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REPORT
drawn up on behalf of the Committee on Energy, Research and Technology

on the communication from the Commission of the European Communities to the Council (Doc. 1-57/83 - COM(82) 865 final) containing proposals for a European scientific and technical strategy: framework programme 1984-1987

Rapporteur: Mr B. SÄLZER

English Edition PE 83.906/fin.

By letter of 6 January 1983 the Commission of the European Communities consulted the European Parliament on the proposal from the Commission to the Council for a European scientific and technical strategy: framework programme 1984-1987, in accordance with the provisions of Document 103/73 (COM(73) 999), Annex I, paragraph 2, second subparagraph.

On 11 April 1983 the President of the European Parliament referred the proposal to the Committee on Energy and Research as the committee responsible, and to the Committee on Economic and Monetary Affairs, the Committee on External Economic Relations, the Committee on Social Affairs and Employment, the Committee on Budgets and the Committee on Agriculture for their opinions.

At its meeting of 19 January 1983, the Committee on Energy and Research appointed Mr B. SÄLZER, rapporteur.

The committee considered the Commission proposal and the draft report at its meetings of 15 February, 21 April and 26 May. At the latter meeting the committee unanimously decided to recommend to Parliament approval of the Commission proposal. The committee accordingly adopted the entire motion for a resolution unanimously.

The following took part in the vote: Mrs Walz, chairman; Mr Gallagher and Mr Seligman, vice-chairmen; Mr Sälzer, rapporteur; Mr Adam, Mr Fuchs, Mr Linkohr, Mr Markopoulos, Mr Petronio, Mr Purvis, Mr Rinsche, Mr Sassano, Mr Schall (deputizing for Mr Protopapadakis), Mr Veronesi and Mrs Viehoff (deputizing for Mrs Lizin).

The opinions of the Committee on External Economic Relations, the Committee on Social Affairs and Employment, the Committee on Budgets and the Committee on Agriculture are attached. The opinion of the Committee on Economic and Monetary Affairs is published separately.

The report was tabled on 30 May 1983.

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The Committee on Energy, Research and Technology hereby submits to the European Parliament the following motion for a resolution together with explanatory statement:

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MOTION FOR A RESOLUTION

closing the procedure for consultation of the European Parliament on the proposal from the Commission of the European Communities to the Council for a European scientific and technical strategy: framework programme 1984-1987

The European Parliament,

- having regard to the proposal from the Commission to the Council (COM(82) 865/final),
- having been consulted by the Commission (Doc. 1-57/83),
- having regard to the motion for a resolution by Mr LINKOHR (Doc. 1-1253/82),
- having regard to the Communication from the Commission to the Council on scientific and technical research and the European Community. Proposals for the 1980s (COM(81) 574/final),
- having regard to its previous resolutions, in particular that on the problems and prospects of the common research policy (LINKOHR report)[1],
- having regard to the report of the Committee on Energy, Research and Technology, and to the opinions of the Committee on Economic and Monetary Affairs, the Committee on External Economic Relations, the Committee on Social Affairs and Employment, the Committee on Budgets and the Committee on Agriculture (Doc. 1-382/83),

A. whereas research, technological development and innovation are important factors in technical progress and help to maintain economic prosperity and social security in the Community;

B. whereas the industrial and technological challenge of the USA and Japan represents a threat to the competitiveness of the European Community;

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[1] OJ No. C 334, 20.12.1982, page 76

C. whereas, in those areas of basic research and advanced technology in which European cooperation has managed to recover lost ground (in high energy physics, space travel, air transport and nuclear fusion) the challenge is less daunting and the disparities are less significant;

D. whereas the gap is widening in sectors where European cooperation is virtually non-existent;

E. whereas the Community should do its utmost to translate research achievements into technical innovation;

F. having regard to the great research potential in the Member States and in the Community;

1. Takes the view that the Community must have its own, coherent and efficient policy for science and technology, with the aim of extending European cooperation to all major research projects and technologies;

2. Emphasizes that European research policy of this kind should neither compete with, nor replace, areas of research policy remaining within the jurisdiction of the Member States;

3. Takes the view that the areas of research policy remaining within national jurisdiction should be coordinated by the Community;

4. Considers that related research efforts taking place side by side without any coordination represents a waste of public funds which cannot be justified in the long term;

5. Fundamentally welcomes therefore the Commission proposal for a framework programme, which must become an important instrument in the future shaping of the common research and development policy;

6. Points out at the same time that to do this it needs to be seen as part of the overall political, economic and social conception of the Community;

7. Is therefore of the opinion that the choice of future areas of emphasis and scientific and technical objectives for the framework programme must be based on clearly defined and consistent criteria;

8. Recommends the Commission, in addition to the basic criteria it has adopted, to take particular account of those areas in which neither private sector initiatives nor national promotion measures are sufficient, i.e. when

- the research topic requires wide-ranging studies (e.g. climatic research),

- causes and effects are transnational in character (e.g. all questions of nuclear, biological and chemical safety),
- the preparation and implementation of Community policies is made easier as a result,
- economic and market integration is promoted,
- major projects exceed the capacity of the individual Member States, or, because of the special nature of these projects, the research capabilities are inadequate (e.g. fusion technology, or high temperature reactors); very small programmes should not, on the other hand, be taken into consideration;
- the attainment of joint technological objectives, in the interest of the Community's industrial competitiveness on world markets, calls for speed of decision (e.g. ESPRIT, fifth-generation computers, or biomolecular technology);

9. Agrees with the selection of the seven key areas, subject to the proviso that the proposed rates of increase are only indicative and need to be finally assessed on the basis of individual programmes and plans of action;

10. Welcomes the fact that greater attention is to be given to promoting agricultural and industrial competitiveness in future, although this will still be inadequate in view of the Community's present and future needs;

11. Draws attention, with reference to paragraph 6 of this resolution, to the need to eliminate conflicts of interest between the promotion of biotechnology research and Community agricultural market policy; takes the view that, in spite of all the endeavours of biotechnology research, the European industry's competitiveness will be hampered until the necessary raw materials can be secured at world market prices;

12. Presumes that in the future too resources on at least the previous scale will be made available for energy research so as, for example, to ensure that fusion technology becomes a commercial reality, to safeguard the long-term substitution of oil and gas by coal refining, and to guarantee research into the rational use of energy and thermal energy;

13. Hopes that, in view of the new technologies, greater importance will be attached to the domain of living and working conditions;

14. Considers that greater importance should be attached to environmental research, to promote the study of those sectors where transnational causes and effects require cooperation at international level (e.g. acid rain, climatic research, groundwater supplies);

15. Hopes that international cooperation will be increased, particularly within the context of COST;

16. Calls on the Commission to consider the merits of incorporating in the framework programme a measure to promote a project in the field of progressive reactors for energy generation;

17. Calls on the Commission to examine how far the Community's research and technology policy can take greater account of the needs of the less developed regions;

18. Takes the view that full implementation of the framework programme should proceed exclusively with the typical Community instruments, i.e. direct, indirect, concerted action and demonstration projects;

19. Endorses the Commission proposal for increasing budgetary appropriations for scientific and technical research, which regrettably accounted for only 2.2% of public investment in the Europe of the Ten in 1982 in this sector during the same period; points out that, large though the increase proposed by the Commission may be in percentage terms, it will do nothing to change the insignificance of the Community's stake, since this will account for only some 3% of expenditure by the Ten in 1984;

20. Point out, however, that financial planning should be geared to the research policy needs and not to fixed percentages;

21. Takes the view that, by reorganizing, rationalizing and properly shaping the consultation and decision-making procedures in research and development policy, the Commission can make a contribution to the economical use of budget resources;

22. Takes the view that sizeable economies can be achieved in the national budgets by ministries which spend heavily on research and energy if unnecessary duplication of effort is avoided and a clearing agency, under the aegis of the Commission is created for this purpose;

23. Takes the view that the definition of areas of technology for Community-wide cooperation will be facilitated by a common budget nomenclature in the research and energy budgets of the national ministries;

24. Repeats its call for the publication by the Commission of annual reports of the results of Community research activities;

25. Expects the Commission to adopt the amendments requested in this resolution pursuant to Article 149 of the EEC Treaty, and reserves its final approval until the new Commission proposal has been considered;

26. Instructs its President to forward this resolution to the Council and Commission as Parliament's opinion.

EXPLANATORY STATEMENT

I. Introduction

1. In the framework programme 1984-1987 the Commission submits a medium-term programme and financial plan which, for the first time, embraces all scientific and technical activities of the Community in the field of research, development and demonstration (R, D&D) and sets them in relation to the sectoral policies and tasks of the Community.

2. The Commission sees its proposal as a first step in a continuous process of examination and overall decision-making, which will lead in the years to come to a refinement in quality and quantity. The period 1984-1987 should therefore lay the foundations for an action strategy to be implemented in the course of the 90s. The first thing needed is the gradual implementation of a strategy of adaptation to reorientate, develop and complement the Community's current activities carried out on the basis of the three Treaties.

3. The document represents an appreciable advance over the Commission's previous initiatives in this sphere, which the Committee on Energy and Research had already endorsed before direct elections[1]. In its objectives it complies with the call repeatedly made by this committee and the European Parliament for an independent Community research policy, enabling Europe to successfully meet the economic, industrial and technological challenges of our time[2].

4. Research, technological development and innovation are important factors of technical progress; they therefore make a vital contribution to the maintenance of our economic prosperity and our social security.

   As a result of its extensive dependence on third countries for supplies of natural resources, the European Community has to rely to a

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[1] See HOLST report (Doc. 361/77), OJ No. C 299, 12.12.1977, p.41

[2] LINKOHR report (Doc. 1-654/82), OJ No. C 334, 20.12.1982, p.96

particular extent on a high level of technology in order to maintain its position in international competition. Only in this way can it succeed in the long term in solving the problems of economic structural change, fulfilling social obligations, maintaining present jobs and creating new ones.

5. The European Parliament has repeatedly pointed out that the industrial and technological challenge from the USA and Japan represents a threat to the competitiveness of the European Community. The research capability of the Community (taking only civilian research into account), is a mere 27% less than that of the USA and is twice as great as Japan's.

Twenty percent of the resources devoted to research and development in the world in 1982 was available in the Member States of the Community, and an estimated 350,000 researchers are working in the European Community.

6. Obviously the opportunities offered by this huge research potential are not being fully utilized, otherwise, for example, the lag now evident in the development of new technologies compared with the USA and Japan would not have arisen.

Only by a much increased and more efficient commitment within the Community in the field of research and technology can this ground be made up and long-term competitiveness assured.

II. Practical importance of the framework programme

7. The Committee on Energy and Research therefore fundamentally welcomes the Commission's initiative. The framework programme could and sh become an important tool in the future shaping of the common research and development policy. Of course, to do this, it needs to be seen as part of the overall political, economic and social conception of the Community; it has to be made clear in detail how these measures can help to safeguard progress, the independence of the Community, its economy and the standard of living.

A European research and development policy cannot however take the place of a European economic and industrial policy.

8. In determining future priorities, the main thing is to observe the principles of consistency, continuity, relevance and efficiency, i.e. inter alia

- they must be goal-oriented and task-oriented and in harmony with the overall objectives of the Community;
- they must build on past and present sectoral programmes, but also be adapted to the changes in medium- and long-term development;
- the grounds for action at Community level must be made clear;
- there must be a reference to national research efforts, explaining why they are to be supplemented or replaced by Community measures.

9. The framework programme should serve as a planning basis for budgetary and individual programme decisions, by

- enabling priorities to be set between individual research sectors and permitting discussions over changes in priority or the abandonment of old programmes in favour of new ones,
- helping to avoid subject overlapping between the individual programmes,
- and providing a financial framework which - without being formally binding - indicates the total R & D resources available and thus helps towards the rational preparation of Community measures.

III. Criteria

10. The main question for Community strategy is: what should be promoted by the Community and which sectors should be assisted nationally by the Member States.

Under no circumstances should European research policy attempt to enter into competition with the research policy of the individual Member States or even attempt to replace them. In principle this means that all research projects which, because of their terms of reference and scope, can be satisfactorily carried out under national responsibility, must continue to be undertaken at national level in future.

11. European research policy is not a research policy isolated from the Member States. Its function is therefore to ensure better coordination of related and complementary research projects between the Member States. On the other hand, its function is not to fill in the gaps by undertaking tasks neglected by the Member States.

12. Examining the criteria on which the Commission has based the future priority sectors in its framework programme proposal, it can be seen that they largely coincide with those of the Council decision of January 1974[3], which forms the basis for the development of a Community research policy. The actions to be considered are those:

- for which the human and financial resources required exceed the capabilities of the individual Member States,
- for which a very large or organized market is required,
- for which measures are needed which are, by their nature, international,
- which meet identical or similar collective needs within the Member States,
- which will contribute to the implementation or definition of other Community policies.

13. Your rapporteur regrets the fact that the Commission has relied solely on criteria used previously, which are also sometimes rather general ('similar collective needs') or unclear ('organized market'). If the criteria were expanded or refined, taking account of other aspects sometimes mentioned only briefly in the document, it would definitely make it easier to assess the Commission's setting of priorities and enhance the value of the strategy proposal.

14. The Community's research policy should begin in particular at the point where neither private sector initiatives or national promotion measures are sufficient, for example,

- where the subject of the research requires extensive investigations (e.g. climatic research),

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[3] OJ No. C 7, 29.1.1974

- where causes and effects are international in character (e.g. questions of nuclear, biological and chemical safety),
- where the preparation and implementation of Community policies is made easier as a result (e.g. protection of the environment),
- where econonic and market integration is promoted (e.g. in ESPRIT, metrology),
- where major projects exceed the capacity of the individual Member States (e.g. JET) or because of their special nature the research capability in one Member State is not adequate.

15. The fact that a topic concerns all or most Member States, on the other hand, should not suffice as the sole justification of the need for Community action. The Commission could have a coordinating role in this, to prevent unnecessary duplication and thus a waste of public funds.

16. In this way, by Community-wide coordination of projects, optimum use could be made of the necessary (but limited) resources in many sectors, without the need for Community action. In all these decisions the Commission must ask itself whether the pooling of R&D efforts at Community level actually improves the overall efficiency, or prevents unnecessary duplication and whether it would be better to undertake certain projects on a bilateral or multilateral basis rather than a Community-wide basis.

IV. The Commission's strategy proposal

17. Taking account of the three basic principles

- reinforced priority for scientific and technical activities in the redeployment of the Community's policies and activities (with the allocation of an increasing percentage of human and financial resources),
- an approach based on major scientific and technical objectives
- increasing the scientific and technical potential of the Community

the Commission proposes seven key areas (socio-economic goals) as the basis for a common strategy in the field of science and technology, the scientific and technical objectives associated with them and the appropriations proposed for the period 1984-1987.

COMMUNITY GOALS	SCIENTIFIC AND TECHNICAL OBJECTIVES	
1.Promoting agricultural competitiveness (including fish)	1.1.Development of agricultural competitiveness and improvement of products	
2.Promoting industrial competitiveness	2.1.Elimination and reduction of hindrances	
	2.2.Improvement & develp.of new techniques and products for conventional industry	
	2.3.Promotion & develop.of new technol.	2.3.1. Information technology
		2.3.2. Biotechnology
3.Improving the management of raw materials	3.1,Optimal use of raw materials (including recycling them)	
4.Improving the management of energy resources & reducing energy dependence	4.1.The develop.of nuclear fission energy, esp. safety aspects	
	4.2.Controlled thermonuclear fusion (JET)	
	4.3.The develp.of renewable sources of energy	
	4.4.Rational use of energy (analysis of systems, hydrocarbons,coal,energy saving)	
5.Reinforcing development aid	5.1.The implementation of S/T activities which benefit developing countries	
6.Improving living and working conditions	6.1.Improvement of safety and protection of health	
	6.2.Protection of the environment (and prevention of hazards)	
7. Improving the efficacy of the EEC's S/T potential (Stimulation)		

18. If the system of goals and objectives proposed for the framework programme is applied to the Community's present R&D activities, the following picture of priorities emerges (1982 budget):

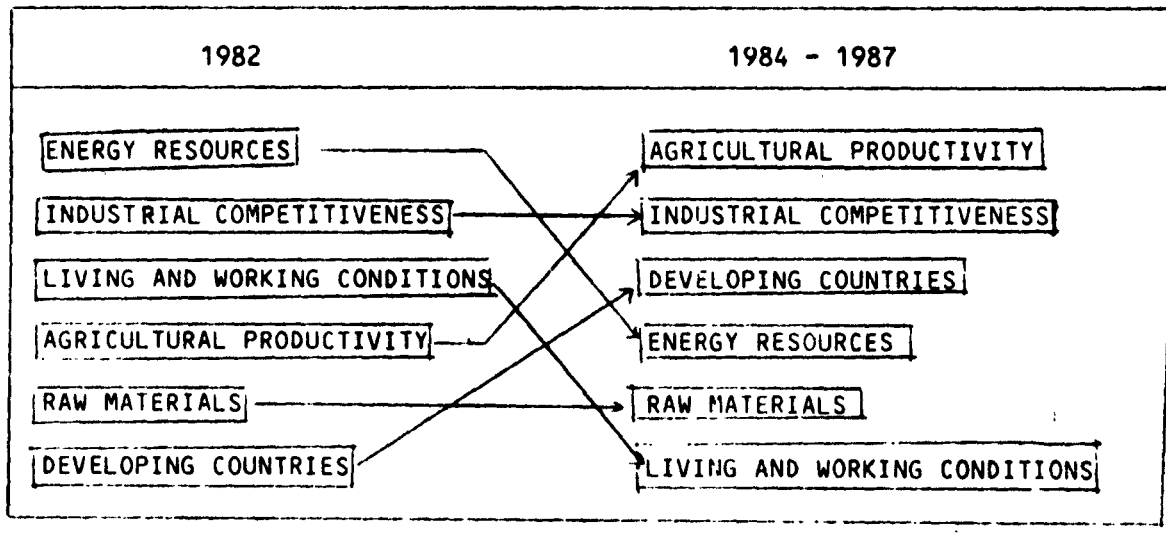
- clear priority given to improving the management of energy resources (63.66% of Community funds)

- much less importance attached to promoting industrial competitiveness (18.46%)
- quite marked interest in improving living and working conditions (10.15%)
- limited interest in promoting agricultural competitiveness (1.86%)
- incipient efforts to improve the management of raw materials (1.36%)
- almost complete lack of R&D activities for the benefit of developing countries (0.67%)

19. In the framework programme for the period 1984-1987 the Commission is now proposing a clear reorganization and alteration of the existing guidelines. The improvement of agricultural and industrial competitiveness, and R&D activities for the benefit of developing countries are to be given definite priority with high rates of growth. This also applies to a lesser extent to improving the management of raw materials.

Improving the management of energy resources, on the other hand, will not be given the absolute priority accorded to it in the seventies. The measures to improve living and working conditions and the horizontal actions are merely to be retained and slightly developed.

Shift in OVERALL OBJECTIVES in the field of science and technology



20. If the figures in the 1982 budget are compared with the Commission's estimates for the period 1984 - 1987 (1982 prices), the following picture emerges when assessing the scientific and technical objectives within the seven basic goals:

- two to four-fold increase for
  agricultural research, information and biotechnology, renewable energy sources, rational energy use, R&D for developing countries, stimulation measures
- smaller increase for technologies in traditional industries, raw materials, nuclear energy, environment, horizontal actions
- no increase or even reduction for fusion, health and safety

Scientific and technical objectives	Average annual appropriations			
	1982		1984 - 1987	
	m ECU	%	m ECU	%
1. Agriculture and fisheries	11,00	1.36	32,5	3.5
2. Industry	108,96	18.46	265	28.3
2.1. Removal of obstacles	4,35	0.74	7,5	0.8
2.2. Traditional industries	49,99	8.47	87,5	9.3
2.3. New technologies	54,62	9.25	170	18.1
3. Raw materials	8,00	1.36	20	2.1
4. Energy sector	375,72	63.46	462,5	49.3
4.1. Nuclear fission	114,35	19.37	135	14.4
4.2. Thermonuclear fusion	179,47	30.41	120	12.8
4.3. Renewable energy sources	21,32	3.62	77,5	8.3
4.4. Rational use of energy	60,58	10.26	130	13.9
5. Developing countries	3,96	0.67	37,5	4.0
6. Living and working conditions	59,92	10.15	67,5	7.2
6.1. Safety and health	32,24	5.46	27,5	2.9
6.2. Environment	27,68	4.69	40	4.3
7. Stimulation	-	-	25	2.7
Horizontal actions	32,68	3.84	27,5	2.9
TOTAL	590,25	100	937,5(*)	100

Framework programme 1984-1987 in 1982 values Total: 3,750 m ECU

(*) of which 175 m ECU are already accounted for by existing multi-annual research programmes which extend into the 1984-1987 phase.

21. The Committee on Energy and Research can basically approve the selection of the seven major goals as areas of enphasis for the Community's future research and technology policy, although it considers the details of the framework programme as still inadequate for its final evaluation of the individual goals.

In particular, it would seem necessary to indicate in the framework programme the cross-links with national measures, to give a breakdown of the measures already decided for the individual years and to explain for each goal why action at Community level seems necessary. No such analysis exists as yet.

22. In the view of the committee the rates of increase envisaged for the individual scientific and technical objectives can only serve as an indication at present. A final assessment of the measures will not be possible until decision are taken on the individual programmes and plans of action and this will only be possible as part of the budget procedure.

23. With these reservations, however, it can be said that the list of priorities largely conforms with the Parliament's demands and suggestions, as set out in particular in the resolution of 2 December 1982 on the problems and prospects of a common research policy (LINKOHR report)[4].

24. The committee welcomes the fact that, despite some adjustment of priorities, energy research will still account for some 50% of the total R&D resources of the Community in the general budget, although it considers it questionable to fix the appropriations for thermonuclear fusion research at the present level and recommends that advanced reactor systems be included in the framework programme.

25. The committee also considers that greater importance must be given to environmental research. The Commission should examine whether the Community can make a greater contribution to the study of those questions which have transnational causes and effects and require cooperation at international level: the problems mainly involved are those of acid rain, climatic research and the safeguarding of ground water supplies over the long term.

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[4] OJ No. C 334 of 20.12.1982, p.96

26. We are somewhat sceptical about the measures to promote traditional industries. The primary aim should be to promote the development and use of key technologies, instead of setting out secondary programmes for industries in crisis, leading to misdirection of economic resources. The promotion of key technologies not only helps the development of new industries, it can also produce solutions for the problems of the traditional sectors of indsutry.

27. In general the Commission should take greater account of the needs of the less developed regions of the Community when drawing up future research and technology policy measures. In particular, it should be considered whether research contracts could not be awarded selectively to specific regions to encourage those regions to make greater use of their own potential for innovation.

V. Financial resources and procedures

28. Under the Commission proposals the Community's R&D resources (1982 = 590.25 m ECU) will be increased to an average of 937.5 m ECU (without allowing for inflation) over the period 1984 - 1987 i.e. by more than 50% in real terms. Taking an average inflation rate of 7-8%, the annual average would thus be about 1,200 m ECU. The share of R&D resources in the Community's overall budget would accordingly have to be increased from the present 2.6% to 4% per year.

29. The call for research and development to have a greater share of the Community budget is generally to be approved; it is also in line with the committee's present views. It is doubtful, however, whether the 4% figure suggested by the Commission can still be financed within the 1% VAT ceiling.

The additional resources can therefore only be achieved by restructuring the Community budget. This reorganization to provide research funds for new projects will only be possible, however, after the question of which other policy areas will suffer as a result has been thoroughly examined.

30. The Commission is therefore asked to make detailed proposals on the financing of the future research activities. Planning should be based on research policy needs rather than fixed percentages.

31. More details must also be given of the extra staff requirements expected. However, the Commission should work on the premise that the creation of new institutions, centres or laboratories is not desirable, but rather that optimum use should be made of the existing national and Community centres, to achieve the proper use of staff and financial resources.

32. In this connection, the committee would have liked to see a more detailed Commission proposal to involve the Joint Research Centre in the future framework programme. Even though, as the Commission mentions, the JRC's new four-year programme is still awaited, it should nevertheless be possible to indicate the future allocation of functions and tasks with the aid of the individual goals and scientific and technical objectives of the framework programme.

33. The committee welcomes the fact that in the future R&D programmes the Commission will continue to make use of the now established policy of action programmes, which embraces direct, indirect and concerted action within a subject area. Application of this policy to other research sectors could result in standardization and therefore more logical planning and implementation of research in the Community.

34. It may be pointed out to the Commission that the proposal for a long-term research strategy is an appropriate opportunity for analysing the individual structures and procedures, advisory bodies and decision-making processes to determine their present effect. What is needed above all is a 'thinning-out' of the extensive consultation machinery, so that R&D policy is freed of the burden of excessively bureaucratic structures.

35. The Commission should consider whether, instead of the fragmentation into sectoral bodies, a supreme science council could not be used, given an appropriate mandate by the Council for the whole framework programme and responsible for its future shaping.

VI. Conclusions

36. The Committee on Energy and Research welcomes the proposal for a framework programme as an important step towards a restructured and soundly based Community policy on science and technology.

37. Bearing in mind the suggestions and criticisms contained in the above explanatory statement, the committee expects the Commission to revise its proposal and to give more precise details of the financial resources and staff required. The increase which the Commission wants in the proportion of the total budget assigned to R&D is approved, subject to concrete proposals for the reorganization of the budget.

O P I N I O N

of the Committee on Budgets

Draftsman: Mrs NIKOLAOU

On 17 March 1983, the Committee on Budgets appointed Mrs Nikolaou draftsman of the opinion.

The Committee considered the draft opinion at its meeting of 25/26 May 1983 and adopted it by 12 votes to 0 with 3 abstentions.

The following took part in the vote: Mr Lange, Chairman; Mr Notenboom and Mrs Barbarella, Vice-Chairmen; Mrs Nikolaou, draftsman; Mr Abens, Mr Arndt, Mr Baillot, Mr Balfour, Mr Gouthier, Mr Klepsch (deputizing for Mr Adonnino), Mr Langes, Mr Louwes, Mr Orlandi, Mr Price, Mr Saby, Mr Konrad Schon and Mrs Scrivener.

I. INTRODUCTION

1. This proposal concerns a first general framework for the Community's research and development activities, to cover the years 1984 to 1987.

2. Community research activity was initially limited to fields covered by the ECSC and Euratom Treaties, with the EEC Treaty referring only to agricultural research, but a 1974 Council resolution (OJ C 7, 1974) on coordination and projects of interest to the Community provided for research work in other fields, on the basis of Article 235 of the EEC Treaty. In 1977 the Commission drew together the threads of the Community's activities in a draft common policy for science and technology (OJ C 187, 1977), but only certain projects were adopted as a consequence of this and progress since has continued to be fragmentary in nature.

3. Research being of fundamental importance to modern society, and to meeting the challenges facing Europe today, it is vital to inject some order and vitality into the Community's research activities. A Commission communication (COM(81) 574) and Parliament's Linkohr report on the problems and prospects for a common research policy (Doc. 1-654/82; OJ C 334, 1982) have been followed by a series of proposals (on which Parliament has given or is giving its opinion) on:

- the subject areas for research, as proposed in the framework programme (subject of this opinion) covering all types of Community action. The FAST technology forecasting programme (COM(82) 855) should help orient the programme, and directly-administered research activities should fit within it: following two preparatory documents (COM(82) 250 and COM(83) 107) a definitive proposal for the JRC's 1984-87 programme is awaited.

- improvements to administrative structures, in particular a drastic simplification of the system of Commission and Council advisory committees (COM(83) 143), and the creation of a JRC Council (COM(83) 111).

- measures to make better use of the Community's scientific capability, through (a) stimulation of potential (COM(82) 322, 493, 808), (b) innovation and technology transfer (COM(82) 251), and (c) better evaluation and dissemination of research results (COM(83) 18).

II. CONTENT OF THE PROPOSAL FOR A FRAMEWORK PROGRAMME

4. The proposal sets out: the challenges to be faced: inflation and unemployment, declining competitive capacity, and the implications for society of new technologies, together with limited raw material resources and the need for intensified cooperation with LDCs. The proposal also outlines the international context in which EC civilian research spending amounts to about 80% of the US level and twice the Japanese level, but is bedevilled by too much duplication and inappropriate objectives, as well as some gaps, a lack of multidisciplinary research and declining productivity in carrying out research.

5. The Commission suggests that a common strategy should give greater priority to the research sector, develop an objective-based approach, and strive for greater effectiveness of research effort. In concrete terms, this analysis leads the Commission to propose seven main "goals", each with an indicated level of funding, as follows (amounts for 1984-87, in 1982 prices):

		mECU	% share of total	% share 1982
Agriculture		130	3.7	(1.9)
Industry - elimination of hindrances	30)			
- technique for conventional industry	350)	1,080	30.3	(18.5)
- new technology - informatics	600)			
- biotechnology	80)			
Raw materials		80+	2.2	(1.4)
Energy - nuclear fission (safety)	540)			
- thermonuclear fission (JET)	480)	1,850	52.0	(63.7)
- renewable sources	310)			
- rational use of energy	520)			
Development aid		150+	4.2	(0.7)
Living and working conditions - health and safety	110)	270	7.6	(10.2)
- environment	160)			
Efficacity of EEC's scientific/technical potential		up to 5% of total	-	
		Total 1984-87 = 3,560 approx.		Total 1982 = 590 mECU

6. The Commission concludes by inviting Council and Parliament to

- take a view on the scientific and technical objectives, their relative priority, and the implied minimum outlay;
- express their agreement that funding for Community research, development and demonstration activities should, by the end of the 1984-87 period, reach about 4% per year of Community resources.

III. OBSERVATIONS ON THE FRAMEWORK PROGRAMME

General observations

7. There is unlikely to be much argument about the challenges facing Europe today, which the Commission takes as its starting point, and which are summarised in paragraph 4 above. Nor can the necessity for a European dimension to research really be doubted - the scope for reducing duplicated effort and stimulating the exchange of ideas is obvious. But any attempt to provide a "framework" for the Community's research effort has to take account of certain realities: the whole European research effort amounts to around 2% of GDP and is highly concentrated geographically; the Community funds 1-1$^{1}/_{2}$% of this total; the choices made in allocating Community resources will inevitably reflect Community priorities but this important limitation means that many worthwhile projects have to be financed nationally; the existence of large Community research institutions concentrated in one or two locations.

8. This opinion cannot fully discuss the role of research in our society, but it should be clear that the challenges facing Europe today reach beyond the industrial sector. Research is vital to the productive sector, of course, but has also an importance for the general intellectual health of our society which should not be overlooked, especially in a document purporting to provide a "framework". The stress on industrial research in the proposed framework programme is not wrong but it does need to be complemented.

9. The scale of operations in the US and Japan entails a greater efficiency of research effort. The Community is central to creating the same economies of scale in Europe, both in performing research and in exploiting its results. In supporting research via the Community, however, Member States will want to be assured that all have an interest in and benefit from the range of programmes undertaken.

Nature of the research

10. Even within the limited - industrial - perspective of the Commission's proposal, a number of important issues are not discussed:

(a) the industrial exploitation of research. This is one of the great strengths of the Japanese economy but the Community has to bear in mind its own competition laws which limit cooperation between enterprises.

(b) the integration of defence-related research into the general research effort, and the exploitation of its results.

(c) the role of pure research. Interest is increasing rapidly in fields such as robotics, "expert" computer systems and artificial intelligence, and such initially pure research has lead quite quickly to commercially-significant results (e.g. in biotechnology); some work is already undertaken at the European level (e.g. CERN).

11. It is worrying that a proposal laying out the framework for Community research by-passes questions of such importance, even though answers to them are neither easy to find nor easy to accept.

Carrying out the research

12. If the Commission document disappoints in its discussion of the role of research, it is silent on the conditions for carrying out research successfully at the European level. Section II of the Commission proposal explains some of the reasons behind the poor efficiency of European research. Symptomatic of the inefficiencies encountered within the Community are delays in taking decisions (which so affected the JET and Super Sara projects), and the not really satisfactory utilisation rate for appropriations.

13. In trying to establish parameters for successful European research, two approaches are certainly valid for the type of project to be undertaken:

- large projects so expensive that they are only undertaken in cooperation, and which constitute the major part of the European effort in the field (e.g. JET and fusion research);
- simple coordination to minimise duplication and improve dissemination of results (e.g. various COST programmes);

- programmes of common interest, e.g. on the environment, migrant workers, and the distribution of research results.

14. In other cases, it is doubtful if Community action (direct or indirect) is particularly useful if it is thinly spread at an insignificant level of funding relative to Member States' expenditure. A research programme only acquires a real "community" aspect if it provides a degree of focussing for (but not domination of) Member States' efforts, and the level of Community funding should be such as to achieve this.

15. Historically the Community has supported research in the three main ways: (a) direct action at JRC establishments, (b) indirect action (funding university research etc.), and (c) via a special body set up for fusion research (JET) which combined elements of both approaches. There have been problems with each: management problems and an unfavourable age structure at the JRC, for example, which takes just under half the appropriations; on the other hand, indirect programmes have suffered procedural delays in getting underway.

16. Considerations for <u>how</u> the Community should undertake research might therefore include:

- setting long term strategic objectives and financing actions consistent with these and which dovetail with Member States' own efforts;
- using existing facilities more efficiently (including support for investment in research infrastructure via indirect action);
- organising major projects so as to improve scrutiny and to ease winding-up at the end of the project;
- aiming in the long term to break down the distinction between direct and indirect action by inviting proposals for any particular programme, including from the Community's own establishments;
- enhancing cooperation of the COST type including with existing international research organisations.

<u>Orientation of the programme</u>

17. It is for the Committee on Energy and Research to comment most fully on this aspect of the proposal, although some remarks are relevant:

at present around 40% of appropriations for research are devoted to work on thermonuclear fusion, 30% to work on nuclear safety, and the remaining 30% to non-nuclear research. Parliament has consistently supported the development of non-nuclear research so as to provide a better balance of effort. Under the framework programme, the major nuclear programmes would continue, with important new sums for informatics and for conventional industry research. These technologies have serious implications for employment, and the technocratic thrust of the proposal needs to be complemented by research on social questions such as unemployment, migration of workers, and the unequal distribution of economic resources.

18. It should also be remarked that the seven "goals" reflect much more the research activity underway than the conclusions of the first FAST technology forecasting programme, which considered some of the gaps mentioned in paragraph 8 above. It should also be noted that the individual programmes are adopted separately and not as a complete package: whereas the framework programme foresees the agricultural research programme amounting to 130 mECU for 1984/87, for example, the individual proposal (COM(82) 853) estimates the necessary appropriations at 65 mECU, for a longer period. In such a context it is rather difficult to make a judgment on relative priorities.

IV. FINANCIAL AND BUDGETARY ASPECTS

19. The Community devotes 1.9% of its GDP to research (including both private and public sector funding, and covering defence), while the United States spends about 2.4%; these figures are static. The Japanese research effort is mounting rapidly, however, from around 2.0% today to around 3% by 1990. The Community budget is minute in comparison with Community GDP or even Member States' own public expenditure, amounting to around 1% of the former and less than 3% of the latter. Although Community funding for research is not going to affect the overall financial picture very much, it can certainly have an important function if concentrated in particular fields and efficiently spent.

20. There must be some hesitancy in supporting any particular target percentage for expenditure, although this does concentrate minds on setting priorities. Recognition that the challenges are substantial and confidence that there can be an efficient Community research effort will ensure that research is given a higher priority.

21. There are two further objections to supporting a particular target percentage:

(a) The Community budget is near the limit of its own resources and the sort of increase envisaged may exhaust the funds remaining available. The discussions on new own resources and balance in the budget are of fundamental importance; new resources may be agreed, but the Commission nowhere suggests where the funds might be found if this is not the case.

(b) Formally the budget is an annual budget. Difficulties arise for multiannual programmes - Parliament accepts that estimates be made for the future, but these amounts are subject to confirmation during the annual budgetary procedure. That amounts mentioned in regulations are merely indicative in nature was confirmed by the 30 June Declaration.

22. The framework proposal envisages an overall amount of approximately 3,600 mECU, and although not set out in the Commission proposal the phasing of expenditure is expected to be of the order of

1984	1985	1986	1987	mECU
835	905	970	1.040	(1982 price:

The appropriations foreseen for 1984 therefore represent an increase of the order of 40% over those for 1982, with substantial increases in following years. Whatever the desirability of the overall amount proposed there must be doubt as to whether such an increase can be efficiently spent in the first year given the slow build-up of activity on indirect programmes noted by the Court of Auditors and the historic rate of utilisation of funds by the JRC (around 80%).

23. The present layout of the budget in the research sector has always been confusing because of the multiplicity of lines, the inclusion of diverse activities under some lines, gross disparities between the appropriations of some lines compared with others and so on. This has made it very difficult to form an overall picture of the orientation of the Community's research effort, and the Commission should renew its efforts to present the budget in a way which can be readily related to the seven goals outlined in the framework programme.

V. CONCLUSIONS

24. The Commission's attempt to work out a four-year framework programme for a European scientific and technical strategy is a welcome step in the fight to reduce Europe's technological dependence, with the weaknesses that implies for foreign, industrial and trade policies. The Commission's proposal, however, fails to provide a real 'framework' of strategic objectives for Community research and in particular fails to discuss either the role of research in meeting the challenges faced by the Community or the parameters for an effective European research effort. The series of proposals now on the table put order into present activities but hardly provide a new beginning.

The Committee on Budgets

With regard to the orientation of the programme

(a) notes that the proposal stresses technology-oriented research, and that research in the social sciences and pure research are inadequantely covered.

With regard to the budget

(b) believes that research is a sector where the Community has an important role to play and could therefore agree to view favourably expenditure substantially above present levels provided that it is devoted to projects of a nature to be efficiently carried out at the European level and that it is effectively spent.

(c) recalls that the efficiency of European research is low due to (a) the duplication of effort resulting from the lack of coordination within the Community and the lack of cooperation with other international organizations engaged in research and (b) inappropriate objectives, lack of multidisciplinary research and declining productivity in carrying out research.

(d) recalls, in view of the large increase of expenditure proposed, that the Court of Auditors has outlined delays in getting indirect action programmes underway and that the rate of utilisation of funds for direct action has been of the order of 80%.

(e) considers that the level of expenditure proposed is necessary if the present challenges are to be met.

(f) considers that it cannot commit itself to setting aside a fixed percentage of Community expenditure for research activities.

(g) considers that the layout of the draft budget should allow a clear picture of the orientation of the overall research effort to be made.

With regard to carrying out research

(h) considers that individual Community research programmes will be most effective if they aim to provide a policy focus for Member States' activities; that this objective is unlikely to be achieved if funding for individual programmes (other than coordination activities) is insignificant compared to Member Statess' expenditure in the same field; and that the information needed to justify Community involvement should be included in any specific Commission proposal.

(i) considers that both direct and indirect actions are needed to meet the goals specified, and that the effectiveness of both types of action needs to be reviewed.

(j) recalls past management problems at the JRC and therefore believes that proposals for the 1984-87 period should reflect realistically the possibilities for effective action.

(k) considers that the utilisation of appropriations ought to be improved.

(l) considers that the Commission should minimise duplication by better coordination of community research, and through a larger Community presence in international organizations engaged in research;

and asks the Committee on Energy and Research to include these points in its draft motion for a resolution.

OPINION

(Rule 101)

of the Committee on External Economic Relations

Draftsman: Sir Jack STEWART-CLARK

On 24 March 1983 the Committee on External Economic Relations appointed Sir Jack STEWART-CLARK draftsman.

At its meeting of 25 May 1983 the committee considered the draft opinion. It adopted the conclusions on 25 May 1983 unanimously.

The following took part in the vote: Mrs WIECZOREK-ZEUL, 1st vice-chairman and acting chairman; Mr SEAL, 3rd vice-chairman; Sir Jack STEWART-CLARK, draftsman; Mr GAUTHIER (deputizing for Mr BORD); Miss HOOPER; Mr B. NIELSEN (deputizing for Mrs PRUVOT); Mrs PHLIX (deputizing for Mr JONKER); Mr RIEGER and Mr SEELER.

Analysis of the Commission's proposal

The Commission is presenting the first general framework programme for scientific and technical research, development and demonstration activities (R, D and D) for the European Community for the years 1984-1987.

The Commission identifies seven fundamental objectives:
- promotion of agricultural competitiveness;
- promotion of industrial competitiveness;
- improvement in the management of raw materials;
- improvement in the management of energy resources;
- strengthening of aid to developing countries;
- improvement in living and working conditions;
- better exploitation of the Community scientific and technical potential.

The amounts put forward by the Commission for scientific and technical objectives in the years 1984-1987 compare with the year 1982 in the following way (see Annex I).

A number of objectives mentioned by the Commission directly or indirectly concern the RFX Committee

(a) The battle against the economic crisis with its attendant inflation and unemployment.

(b) The unstable competitive capacity of the vast majority of Member States.

(c) The need to improve the management of energy and raw material resources.

(d) The need to intensify relations and cooperation with developing countries, and the fight against the gradually increasing North/North and North/South technological imbalances.

Promoting agricultural competitiveness (including fishing)

The Commission recommends:

(a) The use of waste to produce energy on the farm so as to help cut energy costs.

(b) The production of biomass (fuel crops such as fast-growing plants, etc.)

(c) The better integration of agriculture in marginal regions (particularly in Mediterranean regions) by associating it with other regional activities.

(d) The conversion and promotion of certain crops (maize, tobacco, and high-protein animal feeding stuffs) to replace traditional surplus crops by crops that will make up market shortfalls.

(e) General improvement in the quality of food both for internal consumption and in order to increase exports.

(f) For fishing: evaluation of resources, selective catching techniques, product processing, interaction between species and their environment, and aquaculture.

Improving industrial research

(a) Removing and reducing impediments by improving measurement methods and preparing and certifying reference materials.

(b) Microelectronics (VLSI circuits).
Europe absorbs 20% of the integrated circuit market but only produces 6%. Efforts must focus on submicron geometries.

(c) Software engineering
European-wide cooperation is called for to make best use of the human resources available, so as to improve generating techniques for 'reusable' modular software needed to control the new generation of advanced information processing systems.

(d) Advanced information processing

(e) Office automation. Machine translation is of particular importance at Community level.

(f) Integrated flexible manufacturing, which has a very large potential market.

(g) Promotion of biotechnology, which has a number of applications that have a direct effect on the market.

Management of raw materials

(a) Recycling

(b) Substitutes and the development of new techniques and new products for the conventional industries.

The REX Committee's proposals

By its very nature a framework programme which spans a four-year period in European technical and scientific strategy will be broad and the Commission'S document[1] is no exception. Although long and at times diffuse it does endeavour to identify areas of research and allocate priorities.

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[1] Doc. 1-57/83 - COM(82) 865 final

The objectives of the report are firstly to specify those socio-economic goals which are to form the basis of a common strategy in science and technology to be embarked upon during the years 1984 to 1987 for implementation during the 1990s. Secondly, it is the objective to highlight suitable areas for Community cooperation and to put forward relative weightings in terms of Community effort and expenditure.

The Commission propose that a minimum sum of 3,700 million ECU or approximately 4% of total Community resources should be allocated by the end of the period 1984-87. This compares to the current expenditure within the Community on scientific and technical research of 2.7%. The proposed sum is recognised as being high by the Commission, but it is pointed out that currently much duplication is taking place throughout the Community. Therefore a transfer of resources is recommended to achieve coordination and joint growth. This will yield greater results than a continuation of existing national policies in those areas of research where a joint approach can clearly be more effective.

The draftsman of this opinion is at one with the Council in welcoming the document as a positive contribution to optimising research and development on a Community basis. There are, however, a number of areas where REX wishes to express reservations in regard to individual options and objectives.

The Commission put forward as a major goal the promotion of research to increase agricultural competitivity. Where these can be related to a reduction in the need for imports, an increase in self-sufficiency, the means to reduce surpluses and an increase in the quality of food, these should be supported. There are we believe, however, dangers in providing research to increase agricultural efficiency when these self-same measures may increase the incidence of food surpluses. Sir Fred Catherwood's report[1] has pointed all too clearly to the adverse effects to Community relationships of large-scale exports of agricultural products which are in surplus. These not only destabilise world food prices but also perpetuate the heavy agricultural burden on the Community of operating the "Guarantee Fund" of the CAP. The draftsman therefore recommends to the Commission the absolute necessity for ensuring that money spent on research and development in the agricultural field should not lead to a perpetuation or increase in the problem of surpluses.

Monies to be spent on research into the improvement of the management of raw materials and energy resources are to be encouraged. At present the Community is dependent on imports of raw materials for 75% of all products needed to sustain Community productive effort. Equally the provision of cheaper, cleaner and

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[1] Doc. 1-248/83

more efficient energy supplies must of necessity be decisive factors in assessing the potential competitivity of Community industry. Both raw materials and energy will continue to be major factors in the cost and quality of manufactured products; consequently continuing research in these spheres will be vital.

In this area of materials and energy resources, it is interesting to see that the Japanese in MITI's forward plan for research and development identify the following areas as being of major importance:

1. Overcoming energy restraints
   - the harnessing of nuclear power
   - new forms of energy: solar, geothermal, hydrogen based
   - liquefaction of coal and gas
2. Energy saving
   - high efficiency gas turbines
   - insulation techniques
   - developing domestic and industrial machines and appliances capable of using less energy.
3. The development of new materials to support technical innovations in the 1990s including fine ceramics, new metals and compound materials.

We note from the Commission's proposals that stress is laid upon the protection of the environment and the improvement of the health and safety of the workforce. We would agree that the essentially shared nature of many of the problems make them ideally suited for a Community approach. We would like to see in this field a statement of intent to share adequate knowledge with the developing countries of the world. Indeed we believe in all areas of research possible; a positive commitment should be made to assist developing countries either by involving their assistance in development projects or as is more likely through the dissemination of knowledge found and created through our Community research and development projects. Having stated this however one must exercise care in not too freely disposing of information acquired through research which could affect the Community's industrial competitivity.

Turning specifically to the area of industry, we consider this is a field in which the greatest degree of Community effort should be directed. This applies particularly to high technology. No one will doubt that the United States with its significant natural and industrial resources are aided by its space and defence effort in leading the world in most areas of high technology. This will continue. However, Japan is catching up fast in many areas. Again, MITI's forward research and development plans show the following areas which are being concentrated on in research and development throughout the late 1980s.

1. Information Industry
   - 4th and 5th generation computers
2. Communication Technology
   - Optical fibre transmission
   - Laser technology
3. Space Industry
   - Observation satellites
4. Biotechnology
   - Utilisation of micro-organisms for industry, including genetic recombinations, cell fusions and bio-reactors.
5. Technology providing new functions for advanced electronic techniques
   - Stacked ICs
   - Super lattice elements

The Japanese are very specific in the areas of high technology upon which they will concentrate. Government will provide the money in combination with industry to help fund these specific projects. The guidance of MITI is however always present to ensure a disciplined approach to the marshalling of Government, university and industry research and development resources on a structured and role-playing basis. The Community must learn from this. Perhaps because of the very breadth of the field it is covering, the Commission document is too diffuse.

It is a major recommendation of this draftsman that research and development projects should be specifically identified and monies released only against criteria which include an analysis of the precise benefits to be achieved, the exact roles to be played by individual governments and industries and a specific statement of estimated timing and costs to be involved.

Europeanisation of research certainly should not be an end in itself. Research and development is needed on a European scale to accelerate the pace of development in specific and identified areas of technology where major efforts are required in a short time scale to keep pace with or beat our competitors aborad. It is to avoid expensive duplication and to make maximum use of the Community's considerable resources at government, industry and university levels that this Community scheme should be encouraged.

The Commissison are asked to look at the development which is being carried out in Japan in creating 'science cities'. These are towns normally containing universities where high technology laboratories funded by government are situated and where industry is closely interlinked. AIST (Association of Industry, Science and Technology), a part

of MITI, masterminds the operation of these laboratories. Within the United Kingdom there is already a move to encourage 'science parks' on or near universities.

It is evident as the Commission's report points out that it is in just those spheres where Community cooperation is at a minimum that the gap is greatest between the USA and Japan on the one hand and the Community on the other. Adequate resources have neither been allocated nor utilised on a Community-wide scale to be properly effective in these areas. In 1982 only 18.46% of Community research resources were allocated to research in the industrial technological field. This we believe to be totally inadequate and we support a substantial increase taking place within the framework programme up to and beyond 1987.

It may well be in the future that the Community is not able to undertake all research and development within its borders and that technology will need to be purchased from outside Europe in areas where other countries are advanced in the state of a particular art and where there seems little hope of closing the gap. Clearly intelligent identification and purchase of such outside technology is to be recommended, especially when the time-scale for the financial resources for development on our own are too great. We can learn much in this regard from the Japanese who have successfully borrowed or bought technology over the past three decades.

The Committee is of the view that whilst R & D expenditure is of vital importance to the future of the Community in all areas covered it nonetheless brings the Commission's attention to the risk of R & D subsidies being used at some stage or other as a weapon in a trade war. The Commission should therefore endeavour to encourage as much transparency as possible in their dealings with the USA, Japan and the Third World in R & D matters whilst always ensuring that reciprocity and fair dealing is observed.

Affairs and Employment therefore does not wish to draw up a separate opinion on this matter but would like the Committee on Energy and Research to consider these social aspects in its report in view of their great significance for the development of Europe.

Yours sincerely,

E. PAPAEFSTRATIOU

Present: Mr Papaefstratiou, chairman; Mr Frischmann, vice-chairman; Mr Alexiadis, substitute; Mr Bournias (deputizing for Mr McCartin), Mr Calvez, Mr Chanterie, Mr Dalsass (deputizing for Mrs Cassanmagnago Ceretti), Mr Davern (deputizing for Miss de Valera), Mr Estgen, Mrs Maij-Weggen, Mr Patterson, Mrs Pauwelyn, Mr Tuckman and MrVgenopoulos (deputizing for Mrs Charzat).

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- Mrs SALISCH - on the repercussions of energy problems and technological developments on the level of employment in the Communities - Doc. 1-164/81, OJ C 260, 12.10.81
- Mr PAPAEFSTRATIOU - on the employment policy in the European Community (in preparation for the November 1982 meeting of the 'Jumbo' Council) - Doc. 1-646/82, OJ C 292, 8.11.82
- Mr NIELSEN - on the Communication from the Commission of the European Communities to the Council on vocational training and new information technologies: new Community initiatives during the period 1983 - 1987
- on the draft resolution of the Council concerning training policies in the European Communities in the 1980s - Doc. 1-1363/82/I
- Mrs SALISCH - on the problem of youth unemployment - Doc. 1-86/83
- Mr PAPAEFSTRATIOU - on the employment situation in the European Community - Doc. 1-87/83

10.5.1983

OPINION

(Rule 101)

of the Committee on Agriculture

Draftsman: Mr F. GAUTIER

The Committee on Agriculture appointed Mr GAUTIER draftsman.

It considered the draft opinion at its meeting of 27 May 1983 and adopted the conclusions unanimously.

The following took part in the vote: Mr CURRY, chairman and deputy draftsman; Mr COLLESELLI and Mr DELATTE, vice-chairmen; Mrs BARBARELLA (deputizing for Mr PAPAPIETRO), Mr CLINTON, Mr DALSASS, Mr HELMS, Mrs HERKLOTZ, Mr KLEPSCH (deputizing for Mr BOCKLET), Mr VERNIMMEN, Mr VGENOPOULOS and Mr VITALE.

1. Background

For some years now all the institutions of the Community have felt a need for coordination at European level of the enormous research potential which exists both within the Member States and in the Community context.

The Council therefore requested the Commission to propose a framework programme for research in the Community designed on the one hand to help to solve current problems and on the other to make provision for the future.

The aim of the Commission's communication on the proposals for a European scientific and technical strategy is to secure a verdict from the Council and the European Parliament concerning 'the amount and orientations of the outlay to be allocated at Community level to science and technology in relation to other Community activities and policies and in relation to the scientific and technical activities and policies of the Member States' (COM(82) 865 final, p. 2).

Basing its work on an analysis of the present socio-economic situation in the Member States, key developments in the longer-term and the research potential existing in the individual Member States of the Community, the Commission has tried to draw up an overall strategy for future research policy.

2. Basis of the proposals

The common strategy is based on three fundamental principles:

- reinforced priority for scientific and technical activities;
- an objective-based approach;
- a sustained effort to stimulate the efficacy of the Community's potential.

Starting from a selection of goals and specific objectives, the Commission, in collaboration with leading figures from the scientific and industrial worlds, has drawn up plans for each objective and, on the basis of these plans, has proposed seven programme goals. The first goal set out in the Commission's document is entitled 'Promoting agricultural competitiveness (including fish)'.

2. The agricultural programme

The importance of research to agriculture need not be stressed here. It has already been explained at length in the report by the Committee on Agriculture on the proposal for a Council decision adopting joint research programmes and programmes coordinating agricultural research (COM(82) 853 final).

After discussions with representatives of DG VI (responsible for the agricultural research programme) and representatives of Commission DG XII (responsible for the framework programme), the draftsman has formed the view that the main features of the 'agriculture' goal in the framework programme are consistent with the agricultural research programme.

The chapter in the framework programme relating to research in the fisheries sector, does not appear in the specific agricultural research programme since the subject falls within the terms of reference of another Commission department.

The annex provides a summary of the areas of research involved and an approximate breakdown of the allocation of resources between the various specific objectives.

The objectives of the agriculture section are chiefly directed at adapting production structures and improving productivity.

The objectives relating to fisheries concentrate on research into structural changes and the development of better techniques.

To these parts of the programme the Commission has allocated a minimum of 130m ECU for the period 1984-1987 - 115m ECU for agriculture and 15m ECU for fisheries.

The Commission's proposal relating to agricultural research sets aside 65m ECU for five years, i.e. 52m ECU for four years. It will therefore be possible to use the difference between 115m ECU and 52m ECU, i.e. 63m ECU, for research activities in the agricultural sector not yet provided for in the specific agricultural programme and concerning which, the Commission will, it is to be hoped, draw up proposals in the near future.

The proposed amount seems reasonable and is the minimum necessary if research is to have any real impact on agricultural policy.

The amount allocated to agricultural research will therefore increase by 7m ECU to 30m ECU a year. However, when seen in relation to the framework programme as a whole, the proposed amount constitutes no more than 1.86% of the total allocation for all scientific and technical research.

The Committee on Agriculture feels strongly that, in order to ensure the optimum coordination of all programmes, the number of staff needs to be raised in line with the increase in appropriations.

It points out, moreover, that conflicts may arise between agricultural policy on the one hand and research policy on the other. Although it welcomes the development of applications of biotechnology mentioned in the framework programme, the Committee on Agriculture would draw attention to the fact that most of the agricultural raw materials for biotechnology, such as cereals and sugar, are subject to market organizations whereas the biotechnological end products are not and may in fact be imported under GATT either duty-free or at fixed rates.

4. Conclusion

The Committee on Agriculture requests the committee responsible to incorporate the following conclusions in its report:

1. The framework programme proposed by the Commisson is to be welcomed as a first, very important step towards a more efficient common research policy.

2. The various Commission departments directly or indirectly involved in agricultural research are called upon to collaborate closely in the definition of objectives, the determination of the research activities to be carried out, and the assessment and practical implementation of the results.

3. The Commission is requested to investigate the extent to which some subjects such as bio-technological safety, teledetection and biomass can be researched at the Joint Research Centre in Ispra.

4. The Commission is called upon to consider whether the increase in financial resources also necessitates staff increases in the departments concerned and, if so, to make appropriate proposals to this effect.

5. The Committee on Agriculture expresses its approval of the content of the Commission proposal for the agriculture section and also of the minimum financial resources proposed.

6. The Commission is requested to submit without delay constructive proposals making it possible for the chemicobiotechnological industry to purchase agricultural raw materials at world market prices. This applies, for example, to sugar (as already provided for in Regulation EEC No. 1785/81, paragraph 31) and to starch and similar products.

GOAL 1 : PROMOTING AGRICULTURAL COMPETITIVENESS, INCLUDING FISHING

Approximate breakdown between the specific objectives.

Developing agricultural productivity and improving the quality and processing of agricultural products

Specific objectives	%
- Waste (including biomass)	20
- Marginal regions	10
- Crops in deficit	5
- Reduction of surpluses	15
- Food quality	10
- Improvement of animal production	15
- Biological and integrated control of diseases and pests	10
- Development and applications of advanced methodologies	15
- Information	< 3

Fisheries

Specific objectives	%
- Evaluation of stocks	35
- Fishing techniques	15
- Product processing techniques	15
- Environment (diseases in the natural environment, pollution, etc.)	15
- Aquaculture (including diseases in artificial environments)	20

Source: COM(82) 865 final, p. 30

MOTION FOR A RESOLUTION (DOCUMENT 1-1253/82

tabled by Mr LINKOHR

pursuant to Rule 47 of the Rules of Procedure

on a policy for technology which will lead to the creation of jobs in the poorer regions of the Community

The European Parliament,

A. having regard to the profound economic and cultural change that the third technological revolution will bring about,

B. whereas modernization of the economy alone cannot create full employment,

C. whereas the gap between rich and poor regions is being further increased by investment in rationalization,

D. whereas the high level of unemployment in the less developed areas of the Community cannot be dealt with by means of traditional industrial and regional policy?

E. having regard to the manifold potential of new technologies,

1. Believes that the research and technology policy of the Community should take more account of the needs of the less developed areas of the Community+

2. Calls upon the regions to make greater use of their innovative potential by, for example, setting up networks of links between craft and agricultural undertakings, schools, higher education establishments and research institutes, to make possible the spontaneous development of new technologies;

3. Sees a range of new technologies, e.g. alternative energy technology, as providing a potentially fruitful way of creating new and secure jobs from within existing structures;

4. Sees a regionally adapted research policy as providing an opportunity for encouraging the development of new jobs in the poorer regions of the Community;

5. Calls on the parliamentary committee responsible for research to examine the necessary preconditions of such a research and development policy and to set them out in an own-initiative report.