

Proposal for a Council Decision adopting a specific of research and technological development programme in the field of marine science and technology (1990 to 1994)

COM(90) 159 final — SYN 264

(Submitted by the Commission on 3 May 1990)

(90/C 174/07)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

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

Having regard to the proposal from the Commission,

In cooperation with the European Parliament,

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

Whereas, by Decision 90/221/Euratom, EEC⁽¹⁾, the Council adopted a third framework programme for Community activities in the field of research and technological development (1990 to 1994), specifying *inter alia* the activities to be pursued for developing the scientific knowledge and technical know-how needed by the Community in particular to carry out its role relating to the environment, especially in marine science and technology; whereas this decision should be taken in the light of the grounds set out in the preamble to that Decision;

Whereas Article 130k of the Treaty stipulates that the framework programme is to be implemented through specific programmes developed within each activity;

Whereas an estimate should be made of the amount of Community financial resources needed to carry out this specific programme; whereas the definitive amounts will be fixed by the budgetary authority in line with the financial perspectives covering the period 1988 to 1992 included in the Interinstitutional Agreement of 29 June 1988⁽²⁾ and with any future financial perspectives covering the period 1993 to 1994;

Whereas, pursuant to Article 4 of and Annex I to Decision 90/221/Euratom, EEC, the amount deemed necessary for the whole framework programme includes an amount of ECU 57 million 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 'Environment' action the estimate of the financial resources needed by this programme is to be reduced by ECU 1 040 000, 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 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 essentially by the selection of research and development projects to enable them to benefit from Community participation; whereas the Commission should encourage the submission of such projects by the usual means of publishing calls for proposals in the *Official Journal of the European Communities*; whereas a special procedure should also be devised so as to maintain a degree of flexibility enabling the Commission, in the face of the continuous evolution and gradual acceleration of technological progress, also to take into consideration spontaneous proposals consistent with the objectives of the programme;

Whereas the projects to be carried out under the programme must be selected with special attention to the principle of economic and social cohesion in the Community, the transnational nature of the projects and the support to be given to small and medium-sized enterprises;

Whereas it is only in the light of experience gathered in the course of this programme that the Commission will be able to propose and the Council to adopt supplementary programmes by having recourse to the means provided for in Articles 130l, 130m or 130o of the Treaty, if they contribute to the achievement of the programme's objectives, in accordance with the option made available by Article 2 (2) of Decision 90/221/Euratom, EEC;

Whereas, in accordance with Article 130g of the Treaty, the Community's activities aimed at strengthening the scientific and technological basis of European industry and encouraging it to become more competitive include promoting cooperation on research and technological development with third countries and international organizations; whereas such cooperation may prove particularly beneficial for the development of this programme;

⁽¹⁾ OJ No L 117, 8. 5. 1990, p. 28.

⁽²⁾ OJ No L 185, 15. 7. 1988, p. 33.

Whereas it is necessary to acquire a good knowledge base and reliable forecasting techniques in order to work out long-term management and protection strategies for the marine environment, as envisaged in Annex II to Decision 90/221/Euratom, EEC;

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

HAS ADOPTED THIS DECISION:

Article 1

A specific research and technological development programme for the European Economic Community in the field of marine science and technology, as defined in Annex I, is hereby adopted for a period of five years as from 1 January 1990.

Article 2

1. The Community funds estimated as necessary for the execution of the programme under this Decision amount to ECU 104 million. Of this amount ECU 1 040 000 is drawn for the centralized dissemination and exploitation of results. The amount thus reduced to ECU 102 960 000 includes staff costs which may not exceed 5 %. An indicative breakdown of expenditure is set out in Annex II.

2. Should the Council take a decision in implementation of Article 1 (4) of Decision 90/221/Euratom, EEC, this decision shall be adapted to take account of the abovementioned Decision.

3. The budgetary authority shall decide on the appropriations available for each financial year.

Article 3

Rules for the implementation of the programme are set out in Annex III.

Article 4

The rate of the Community financial contribution shall be laid down in accordance with Annex IV to Decision 90/221/Euratom, EEC.

Article 5

1. During 1992 the Commission shall review the programme and address a report on the results of the review to the Council and the European Parliament, together with proposals for any necessary changes.

2. At the end of the programme the Commission shall assess the results obtained. It shall address a report thereon to the Council and the European Parliament.

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.

Article 6

1. The Commission shall be responsible for the execution of the programme. It shall be assisted by a committee, hereinafter referred to as 'the Committee', composed of representatives of the Member States and chaired by a representative of the Commission.

2. The contracts concluded by the Commission shall govern the rights and obligations of each party, including the procedures for disseminating, protecting and exploiting the research results, in accordance with the arrangements adopted pursuant to the second paragraph of Article 130k of the Treaty.

3. A work programme for each year shall be drawn up and updated where necessary. It shall set out the detailed objectives and types of projects to be undertaken, and the financial arrangements to be made for them. The Commission shall make calls for proposals for projects on the basis of the annual work programmes.

Article 7

1. In the cases envisaged in Article 8 (1), the Commission representative shall submit to the Committee a draft of the measures to be taken. The Committee shall deliver its opinion on the draft within a time limit which the chairman may set according to the urgency of the matter. The opinion shall be delivered by qualified majority as provided for in Article 148 (2) of the Treaty in the case of decisions which the Council is required to adopt on a proposal from the Commission. The votes of the Member States' representatives within the Committee shall be weighted in the manner set out in that Article. The chairman shall not vote.

2. The Commission shall adopt the measures envisaged where they are in accordance with the Committee's opinion.

3. If the measures envisaged are not in accordance with the Committee's opinion, or if no opinion is delivered, the Commission shall forthwith submit to the Council a proposal relating to the measures to be taken. The Council shall act by a qualified majority.

4. If the Council has not acted within one month of submission of the proposal, the proposed measures shall be adopted by the Commission.

Article 8

1. The procedure laid down in Article 7 shall apply to:

- the preparation and updating of the work programmes referred to in Article 6 (3),
- evaluation of the projects referred to in point 2 of Annex III, as well as the estimated amount of the Community's financial contribution when these projects are submitted through the ordinary procedure referred to in point 4 of Annex III and the abovementioned amount is more than ECU 5 million,
- evaluation of all projects submitted through the exceptional procedure referred to in point 4 of Annex III, as well as the estimated amount of the Community's financial contribution,
- measures for evaluating the programme.

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

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

- the progress of the programme,
- planned calls for proposals, referred to in Article 6 (3),
- projects, referred to in point 2 of Annex III, submitted through the ordinary procedure, for which the Community contribution is less than ECU 5 million, and the results of their evaluation,

- accompanying measures, referred to in point 2 of Annex III,
- concerted actions, referred to in point 2 of Annex III.

Article 9

In implementing this programme, supplementary programmes within the meaning of Article 130l, participation within the meaning of Article 130m and joint undertakings or any other structures within the meaning of Article 130o of the Treaty may also be decided on as the need arises.

Article 10

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.

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

Article 11

This Decision is addressed to the Member States.

*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 3C of Annex II to the Framework Programme forms an integral part of the present specific programme.

The intention is to develop certain activities begun under the MAST pilot programme (1989 to 1992), to introduce new topics and expand the geographical coverage.

A number of these activities will build on the supporting initiatives undertaken in the MAST pilot programme and thus include the following areas: the establishment of a European ocean data and information system; the preparation of norms and standards for marine science and technology; a modelling coordination initiative; development of a pilot communication system for exchange of information on research cruises and research facilities; studies on the scientific and design requirements for new large scale facilities; and new approaches to mapping and bathymetric/hydrographic surveying.

The following presents an analytical description of the content of the programme, based on and taking account of the above elements.

Area 1: Marine science

Multidisciplinary research will be carried out on processes and fluxes, using mathematical modelling where necessary.

Detailed and expanded studies of ocean circulation systems and dynamics of water masses will be carried out in order to determine the water movement and physical processes in European seas and adjacent oceans. Special attention will be paid to the shelf edge. The influence of sea ice on deep water formation and on ocean circulation will be studied.

Research will be continued and further work will be carried out on biogeochemical processes, in particular to understand and quantify the fluxes of carbon and other elements in the sea. Hydrothermal activity is also included as well as the global carbon cycle in coastal, continental, and deep seas.

Studies will be undertaken to evaluate rates of exchange of substances at interactive sites (e.g. various interfaces: air/sea, sea floor/water column, etc.), particularly during bad weather conditions.

Research will be aimed at deriving mathematical expressions and reliable models for biological processes. Particular attention will be given to projects which examine the link between physico-chemical influences and the corresponding biological responses at all trophic levels.

Research in marine geosciences will be expanded to include stratigraphy and geophysics as well as addressing specific problems relating to the behaviour of sediments in various marine situations, (e.g. shelf, slope and deep sea). Investigations of the geological record and geophysical properties of deep-sea sediments are required to contribute to global change research and to assess the appropriate use of the sea floor.

Modelling will be used in the study of marine processes and will include validation, calibration, and assessment of boundary conditions at various time scales. Development and improvement of models of ecosystems will be a particular priority.

These activities will involve the Community in on-going international programmes (e.g. World ocean circulation experiment, Joint global ocean flux studies, etc.), and will contribute to their long term objectives. Work in this area will be carried out in cooperation with related Community programmes on the marine environment (e.g. STEP, Epoch, FAR, and JRC actions). In marine geosciences, complementarity with the ocean drilling programme will be sought where necessary in order to avoid any overlap of work.

Area 2: Coastal engineering

The objectives, which build on projects in the MAST 1989 to 1992 pilot phase, are: to gain an increased level of understanding of marine processes affecting the behaviour of coastal structures, and of their interactions; to develop numerical modelling of coastal processes and the integration of process models for purposes of coastal management in Europe; and furthermore to harmonize on a European scale, design concepts of coastal engineering works.

Research will therefore concentrate on the study of currents, waves, the behaviour of sediments (mobilization, transport, deposition, geotechnical properties), as well as changes in sea floor and coastline morphology. Coastal engineering research will further develop work on the impact of waves and other coastal processes on the stability of breakwaters and other structures. A particular aim is to maintain and promulgate Europe's lead in these fields by formulating European guidelines for coastal engineering. Research to improve beach nourishment schemes will also be undertaken. Synergy with climatology and natural hazards research will be assured.

Area 3: Marine technology

The objective is to encourage the development of existing and new instruments and enabling technologies, particularly with a view to speeding up the introduction of automated long-term measuring systems, as well as contributing to the development of operational observation systems.

The research will concern the development of new sensors, (quasi) real-time data transmission and two-way communication links. Further work will be aimed at instruments for measuring and sampling in the water column and on and below the sea floor. Research in underwater acoustics will be aimed at self-navigation of vehicles, determination of sea floor properties, acoustic communication, sub-bottom profiling and innovative

acoustic measurements in particular. Selective actions in the development of new or improved enabling technologies, e.g. acoustic imaging and optics, will be undertaken. Studies on the identification and exploitation of natural chemical substances in the marine environment, and impact studies on the exploitation of marine mineral resources will also be implemented.

This research will be coordinated with the Eureka initiatives in marine science and technology and will supplement work in Brite/Euram and Esprit in the materials testing, robotics and informatics aspects of instrument development.

ANNEX II

Indicative breakdown of expenditures for the period 1990 to 1994

	(%)
Area 1: Marine science, including integrated projects	45-50
Area 2: Coastal engineering	15-20
Area 3: Marine technology	30-35

The breakdown between different areas does not exclude the possibility that projects could cover several areas.

ANNEX III

Rules for implementing the programme and activities for dissemination and exploitation of the results

1. The Commission shall implement the programme on the basis of the scientific and technical content described in Annex I.
2. The rules for implementing the programme, referred to in Article 3, comprise research and technological development projects, accompanying measures and concerted actions.

The projects shall be the subject of shared-cost research and technological development contracts.

The accompanying measures consist of applying the means to ensure proper technical execution, management and evaluation of the programme, as well as adequate dissemination and accessibility of the results, and coordination, training and consciousness-raising of the participants in the programme.

The concerted actions are those defined in the Financial Regulation.

3. The participants in the projects must be natural or legal persons established in the Community, such as universities, research organizations and industrial firms, including small and medium-sized enterprises, or associations thereof, in particular European economic interest groupings (EEIGs).

Natural or legal persons established in countries which have concluded agreements with the Community foreseeing scientific and technical research, may, based on the criterion of mutual advantage, take part in the projects undertaken in the context of this programme. The contracting parties under such arrangements shall not benefit from Community funding. They shall contribute to the general administrative costs.

4. The choice of projects shall be carried out according to the following order of priority, the first method being the rule, the second the exception.

The participants in the projects shall be selected on the basis of the ordinary procedure of calls for proposals referred to in Article 6 (3) and published in the *Official Journal of the European Communities*.

The Commission may also accept proposals according to an exceptional procedure and under the conditions mentioned below, when they make a particularly promising and significant contribution as regards the originality of the theme proposed, the novelty of the scientific and technical approach and the methodology of execution, also taking into account the particular nature of the proposers.

A favourable technical evaluation of such proposals shall not by itself be a sufficient justification for accepting a project; this exceptional procedure may only apply after verification that the nature of the project, as defined above, does not justify the use of the normal procedure for calls for proposals.

The exceptional procedure must be completed before the ordinary procedure in such a way that the available amount for the Community's financial participation in projects retained by the ordinary procedure can be determined precisely. The closing date for the exceptional procedure shall be published each year in the *Official Journal of the European Communities*.

The amount of the financial participation of the Community for all the projects retained by the exceptional procedure will be decided each year, in relation to the projects selected according to particularly strict criteria of excellence. In any case, this amount may not exceed 15%; it may be revised each year in the light of experience.

The Commission shall draw up a *vade mecum* setting out all the rules applicable to this exceptional procedure in order to guarantee full transparency.

5. The projects must involve at least two mutually independent partners established in different Member States.
6. The Commission may encourage the participants to form a European Economic Interest Grouping (EEIG) or make other arrangements for carrying out projects, such as those on a large scale, permitting decentralized management adapted to the specific requirements of the project.
7. The knowledge acquired during the course of the projects shall be disseminated on the one hand within the specific programme and on the other and by means of a centralized activity, pursuant to the Decision referred to in the third subparagraph of Article 4 of Decision 90/221/Euratom, EEC.

Proposal for a Council Decision adopting a specific research and technological development programme in the field of biotechnology (1990 to 1994)

COM(90) 160 final — SYN 265

(Submitted by the Commission on 3 May 1990)

(90/C 174/08)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

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

Having regard to the proposal from the Commission,

In cooperation with the European Parliament,

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

Whereas, by Decision 90/221/Euratom, EEC⁽¹⁾, the Council adopted a third framework programme for Community activities in the field of research and technological development (1990 to 1994), specifying *inter alia* the activities to be pursued for contributing to the development of the European potential for understanding and exploiting the properties and structures of living matter; whereas this Decision should be taken in the light of the grounds set out in the preamble to that Decision;

⁽¹⁾ OJ No L 117, 8. 5. 1990, p. 28.