

COMMISSION OF THE EUROPEAN COMMUNITIES

COM(82) 808 final¹

Brussels, 3 December 1982

PROPOSAL FOR A COUNCIL DECISION

adopting an experimental community action to stimulate
the efficacy of the European Economic Community's
scientific and technical potential

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(presented by the Commission to the Council)

COM(82) 808 final

INTRODUCTION

The Commission has demonstrated the need for and the value of a community stimulation activity (1). Whilst the Community possesses a potential in Science and Technology, which is both considerable and of high quality, the efficacy of R&D systems is rather limited. In particular the weakness of mobility factors, a distinct lack of jobs for young graduates and, sometimes, the failure of structures to adapt to changes in science and technology are some of the handicaps which ought to be overcome. The Council recognised that such an activity would be both useful and opportune, and invited the Commission to place before it the fields of activity and the operational arrangements to be adopted for an experimental phase, which would make it possible to try out the specific ways and means to be employed in such an activity.

In the light of the draft which was presented by the Commission (2) the Council (3) invited the Commission to submit to it a proposal for a decision on an experimental stimulation action over two years.

It is this which forms the subject of this communication.

(1) COM(81)574 final : "Scientific and Technical research and the European Community : proposals for the 1980's (12 October 1981)

COM (82)322 final : "Stimulating the Community's scientific and technical potential" (8 June 1982)

(2) COM(82)493 final "Stimulating the Community's scientific and technical potential - experimental phase 1983" (4 August 1982)

(3) Conclusions of the 799th meeting of the Council (4.11.82)

A) EXPERIMENTAL PHASE 1983-1984

1. Objectives

As the Commission made clear in a previous communication (1), these stimulation activities will call for appropriate procedures and intervention arrangements, which will need to be original by comparison with the range of community approaches and resources which are available and which have been used for years to implement Community scientific and technical programmes. It would be useful therefore, as a first stage, to try out the procedures and operational arrangements specific to stimulation.

The object of the experimental action is thus to test the methods of community stimulation, which are to be implemented and perfected on a reduced scale with illustrative interventions.

In a certain number of fields, multi- or interdisciplinary activities carried out jointly at multinational level should make it possible not only to test the approaches and methods for stimulation, but also to stimulate the scientific competitiveness of the Community and to open up avenues of development which have a direct socio-economic value.

2. The experimental stimulation action and the Framework Programme

The stimulation action corresponds to one of the major goals of the Framework Programme.

On the one hand it aims directly to reinforce the Community's scientific competitiveness, and by the same token it has a fairly direct value so far as increasing economic competitiveness is concerned, or improving safety factors and the development of a dialogue between the Community and Third World.

(1) COM(82)493 final "Stimulating the Community's scientific and technical potential - experimental phase 1983" (4 August 1982).

On the other hand it provides an indispensable complementary factor to programmed activities within the framework programme, allowing the common strategy to preserve the flexibility, edge and speed of action which is vital to it.

The stimulation activity has, by its very nature, a special place in the framework programme. In fact, since it aims to reinforce the efficacy of R&D within the Community, stimulation is more based upon the support of teams and upon "styles" of R&D (multidisciplinary and multinational) than upon the development of research and development activities. Because of this it constitutes a non programmable group of activities.

To end the isolation of mono-disciplinary research, to open it up to the multinational, community dimension and to cross fertilisation, as well as exploiting promising new discoveries or responding to unforeseen needs, all require a capacity to react to the new situations which come up, as soon as they come up.

At the same time as an outline plan for stimulation, to form part of Framework Programme for Community R&D activities is being prepared, ready for submission to the Council shortly, the proposed experimental phase will lay the foundations for the sustained action which needs to be adopted as one of the bases of the common strategy.

The content of the experimental phase has been defined according to the basic goals of the future Framework Programme.

3. Fields of activity and operational arrangements

Over 60 studies (36 of them in the context of the work of FAST), twenty conferences, seminars, meetings of groups of experts (within or under the auspices of CERD), national or Community level reports (PE or CES for example), consultations at national or international level (ESF, the Solvay Physics and Chemistry Institute, NATO) and the national R&D policy confrontation exercise (COPOL) have between them :

- highlighted those factors which limit the effectiveness of European R&D systems and the extent to which they match up to today's needs,
- brought about an evaluation of the limits of national, international and Community action to boost this effectiveness and improve appropriateness,
- established a wide range of multisectoral and multidisciplinary areas where an international dimension is called for if they are to experience better scientific and technological development.

With this basis the Commission was able to think out, define and propose a Community stimulation activity answering to the need for greater scientific and technical progress within the Community.

The purpose of the experimental action is to test and refine the specific operational methods which stimulation activities call for by their very nature. For, in this instance, the exemplary character of the chosen field is just as important as its scientific interest or the expected outcome of the stimulation activities which seem appropriate to it. From the large number of fields which might be envisaged and which have been highlighted by the studies in preceding years the Commission has thus selected seven (see annexe) which :

- are of unquestioned scientific value (at a multisectoral, multidisciplinary or Community level) and where progress is hindered by constraints of the sort which it is hoped we can overcome,
- make it possible to test and refine methods of stimulation intervention which seem appropriate for Community activity,
- can be of interest to each of the ten national R&D systems,

- are such that the significant methodological tests which are needed can be undertaken without too heavy a financial commitment, either in volume terms or over time,
- are, finally, sectors in which, with the intervention methods which will be experimentally applied to them, it is reasonable to look for notable scientific and technological results, which might even have direct implications in terms of valuable socio-economic developments.

Of course if propositions are put forward which are even better from the point of view of their exemplary qualities, and which have even greater potential scientific and technical value, the Commission will take them into account so far as resources permit it to do so.

The operational arrangements which have been adopted (see annexe) were presented to the Council in detail on 4 August 1982 (1). They consist of arrangements whose effectiveness has already been proved at national and international level.

B CONCLUSION

The Commission requests the Council to adopt, on the basis of the common orientation which was arrived at on 4 November 1982, the attached proposal for a decision so that the experimental action to test the ways and means for community stimulation may be undertaken in 1983 and 1984.

(1) COM(82)493 final

A) PROPOSAL FOR A COUNCIL DECISION

Adopting an experimental community action to stimulate the efficacy of the European Economic Community's scientific and technical potential

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 proposal from the Commission,

Having regard to the opinion of the European Parliament,

Having regard to the opinion of the Economic and Social Committee,

Whereas Article 2 of the Treaty assigns to the Community the task, *inter-alia*, 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; the activity to be performed to this end by the Community is set out in Article 3 of the Treaty;

Whereas, by its resolution of 14 January 1974 dealing with the coordination of national policies and the definition of activities with Community interest in the field of science and technology, the Council entrusted the Commission with the task of defining activities of Community interest and selecting the approaches and methods appropriate to the implementation of these activities;

Whereas the overall community strategy derives from the conception and implementation of a general Framework Programme for common scientific and technical activities;

Whereas amongst the fundamental goals proposed by the Commission for the Framework Programme and favorably received by the Council of Ministers on 8 March 1982, that of "improving the Community's scientific and technical efficacy" calls for special modes of intervention;

Whereas on 30 June 1982 the Council recognised the value of a Community stimulation action to supplement existing national and international activity;

Whereas, accordingly, it is appropriate to adopt an experimental stimulation action at this stage which will make it possible to define explicitly the approaches for subsequent action, to be defined in a general Framework Programme for common scientific and technical activities;

Whereas the Treaty establishing the European Economic Community does not provide the necessary powers for these purposes;

Whereas the Scientific and Technical Research Committee (CREST) has given an opinion on this matter,

HAS DECIDED AS FOLLOWS :

Article 1.

An experimental action to stimulate the efficacy of the European Economic Community's scientific and technical potential, as set out in the Annex, is hereby adopted for a two-year period commencing on 1 January 1983.

The experimental action shall consist of activities with the purpose of testing approaches to and methods of stimulation in the Community, basically within the seven fields defined in the Annex.

Article 2.

The amount required to carry out the experimental activities is estimated at 7 million ECU, including expenditure on a staff of three.

Article 3.

The Commission shall be responsible for the implementation of the action, by means of research allocations, grants to help laboratory twinning, development contracts, grants to assist research teams, seminars and courses. It shall be assisted in this task by an advisory committee (CODEST: Committee for the European Development of Science and Technology) which it shall set up for the purpose, made up of eminent personalities in the field of science and technology, of recognised standing, active in national research and development systems and aware of national policies, as well as by a group of consultants.

Article 4.

The Commission shall undertake a methodological evaluation at the end of the first year of the experimental activity. The report on this evaluation shall be transmitted to the Council and to the European Parliament.

Article 5.

The results of implementation of the action shall be disseminated pursuant to Regulation (EEC) No 2380/74 of 17 September 1974 adopting provisions for the dissemination of information relating to research programmes for the European Economic Community.

ANNEXE TO THE PROPOSAL FOR A DECISION.

Experimental action dealing with the stimulation of the Community's scientific and technical potential

The experimental action will relate to activities of a multi or interdisciplinary nature for which joint working at multinational level is necessary or preferable.

The programme of action is set out as follows :

1. Three kinds of activity are to be given priority support :

- activities for which the joining up (whether mono or interdisciplinary) of research teams is beneficial or indispensable. Union within a discipline would be an attempt to bring together teams working within the same discipline but in different countries. Such collaboration should, in certain cases, make it possible to attain the critical mass which is needed in order for the creativity of each team to take off. Interdisciplinary union would seek to link teams working within different disciplines, often located in different countries. Both methods aim to exploit the richness of methods and results now dispersed throughout Europe,
- activities enabling the promotion of high quality teams which because of the novel nature of their work, do not yet benefit from the support which their worth, and the potential value of their work, would seem to justify,
- activities leading to a strengthening of the communication and diffusion of information within the scientific and technical system.

These activities would involve in the main the following seven areas :

- pharmacobiology : application of new developments in cellular and molecular biology,
- solid state physics : structure phenomena and processes of fabricating composite materials,
- optics : application of modern techniques of mathematical analysis to various problems in the field of optics,
- combustion : approach to ignition phenomena (behaviour of material under combustion conditions),
- photometry/photoacoustics : application to the field of non-destructive analysis,
- interface phenomena,
- climatology : transitory phenomena.

2. In these fields different kinds of illustrative stimulation activities are to be tried out : research allocations, laboratory twinning, seminars or workshops, subsidies for research teams.

On the other hand a specific project of a multidisciplinary nature will be started up, to enable joint working by teams in different countries to bring it to successful conclusion.

3. The choice of stimulation activities and the scientific and technical teams involved will be made as follows :

- the Commission will inform the national scientific and technical communities of opportunities for Community intervention in the selected fields, and in the expectation of receiving tenders,

The selection of tenders will be made by the Commission which, with the assistance of the Committee for the European Development of Science and Technology (CODEST), will make use of a "peer review" system to judge the scientific and technical merit of the activities proposed and the quality of the teams putting them forward. The interventions chosen will possess a multinational character (mobility of researchers from one country to another, teams made up of researchers from various countries of the Community, projects carried out jointly by various teams in various countries of the Community, etc...) and will involve activities of the type set out in para. 1 of this annex.

These activities will be complementary to and coherent with Community scientific and technical activities carried out elsewhere.

4. A group of studies, consultations, surveys, seminars etc., carried out in collaboration with the scientific and technical community will make it possible to analyse and evaluate the scientific and technical needs and opportunities with a view to specifying the content of the annual stimulation plans incorporated in the Framework Programme.

B) FINANCIAL RECORD1. Budget line : 73821. 1. Title of the action :

Stimulating the efficacy of the European Community's scientific and technical potential.

2. Legal Basis : article 235 of EEC Treaty

Council decision dated

3. Description of the action

The stimulation action consists of carrying out various activities of an incentive nature

- research allocations :

payment of an allowance to cover travel, lodging and research expenses of scientists who, during a stay at a foreign laboratory (within the EEC) are to make use of new knowledge to carry out research into a complex problem; or the provision of complementary support to a sub-critical team,

- workshops, seminars :

contribution to the dissemination of the best available knowledge and the development of contacts between researchers,

- twinning of laboratories in different countries :

making it possible for researchers in various countries of the Community who are working in parallel in an advanced field to get together and thus reach "critical" numbers; in order to do this it will be necessary to grant subsidies making it possible for researchers to meet, carry out joint experiments and exchange results,

- the development of multidisciplinary and multinational operations :
to make it possible, via development contracts, to bring together
the best available skilled persons in various countries and various
disciplines in order to achieve a pre-determined objective.

The experimental action 1984-1987 will be a test and pilot experiment phase for these new activities. Its objective will be :

- set up the structures and procedures for defining and selecting activities and interventions;
- set up and calibrate the intervention mechanisms, making use of specific examples by developing some limited scale experiments.

4. Justification for the action

The Council resolutions of 14 January 1974, clarified at the Council meeting of 20 December 1979 assigned precise tasks to the Commission so far as the common scientific and technical policy was concerned.

In its response to the mandate of 30 May 1980 the Commission underlined its desire to develop the Community's scientific research and technology in order to improve the contribution they can make to responding to the major socio-economic challenges of the day.

In its proposals for the 1980's (COM(81)574 final) the Commission considered that it was important to round off and strengthen its RD programme policy by means of an activity "to stimulate scientific efficacy and develop specific projects of common interest".

The Council then, on 9 November 1981, requested the Commission to put forward specific proposals for stimulating the efficacy of the European Research system and for promoting mobility among researchers. The European Council of 26 and 27 November 1981 confirmed these requests.

The Council of 30 June 1982 invited the Commission to put forward to it the fields of activity and the operational arrangements to be selected for an experimental phase which would make it possible to test the ways and means specific to such an action.

The Council of 4 November 1982 adopted a common orientation with a view to taking a decision relating to an experimental phase lasting two years (1983-1984) for which the amount of funds required has been estimated to be 7 Mioecu.

5. Financial implications

5. 1. Nature of the expenditure

- . Studies, seminars, workshops, conferences
- . Research allocations
- . Laboratory "twinning"
- . a development contract for a multidisciplinary and multinational project the outcome of which is intended to be a previously specified result.

5. 2. Total cost

- . 7 Mioecu, financed 100% from the Communities budget

5. 3. Method of calculation

a) staff expenditure

The staff proposed for this action comprises three officials (2A + 1C); the annual staff cost would be 180,000 ecus (including reserve) or 360,000 ecus for 1983 and 1984.

b) operating costs of CODEST and the network of consultants.

Methodological evaluation of the system.

These costs are assessed at 170,000 ecus per year, or 340,000 ecus for 1983-1984, made up principally of expenses for organising meetings and administrative support.

c) Expenditure on contracts :

The expenditure anticipated is 6,300,000 ecus to be spent on the activities carried out (cf. item 3) according to the following table :

. research allocations	1,900,000 ecus
. laboratory "twinning", support for joint working	1,900,000 ecus
. the pooling by specialists in various countries of bodies of available knowledge in several fields, the bringing together of which is needed to solve a given problem (workshops, studies, conferences)	500,000 ecus
. implementation of a scientific and technical project with a predetermined objective and for which an overall body of multidisciplinary and multinational work is required	2,000,000 ecus

5. 3. 1. Multiannual expenditure timetable :

Commitment appropriations (ecus)

Type of expenditure	1983	1984
Staff	180.000	180.000
Administration	170.000	170.000
Contracts	4.650.000	1.650.000

Payment appropriations

Type of expenditure	1983	1984	1985
Staff	180.000	180.000	
Administration	170.000	170.000	
Contracts	2.650.000	1.650.000	2.000.000

5. 4. Financing of expenditure

Appropriations to be entered under the budgets for the years 1983 - 1984 - 1985.

6. Control

- a) Financial control : to be undertaken by the relevant Commission services, particularly by the DG for financial control, to ensure that the expenditure has been incurred in a regular and correct manner.
- b) Scientific control : to be undertaken by the relevant Commission services, the scientific consultative committee (CODEST) and according to general evaluation procedures for community R&D activities.