheries	15	
2. Promoting industrial competitiveness:	1 060	28,2
— removing and reducing barriers	30	
— new techniques and products for the traditional industries	350	
— new technologies	680	
3. Improving the management of raw materials	80	2,1
4. Improving the management of energy resources:	1 770	47,2
— developing nuclear fission energy	460	
— controlled thermonuclear fusion	480	
— developing renewable energy sources	310	
— rational use of energy	520	
5. Stepping up development aid	150	4,0
6. Improving living and working conditions:	385	10,3
— improving safety and protecting health	190	
— protecting the environment	195	
7. Improving the effectiveness of the Community's scientific and technical potential:	85	2,3 <sup>(1)</sup>
horizontal action	<u>90</u>	<u>2,4</u>
	<u>3 750</u>	<u>100,0</u>

<sup>(1)</sup> At 1982 constant values.<sup>(1)</sup> Corresponds to 5 % by the end of the period.